



MSDS

UPDATED 2018

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Updated on 2/22/2019



The Clorox Company
 1221 Broadway
 Oakland, CA 94612
 Tel. 1-510-271-7000

Material Safety Data Sheet

I Product: FORMULA 409® GLASS & SURFACE CLEANER	
Description: CLEAR, BLUE, THIN LIQUID WITH A CITRUS, FLORAL, POWDERY ODOR	
	Distributor
	The Clorox Sales Company 1221 Broadway Oakland, CA 94612
	Emergency Telephone Nos.
	For Medical Emergencies, call 1-800-446-1014. For Transportation Emergencies, call 1-800-424-9300 (Chemtrec).
II Health Hazard Data	III Hazardous Ingredients
<p>Eye contact may cause minor irritation.</p> <p>No medical conditions are known to be aggravated by exposure to this product.</p> <p><u>FIRST AID:</u></p> <p><u>EYE CONTACT:</u> Rinse with plenty of water. If irritation persists, call a doctor.</p> <p><u>SKIN CONTACT:</u> Rinse with plenty of water. If irritation persists, call a doctor.</p> <p><u>INGESTION:</u> Drink a glassful of water. Call a doctor or poison control center.</p> <p><u>INHALATION:</u> Move person to fresh air. If breathing problems develop, call a doctor.</p>	<p>This product is not hazardous as defined by 29 CFR Part 1910.1200 (OSHA).</p> <p>None of the materials in this product are on the IARC, OSHA, or NTP carcinogen lists.</p>
IV Special Protection and Precautions	V Transportation and Regulatory Data
<p><u>Hygienic Practices:</u> Wash hands after direct contact.</p> <p><u>Engineering Controls:</u> Use general ventilation to minimize exposure to product mist.</p> <p><u>Personal Protective Equipment:</u> Wear safety glasses. Wear rubber or neoprene gloves for sensitive skin or if there is the potential for repeated or prolonged skin contact.</p>	<p><u>DOT/IATA/IMDG:</u> Not restricted.</p> <p><u>EPA - SARA Title III/CERCLA:</u> This product is regulated under Sections 311/312. This product contains no chemicals that are regulated under Section 313 and contains potassium hydroxide (CAS # 1310-58-3, <0.1%) that is regulated under Section 304/CERCLA.</p> <p><u>TSCA 8(b):</u> All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.</p> <p><u>TSCA 12(b):</u> This product is not subject to TSCA 12(b) reporting requirements.</p>
VI Spill Procedures/Waste Disposal	VII Reactivity Data
<p><u>Spill Procedures:</u> Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.</p> <p><u>Waste Disposal:</u> Dispose of in accordance with all applicable federal, state, and local regulations.</p>	<p>Stable under normal use and storage conditions.</p>
VIII Fire and Explosion Data	IX Physical Data
<p>Not flammable or explosive.</p>	<p>pH..... 9 -11.5</p> <p>Specific gravity~1.0</p> <p>Solubility in waterSoluble</p>



Just Like New. Just Like Magic!™

Health	1
Fire	0
Physical	0
Pers. Protection	A

Material Safety Data Sheet

Blue Magic, Inc.
 1207 N FM 3083 E
 Conroe, TX 77303
 (888) 522-2746 or (936) 539-1555

CHEMTREC 24-HOUR EMERGENCY RESPONSE

TOLL-FREE NUMBER: (800) 424-9300

CHEMTREC should be contacted only in the event of chemical accidents involving, fire, spill, exposure, or other emergency situations involving the chemical product described herein.

Section 1: Chemical Product Identification

PRODUCT NAME: PURE CITRUS AIR FRESHENER (SOLID)

HMIS CODES

Health: 1 Flammability: 0 Physical: 0

PRODUCT NUMBER: NA90-6; NA90SK-A; NA91-6; NA91MX-6AZ; NA92-6; NA90CN-6; NA91CN-6; NA92MX-6; NA92CN-6; NA924SK

Section 2: Composition and Information on Hazardous Ingredients

HAZARDOUS INGREDIENTS:

<u>CAS NUMBER</u>	<u>CHEMICAL NAME</u>	<u>WEIGHT %</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OTHER LIMITS</u>
Mixture	Fragrance	1 -3	ND	ND	ND

This product contains no other hazardous ingredients at levels above 1% by weight.

Section 3: Hazards Identification

SUMMARY OF ACUTE HAZARDS

<u>ROUTE OF EXPOSURE</u>	<u>SIGN AND SYMPTOM</u>	<u>PRIMARY ROUTE</u>
INHALATION:	ND	NO
EYE CONTACT:	MAY CAUSE IRRITATION	YES
SKIN CONTACT:	MAY CAUSE IRRITATION	YES
INGESTION:	MAY CAUSE STOMACH DISTRESS, NAUSEA, AND VOMITING	YES

SUMMARY OF CHRONIC HAZARDS: None known

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: NA

Section 4: First Aid Measures

- **EYE:** Remove any contact lenses and flush with running water for 15 minutes. Obtain medical attention if irritation persists.
- **SKIN:** Flush with water. Wash with soap and water. If irritation persists, seek medical attention. Wash contaminated clothing before reuse.
- **INGESTION:** Do not induce vomiting. Rinse mouth out. Obtain medical attention immediately. If unconscious, never give anything by mouth.
- **INHALATION:** N/A.

Section 5: Fire and Explosion Data

FLASH POINT °F: None
EXTINGUISHING MEDIUM: NA

SPECIAL FIRE FIGHTING PROCEDURES: NA

UNUSUAL FIRE AND EXPLOSION HAZARDS: Hazardous combustion products-may include and are not limited to oxides of carbon.

FLAMMABILITY LIMITS: LEL: NA UEL: NA
AUTO-IGNITION TEMPERATURE: NA

Section 6: Accidental Release Measures

PERSONAL PROTECTIVE EQUIPMENT: ND

MATERIAL RELEASED OR SPILLS: Spills may be placed in suitable, covered, labeled containers. Prevent large spills from entering sewers, waterways, and soil.

Section 7: Handling and Storage

STORAGE: Keep out of reach of children. Store closed container upright away from incompatible materials and food. Do not store above 110°F.

OTHER PRECAUTIONS: Do not re-use empty containers.

Section 8: Exposure Controls and Personal Protection

RESPIRATORY PROTECTION: None

ENGINEERING CONTROLS: General ventilation normally adequate.

SPECIAL: NA

PROTECTIVE GLOVES: Not needed in normal use

EYE PROTECTION: Not required under normal conditions, but always advisable when using chemical products.

WORK/HYGENIC PRACTICES: Where use can result in skin contact, wash exposed area thoroughly before eating, drinking, smoking, or in food preparation. Launder contaminated clothing before re-use.

OTHER PERSONAL PROTECTION: As required by employer policies.

Section 9: Physical and Chemical Properties

APPEARANCE: Citrus colors

PHYSICAL STATE: Solid

VAPOR PRESSURE (mmHg): ND

SOLUBILITY IN WATER: Dispersible

SPECIFIC GRAVITY: 1.00

PARTITION COEFFICIENT OF WATER/OIL DISTRIBUTION: ND

ODOR: Citrus

BOILING POINT (°F): 212

VAPOR DENSITY (AIR=1): ND

MELTING POINT: 110-125

EVAPORATION RATE (ETHYL ACETATE =1): ND

pH: 9.2

Section 10: Stability and Reactivity

STABILITY: Stable

CONDITIONS TO AVOID: None

HAZARDOUS DECOMPOSITION PRODUCTS: May include, but is not limited to oxides of carbon.

INCOMPATIBILITY: Strong oxidizers

HAZARDOUS POLYMERIZATION: Will not occur



Health	2
Fire	3
Reactivity	0
Personal Protection	H

Material Safety Data Sheet Isopropyl alcohol MSDS

Section 1: Chemical Product and Company Identification

Product Name: Isopropyl alcohol

Catalog Codes: SLI1153, SLI1579, SLI1906, SLI1246, SLI1432

CAS#: 67-63-0

RTECS: NT8050000

TSCA: TSCA 8(b) inventory: Isopropyl alcohol

CI#: Not available.

Synonym: 2-Propanol

Chemical Name: isopropanol

Chemical Formula: C3-H8-O

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:
1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Isopropyl alcohol	67-63-0	100

Toxicological Data on Ingredients: Isopropyl alcohol: ORAL (LD50): Acute: 5045 mg/kg [Rat]. 3600 mg/kg [Mouse]. 6410 mg/kg [Rabbit]. DERMAL (LD50): Acute: 12800 mg/kg [Rabbit].

Section 3: Hazards Identification

Potential Acute Health Effects:

Hazardous in case of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant, sensitizer, permeator).

Potential Chronic Health Effects:

Slightly hazardous in case of skin contact (sensitizer). CARCINOGENIC EFFECTS: A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Development toxin [POSSIBLE]. The substance may be toxic to kidneys, liver, skin, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact:

Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Serious Skin Contact: Not available.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Flammable.

Auto-Ignition Temperature: 399°C (750.2°F)

Flash Points: CLOSED CUP: 11.667°C (53°F) - 12.778 deg. C (55 deg. F) (TAG)

Flammable Limits: LOWER: 2% UPPER: 12.7%

Products of Combustion: These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances:

Highly flammable in presence of open flames and sparks, of heat. Flammable in presence of oxidizing materials. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available. Explosive in presence of open flames and sparks, of heat.

Fire Fighting Media and Instructions:

Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog.

Special Remarks on Fire Hazards:

Vapor may travel considerable distance to source of ignition and flash back. CAUTION: MAY BURN WITH NEAR INVISIBLE FLAME. Hydrogen peroxide sharply reduces the autoignition temperature of Isopropyl alcohol. After a delay, Isopropyl alcohol ignites on contact with dioxgenyl tetrafluorborate, chromium trioxide, and potassium tert-butoxide. When heated to decomposition it emits acrid smoke and fumes.

Special Remarks on Explosion Hazards:

Secondary alcohols are readily autooxidized in contact with oxygen or air, forming ketones and hydrogen peroxide. It can become potentially explosive. It reacts with oxygen to form dangerously unstable peroxides which can concentrate and explode during distillation or evaporation. The presence of 2-butanone increases the reaction rate for peroxide formation. Explosive in the form of vapor when exposed to heat or flame. May form explosive mixtures with air. Isopropyl alcohol + phosgene forms isopropyl chloroformate and hydrogen chloride. In the presence of iron salts, thermal decomposition can occur, which in some cases can become explosive. A homogeneous mixture of concentrated peroxides + isopropyl alcohol are capable of detonation by shock or heat. Barium perchlorate + isopropyl alcohol gives the highly explosive alkyl perchlorates.



Health	3
Fire	1
Reactivity	0
Personal Protection	J

Material Safety Data Sheet Benzalkonium chloride MSDS

Section 1: Chemical Product and Company Identification

Product Name: Benzalkonium chloride *Towletts*

Catalog Codes: SLB1921

CAS#: 8001-54-5

RTECS: BO3150000

TSCA: TSCA 8(b) inventory: No products were found.

CI#: Not available.

Synonym: Zephiral, Zephiran chloride, Osvan, Paralkan, Germitol, Germicin, Enuclen, Drapolex, Drapolene, Cequaryl, Benzalkonium A, Benirol, Bayclean, Ammonyx; Alkyl dimethylbenzyl ammonium chloride; Ammonium, Alkyldimethyl(phenylmethyl) chloride; Alkylbenzyl dimethylammonium Chloride; Alkyldimethyl(phenylmethyl)quaternary ammonium chlorides; Quaternary ammonium compounds, alkylbenzyl dimethyl, chlorides

Chemical Name: Ammonium, alkyldimethylbenzyl-, chloride

Chemical Formula: Not available.

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:
1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Benzalkonium chloride	8001-54-5	100

Toxicological Data on Ingredients: Benzalkonium chloride: ORAL (LD50): Acute: 240 mg/kg [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects:

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (corrosive), of eye contact (corrosive). The amount of tissue damage depends on length of contact. Eye contact can result in corneal damage or blindness. Skin contact can produce inflammation and blistering. Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure can

POWER SERVICE PRODUCTS, INC.
MATERIAL SAFETY DATA SHEET



SECTION 1 - CHEMICAL COMPANY AND PRODUCT IDENTIFICATION

PRODUCT NAME: BIO KLEEN DIESEL FUEL BIOCID

Unless otherwise noted, all sections of this MSDS apply to each of the following part numbers.

PART NUMBERS:

9016-06, 9041-04, 9080-06, 9055-01

EPA ESTABLISHMENT NUMBER: 069633-TX-001

EPA REGISTERED PESTICIDE NUMBER: 464-659-069633 and 48301-7-069633

COMPANY IDENTIFICATION:

Power Service Products, Inc.
P.O. Box 1089
Weatherford, TX 76086
Email: psp@powerservice.com
Phone: 800/643-9089 or 817-599-9486
Fax: 817-599-4893

Emergency Phone Number: Within USA 1-800-424-9300. Outside USA 001-703-527-3887
(Call Collect).

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Specific chemical information is being withheld as a Trade Secret. Specific chemical information will be made available to health professionals in accordance with 29 CFR 1910.1200.

INGREDIENTS

4-(2-Nitrobutyl) morpholine
Methylene Dimorpholine
4,4'-(2-Ethyl-2-nitropropane-1, 3-diyl) bismorpholine
Morpholine
1-Nitropropane

Revised: March 31, 2010
Supersedes: March 24, 2009
POWER SERVICE BIO KLEEN DIESEL FUEL BIOCID

SECTION 3 - HAZARDS IDENTIFICATION

HAZARDS OF PRODUCT:

DANGER! Keep out of reach of children. Combustible liquid and vapor. Causes severe eye burns. Harmful if absorbed through skin. May cause allergic skin reaction. Keep upwind of spill. May be harmful if swallowed. Isolate area. Highly toxic to fish and/or other aquatic organisms.

POTENTIAL HEALTH EFFECTS:

EYES: May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur. Mist may cause severe eye injury and corneal injury.

SKIN: Brief contact may cause severe skin irritation with pain and local redness. Prolonged contact may cause skin irritation with local redness. Repeated contact may cause skin burns. Symptoms may include pain, severe local redness, swelling and tissue damage.

SKIN ABSORPTION: Prolonged or widespread skin contact may result in absorption of harmful amounts.

SKIN SENSITIAZTION: Skin contact may cause an allergic skin reaction.

INHALATION: Vapor from heated material or mist may cause respiratory irritation.

INGESTION: Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

SECTION 4 - FIRST AID MEASURES

EYE CONTACT: Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Eye wash fountain should be located in immediate work area.

SKIN CONTACT: Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly. Safety shower should be located in immediate work area.

INHALATION: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, and then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

Revised: March 31, 2010

Supersedes: March 24, 2009

POWER SERVICE BIO KLEEN DIESEL FUEL BIOCIDE

INGESTION:

Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

NOTES TO PHYSICIAN: Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. Probably mucosal damage may contraindicate the use of gastric lavage. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

EMERGENCY PERSONNEL PROTECTION: First aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

SECTION 5 - FIRE AND EXPLOSION HAZARD DATA**FLAMMABLE PROPERTIES:**

FLASH POINT: 160°F (71°C)

FLAMMABLE LIMITS: lower: Not Determined upper: Not Determined

AUTOIGNITION TEMPERATURE: Not Determined

EXTINGUISHING MEDIA: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. Water fog, applied gently may be used as a blanket for fire extinguishment.

FIRE FIGHTING PROCEDURES: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Water fog, applied gently may be used as a blanket for fire extinguishment. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this MSDS.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting

Revised: March 31, 2010

Supersedes: March 24, 2009

POWER SERVICE BIO KLEEN DIESEL FUEL BIOCID



The Clorox Company
7200 Johnson Drive
Pleasanton, California 94588
Tel. (510) 847-6100

Data Sheet

Product: CLOROX GERMICIDAL BLEACH		
Description:	CLEAR, LIGHT YELLOW LIQUID WITH CHLORINE ODOR	
Other Designations:	Manufacturer:	Emergency Telephone No.:
EPA Registration No. 5813-1 Sodium hypochlorite solution Liquid chlorine bleach Clorox Liquid Bleach	The Clorox Company 1221 Broadway Oakland, CA 94612	Rocky Mountain Poison Center (800) 446-1014 For Transportation Emergencies Chemtrec (800) 424-9300

II Health Hazard Data

Causes substantial but temporary eye injury. May irritate skin. May cause nausea and vomiting if ingested. Exposure to vapor or mist may irritate nose, throat and lungs. The following medical conditions may be aggravated by exposure to high concentrations of vapor or mist; heart conditions or chronic respiratory problems such as asthma, chronic bronchitis or obstructive lung disease. Under normal consumer use conditions the likelihood of any adverse health effects are low.

FIRST AID: **EYE CONTACT:** Immediately flush eyes with plenty of water. If irritation persists, see a doctor. **SKIN CONTACT:** Remove contaminated clothing. Wash area with water. **INGESTION:** Drink a glassful of water and call a physician. **INHALATION:** If breathing problems develop remove to fresh air.

IV Special Protection and Precautions

Hygienic Practices: Wear safety glasses. With repeated or prolonged use, wear gloves.

Engineering Controls: Use general ventilation to minimize exposure to vapor or mist.

Work Practices: Avoid eye and skin contact and inhalation of vapor or mist.

Keep out of the reach of children.

VI Spill or Leak Procedures

Small Spills (<5 gallons)

- 1) Absorb, containerize, and landfill in accordance with local regulations.
- 2) Wash down residual to sanitary sewer.*

Large Spills (>5 gallons)

- 1) Absorb, containerize, and landfill in accordance with local regulations; wash down residual to sanitary sewer.* - OR -
- 2) Pump material to waste drum(s) and dispose in accordance with local regulations; wash down residual to sanitary sewer.*

* Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

VIII Fire and Explosion Data

Not flammable or explosive. In a fire, cool containers to prevent rupture and release of sodium chlorate

III Hazardous Ingredients

Ingredients	Concentration	Worker Exposure Limit
Sodium hypochlorite CAS # 7681-52-9	6.25%	not established

None of the ingredients in this product are on the IARC, NTP or OSHA carcinogen list. Occasional clinical reports suggest a low potential for sensitization upon exaggerated exposure to sodium hypochlorite if skin damage (e.g. irritation) occurs during exposure. Routine clinical tests conducted on intact skin with Clorox Liquid Bleach found no sensitization in the test subjects.

V Transportation and Regulatory Data

U.S. DOT Hazard Class: Not restricted

U.S. DOT Proper Shipping Name: Hypochlorite solution with not more than 7% available chlorine. Not Restricted per 49CFR172.101(c)(12)(iv).

Section 313 (Title III Superfund Amendment and Reauthorization Act):
As a consumer product, this product is exempt from supplier notification requirements under Section 313 Title III of the Superfund Amendment and Reauthorization Act of 1986 (reference 40 CFR Part 372).

VII Reactivity Data

Stable under normal use and storage conditions. Strong oxidizing agent. Reacts with other household chemicals such as toilet bowl cleaners, rust removers, vinegar, acids or ammonia containing products to produce hazardous gases, such as chlorine and other chlorinated species. Prolonged contact with metal may cause pitting or discoloration.

IX Physical Data

Boiling point 212°F/100°C decompose
Specific Gravity (H₂O=1) 1.06
Solubility in Water complete
pH 11

©1983, 1991 THE CLOROX COMPANY

DATE PREPARED 11/92

DATA FURNISHED IS FOR USE ONLY IN CONNECTION WITH OCCUPATIONAL SAFETY AND HEALTH

95%

P.02

JAN-12-1996 10:19



The Clorox Company
 7200 Johnson Drive
 Pleasanton, California 94588
 Tel. (510) 847-6100

Material Safety Data Sheet
Hoja de Especificación para el
Uso Salvo de los Materiales

Producto: LEJIA GERMICIDA CLOROX®
Descripción: LIQUIDO LIMPIDO DE COLOR AMARILLO CLARO Y OLOR A CLORO

Otros nombres	Fabricante	Nos. telefónicos de emergencia
Registrado con la EPA bajo el No. 5813-1 Solución de hipoclorito de sodio Lejía de cloro líquido Lejía líquida Clorox	The Clorox Company 1221 Broadway Oakland, CA 94612	Rocky Mountain Poison Center (800) 446-1014 Para las emergencias involucrando el transporte: Chemtrec (800) 424-9300

I. Datos sobre los peligros a la salud
 Causa daños importantes pero temporales a los ojos. Puede irritar la piel. Puede causar náuseas y vómitos si se ingiere. El exponerse a los vapores o al rocío puede irritar la nariz, la garganta y los pulmones. Las siguientes condiciones de salud pueden agravarse si se expone uno a altas concentraciones del vapor o de rocío: las enfermedades cardíacas o los problemas respiratorios crónicos tales como el asma, la bronquitis crónica o los estados causados por obstrucciones pulmonares. Bajo condiciones normales de uso por el consumidor la probabilidad de efectos adversos a la salud es baja.
PRIMEROS AUXILIOS: CONTACTO CON LOS OJOS: Enjuáguese los ojos inmediatamente con agua en abundancia. Si persiste la irritación, consulte a un médico. **CONTACTO CON LA PIEL:** Quitese la ropa contaminada. Lave el área afectada con agua. **INGESTION:** Beba un vaso de agua y llame al médico. **INHALACION:** Si ocurren problemas al respirar, salga al aire fresco.

III. Ingredientes peligrosos

Ingredientes	Concentración	Límite de exposición para el trabajador
Hipoclorito de sodio CAS # 7681-52-9	5.25%	no ha sido establecido

Ninguno de los ingredientes en este producto se encuentran en la lista de carcinógenos de IARC, NTP u OSHA. Algunos reportes clínicos sugieren unpotencial bajo de sensibilización en casos de exposición exagerada al hipoclorito de sodio cuando ocurren daños a la epidermis (tales como las irritaciones) durante la exposición. Las pruebas clínicas rutinarias que se condujeran con epidermis intactas con la Lejía Líquida-Clorox no descubrieron sensibilizaciones en los sujetos sometidos a las pruebas.

V. Protección especial y precauciones
Prácticas higiénicas: Use gafas de seguridad. Use guantes para el uso repetido o extenso.
Controles de instalaciones: Use la ventilación general para reducir al mínimo la exposición a los vapores o al rocío.
Prácticas de trabajo: Evite el contacto con los ojos o la piel y la inhalación de los vapores o del rocío.
 Mantenga este producto fuera del alcance de los niños.

V. Datos de transporte y reglamentación oficial
Tipo de peligro de acuerdo con el Depto. de Transportes de E.E.U.U. (DOT): Sin restricciones.
Nombre correcto para el transporte de acuerdo al DOT: Solución hipoclorítica con un máximo del 7% de cloro aprovechable. Sin restricciones de acuerdo a 49CFR172 101(c)(12)(iv).
Sección 313 (Título III del Superfund Amendment and Reauthorization Act-ley medioambiental): Como producto de consumo, este producto se encuentra exento de los requisitos de notificación de proveedores bajo la Sección 313 Título III del Superfund Amendment and Reauthorization Act de 1986 (refiérase al 40 CFR Parte 372).

VI. Procedimientos en caso de derrames o pérdidas
Derrames pequeños (menos de 5 galones)
 (1) Absorba, ponga en recipientes y disponga en rellenos de tierra de acuerdo con las reglamentaciones locales.
 (2) Enjuague el residuo a los desagües sanitarios. ★
Derrames grandes (más de 5 galones)
 (1) Absorba, ponga en recipientes y disponga en rellenos de tierras de acuerdo con las reglamentaciones locales. Enjuague el residuo a los desagües sanitarios. ★ -O-
 (2) Bombeo el derrame a barriles de desechos y disponga de ellos de acuerdo con las reglamentaciones locales. Enjuague los residuos a los desagües sanitarios.
 ★ Contacte a las instalaciones de tratamiento sanitario por adelantado para asegurarse de que podrán procesar los materiales desechados.

VII. Datos de reactividad
 Estable bajo condiciones normales de uso y almacenamiento. Poderoso agente oxidante. Reacciona con otros productos químicos de uso en el hogar, tales como los limpiadores de inodoros, desherrumbrantes, productos que contengan vinagres, ácidos o amoníacos produciendo gases peligrosos tales como el cloro y otras especies de gases conteniendo cloro. El contacto prolongado con los metales puede causar marcas o descoloramiento.

III. Datos acerca de la inflamabilidad y explosividad
 No es inflamable ni explosiva. En caso de incendio, enfíe los recipientes para evitar la ruptura y liberación de clorato de sodio.

IX. Datos físicos
 Punto de ebullición _____ 212°F/100°C para la descomposición
 Peso específico H₂O=1 _____ 1.085
 Solubilidad en agua _____ Total
 pH _____ 11.4

ARI When Quality Counts

PO Box 510
Orchard Hill, GA 30266

Date: January 2009

MATERIAL SAFETY DATA SHEET

Section I – Product Identification

MANUFACTURER'S NAME:	ARI	EMERGENCY PHONE #:	800- 241-5064
ADDRESS:	PO BOX 510, ORCHARD HILL, GA 30266		
TRADE NAME:	BURN SPRAY 6		
SYNONYMS:	AEROSOL BURN SPRAY		
HMIS Health – 1 Fire - 3 Reactivity - 0			

Section II – Material Analysis/Active Ingredients

Component or Material Chemical Name	% of Mixture	CAS #	TLV
Benzocaine, USP	4.5%	94-09-7	Not established
Menthol	.15%	89-79-1	Not established
Benzethonium Chloride	.09%	57-09-0	Not established
Dipropylene Glycol	40.26%	025265-71-8	Not established
A-46 Hydrocarbon	55.0%	68476-86-8	1000 ppm

Section III – Physical Data

Boiling Point	449°F
Solubility in H2O % by weight	Completely miscible
Specific Gravity H2O = 1	1.032
Vapor pressure in can PSI at 70°F	46
% Volatiles by Volume	55.0%
PH	N/A
Appearance and Odor	Colorless liquid, slight menthol odor

Section IV – Fire and Explosion Data

Flash Point (Closed cup)	>200°F
Flammable Explosive Limits (% volume in air)	Lower: N/A Upper: 120°F
Extinguishing Methods	Dry chemical or CO2
Special fire and Explosion Procedures	Cool containers with water if exposed
Unusual Fire and Explosion Hazard	Product packaged in aerosol form, will

	explode under extreme heat.
--	-----------------------------

Section V – Health Hazard Information

HEALTH HAZARD DATA ROUTES OF EXPOSURE

Inhalation	May irritate upper respiratory tract and cause numbness.
Skin Contact	Mildly irritating
Eye Contact	Spray can cause pain and general inflammation.
Ingestion	May cause irritation and vomiting
Effects of Overexposure	Based on available data, repeated exposures are not anticipated to cause any significant adverse effects.

EMERGENCY AND FIRST AID PROCEDURES

Eye	Flush with large amounts of water, lifting upper lids.
Skin	Wash areas with soap and water
Ingestion	Rinse mouth, and consult a physician.
Inhalation	Remove to fresh air.

Section VI – Reactivity Data

Condition contributing to instability	Stable under normal storage conditions.
Incompatibility	Strong oxidizing agents.
Hazardous decomposition products	Oxides of carbon, aldehydes, and acids.
Conditions contributing to hazardous polymerization	Will not occur.

Section VII – Spill or Leak Procedures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

Neutralizing chemical	Flush spill area with water.
Waste disposal method	Dispose of in accordance with state, local and federal regulations.

MATERIAL SAFETY DATA SHEET
CALAMINE LOTION B.P.

1. Identification of the Product and Company

Product Name: CALAMINE LOTION B.P.
Product Code: CAL00786F
Other Names: None allocated
Use: For the relief of minor skin irritations, insect bites and sunburn.
Company Name & Contact Details Drug Information Pharmacist
 ORION Laboratories Pty Ltd ABN 56 009 293 136
 25-29 Delawney Street, Balcatta, Western Australia 6021 AUSTRALIA
Telephone (all hours): +618 9441 7800
 FREE PHONE: 1800 805 546 FREE FAX: 1800 004 110
 EMAIL: customerservice@orion.net.au; WEBSITE: www.orion.net.au

Other Information

ORION® is a registered trademark of Orion Laboratories Pty Ltd
 All reasonable care has been taken to ensure information and advice contained in this data sheet is accurate at time of printing. However, Orion accepts no liability for any loss or damages suffered as a consequence of reliance on the information contained herein.

2. Hazards Identification

Hazard Classification This product is not hazardous or dangerous
Risk phrase(s) No component is present at sufficient concentration to require a hazardous classification
Safety phrase(s) None allocated

3. Composition/Information on Ingredients

Chemical Entity	CAS No:	Proportion
Calamine	8011-96-9	15%
Glycerol	56-81-5	6.3%
Zinc Oxide	1314-13-2	5%
Bentonite	-	3%
Sodium Citrate .2H ₂ O	-	0.5%
Liquefied Phenol	108-95-2	0.5%
Purified Water	7732-18-5	To 100%

4. First Aid Measures

Inhalation: No data available.
Ingestion: If large quantities are swallowed, contact a doctor or Poisons Information Centre.
Skin: If a sensitivity reaction occurs, wash off with water and discontinue use.
Eye: If in eyes hold eyes open, flush with gently running water for at least 15 minutes.
Advice to Doctor: Treat symptomatically.

CHURCH & DWIGHT CO., INC.

CONSUMER PRODUCTS • SPECIALTY PRODUCTS



MATERIAL SAFETY DATA SHEET

MSDS NUMBER: MSDS-264

ISSUE DATE: 11/21/07

PAGE 1 OF 4

1. PRODUCT IDENTIFICATION

Product Name

ARM & HAMMER® Carpet & Room Allergen Reducer and Odor Eliminator
(Powder-All Scents)

Emergency Phone:

1-800-424-9300 (U.S.A.)

Medical Emergency Phone:

1-888-234-1828

Information Phone:

1-800-524-1328

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

White granular powder; odor as described on label.
Potential workplace nuisance dust.
Not a fire hazard.
No significant health or environmental effects associated with this material.

HMIS Rating

Health	1
Fire	0
Reactivity	0

Potential Health Effects

EYE: Not an eye irritant. Potential for slight irritation due to mechanical action if eyes are left unwashed.

SKIN CONTACT: Not a skin irritant.

INGESTION: Material is considered non-toxic. Ingestion of small amounts (1-2 tablespoonfuls) is not likely to cause injury. Ingestion of larger amounts may cause abdominal discomfort or injury.

INHALATION: Inhalation of dusts may cause irritation to the nose, throat and lungs.

SUBCHRONIC EFFECTS/CARCINOGENICITY: None Known. Not listed as a carcinogen or potential carcinogen by IARC, NTP, OSHA, or ACGIH.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Ingredient</u>	<u>% By Weight</u>	<u>CAS Number</u>
Sodium Bicarbonate	> 96%	144-55-8
Fragrance Blend	< 2%	proprietary mixture

Consumer Use: Exempt from OSHA and WHMIS requirements as packaged consumer household products. These products would not be considered hazardous under the OSHA and WHMIS Standards.

CHURCH & DWIGHT CO., INC.

CONSUMER PRODUCTS • SPECIALTY PRODUCTS



MATERIAL SAFETY DATA SHEET

MSDS NUMBER: MSDS-264

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PAGE 2 OF 4

Workplace Considerations: Contains no hazardous ingredients as defined or listed in 29 CFR 1910 at greater than 1%, and 0.1% for carcinogens.

4. FIRST AID MEASURES

EYES: Check for and remove contact lenses if present. Flush eyes with clean flowing water, low pressure and lukewarm if possible, occasionally lifting upper and lower eyelids. Seek medical attention if irritation develops.

SKIN: Wash exposed areas with soap or mild detergent and water.

INHALATION: Remove from area of exposure. Treat symptomatically. Seek medical attention if person has difficulty breathing.

INGESTION: If large amounts of material are swallowed, do not induce vomiting. If person is conscious, give two glasses of water to drink. **Do not attempt to give anything orally to an unconscious person.** Seek medical attention.

NOTE TO PHYSICIAN: Large doses may produce systemic alkalosis and expansion in extra cellular fluid volume with edema. Normal body mechanisms will handle excretion of excess material. Treatment based on judgement of physician in reaction to patient.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASHPOINT: Not flammable

METHOD USED: Not applicable

FLAMMABLE LIMITS

LFL: Not applicable

UFL: Not applicable

EXTINGUISHING MEDIA: None combustible material. Use extinguishing media appropriate for surrounding fire.

FIRE-FIGHTING INSTRUCTIONS: Carbon dioxide and irritating dusts may be generated by thermal decomposition. Wear a self-contained breathing apparatus (SCBA) and full protective equipment (Bunker Gear).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

6. ACCIDENTAL RELEASE MEASURES

Scoop up into a clean, dry waste container. Avoid stirring up dusts. Wash away residue with water.

7. HANDLING AND STORAGE

Store in cool, dry areas and away from incompatible substances (acids).

This product will react with acids to yield carbon dioxide gas that can accumulate in confined spaces. Do not enter confined spaces until they have been well ventilated and carbon dioxide levels have been determined to be safe.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

RECOMMENDED EXPOSURE LIMIT: 10 mg/m³ as a nuisance dust (ACGIH).

RESPIRATORY PROTECTION: Not normally required. Wear a NIOSH approved dust respirator if dust level exceeds recommended exposure limit.

PROTECTIVE GLOVES: Not normally required. Wear general-purpose gloves for excessive handling and exposure conditions.

EYE PROTECTION: Not normally required. Safety glasses with side shields or safety goggles are recommended if excessive dust is generated.

FRESH SCENT CLOROX® DISINFECTING WIPES *& Spray*

1: FRAGRANCED, MOISTENED TOWELETTE

Identifications	Distributor	Emergency Telephone
EPA Reg. No. 5813-58	Clorox Sales Company 1221 Broadway Oakland, CA 94612	For Medical Emergencies: (800) 446-1014 For Transportation Emergencies: (800) 424-9300

I Hazard Data

cause moderate eye irritation.
should be practically non-toxic if ingested.
prolonged skin contact may produce minor irritation.

1- Flush with plenty of water. Call a physician if irritation
persists. **INGESTION**- Drink a glassful of water. Call a physician or
toxicologist. **SKIN**- Wash thoroughly with soap and water after
use. **INHALATION**- If breathing is affected, move to fresh air.

Under normal use conditions the likelihood of any adverse health

III Hazardous Ingredients

Ingredient	Concentration	Worker Exposure Limit
n-Alkyl (C14, 60%; C16, 30%; C12, 5%; C18, 5%) dimethylbenzyl ammonium chloride	0.145%	Not established
n-Alkyl (C12, 68%, C14, 32%) Dimethyl Ethylbenzyl ammonium chloride	0.145%	Not established
Isopropanol CAS #67-63-0	1-5%	400 ppm 400 ppm

¹1998 ACGIH, TLV-TWA/STEL
TLV-TWA- Threshold Limit Value-Time Weighted Average.
STEL- Short Term Exposure Limit
²PEL- OSHA Permissible Exposure Limit

None of the ingredients in this product are on the IARC, NTP or carcinogen lists.

IV Protection and Precautions

Warnings or precautions have been identified for using this product under normal use conditions.

Recommendations are given for production facilities and for other situations where there is increased potential for accidental, prolonged exposure.

1- Wear safety glasses. Use rubber or nitrile gloves if in contact, especially for prolonged periods.
2- Avoid eye and skin contact and inhalation of vapor or mist. Do not eat, drink, or use for food. Not for personal cleansing.

KEEP OUT OF REACH OF CHILDREN

V Transportation and Regulatory Data

U.S. DOT, IATA, IMDG Hazard Class: Not restricted.

U.S. DOT Proper Shipping Name: None

EPA- SARA Title III/CERCLA: Product may be regulated under Section 311/312. This product contains no chemicals regulated under Section 304/CERCLA or Section 313.

TSCA/DSL: All chemicals in this product are listed on the TSCA. The DSL status for some components has not been determined.

VI Procedures/Waste Disposal

Absorb and containerize. Wash residual down to sanitary sewerage treatment facility in advance to assure ability to handle own material.

Disposal must be made in accordance with applicable federal, state, and local regulations.

VII Reactivity Data

Stability: Mixing with sodium hypochlorite may release small amounts of formaldehyde gas.

Storage/Disposal: Do not use or store near heat or open flame.

VIII Explosion Data

Test Method: Closed cup.
Explosion Hazard: None

IX Physical Data

Flashpoint



MATERIAL SAFETY DATA SHEET

MSDS: FH/C/2003/BCWT-5RYR49

Issue Date: October 24, 2008

Supersedes: N/A

Issue Date: February 12, 2006

SECTION I - CHEMICAL PRODUCT

Identity: **Liquid Cleaner**

Brands: **COMET Cleaner with Bleach (Professional Line)**

Hazard Rating:

Health: 1

4=EXTREME

Flammability: 0

3=HIGH

Reactivity: 0

2= MODERATE

1=SLIGHT

0=NOT SIGNIFICANT

Emergency Telephone Number: 1-800-332-7787 or call Local Poison Control Center

SECTION II - COMPOSITION AND INGREDIENTS

Ingredients/Chemical Name: Water (7732-18-5), sodium hydroxide (1310-73-2), sodium hypochlorite (7681-52-9), sodium salt (142-31-4 & 151-21-3), surface safety agent and perfume.

This mixture, when tested as a whole, is considered an eye irritant within the meaning of the OSHA Communication Standard

Hazardous Ingredients as defined by OSHA, 29 CFR 1910.1200 and/or WHMIS under the HPA:

<u>Chemical Name</u>	<u>Common Name</u>	<u>CAS No.</u>	<u>Recommended Limits</u>	<u>Composition Range</u>	<u>LD50/LC50</u>
Sodium hypochlorite	Bleach	7681- 52-9	ACGIH STEL: 2mg/m ³	0.5-1.5%	
Sodium hydroxide	Caustic soda	1310-73-2	ACGIH STEL: 2 mg/m ³ OSHA PEL: 2 mg/m ³	0.1-1%	

SECTION III - HAZARDS IDENTIFICATION

Health Hazards (Acute and Chronic):

Ingestion: May cause mild , transient gastrointestinal irritation with nausea, vomiting or diarrhea.

Eye Contact: May cause mild, transient irritation with stinging and tearing similar to that caused by other detergents.

Skin: May be irritating to skin. May further irritate already irritated or extremely dry skin.

Inhalation: Mild mucous membrane irritant.

SECTION IV - FIRST AID INFORMATION

Emergency and First Aid Procedures:

Ingestion: Drink 1 or 2 large glasses of water. If large amounts are ingested, call a physician.
 Eye Contact: Flush with large amounts of water for at least 15 minutes.
 Skin: Wash exposed area thoroughly with soap and water and discontinue use. Remove contaminated clothing.
 Inhalation: Leave the area.

Other: Product package has a caution statement: PRECAUTION: EYE IRRITANT: Avoid contact with eyes. May be irritating to skin. For sensitive skin or prolonged use, wear gloves. Do not mix with other cleaning products as irritating fumes may be released. Contains Sodium Hypochlorite. In case of eye contact, flush thoroughly with water for 15 minutes. Call a physician immediately.

SECTION V - FIRE FIGHTING INFORMATION

Flash Point (Method Used): over 200°F (cc) **Explosive Limits:** *LEL:* N/A *UEL:* N/A
Extinguishing Media: CO₂, water, dry chemical or "alcohol" foam
Special Fire Fighting Procedures: Use water to keep fire exposed container cool.
Unusual Fire Hazards: None known.

SECTION VI - ACCIDENTAL RELEASE MEASURES

Personal Precautions: None

Environmental Precautions: DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL, STATE, PROVINCIAL AND LOCAL REGULATIONS. Undiluted waste from this product is RCRA "Corrosive" D002 classification. Check pH before sewerage. pH trim may be necessary if waste has a pH of 12.5 or above. Do not landfill.

Steps To Be Taken in Case Large Quantities of Material are Released or Spilled: Contain the spill. Try to prevent large quantities from reaching waterway or sewer. Use water spray or dilute and/or wash away spills to avoid exposure and to protect persons working to stop/repair leak. Dispose of resulting waste as appropriate (check pH).

SECTION VII - HANDLING AND STORAGE

Precautions To Be Taken in Handling and Storing: Handling and storage must be well ventilated, cool, and dry. Store product away from potential sources of ignition. Fire fighting equipment must be available at all times.

Other Precautions: Keep away from heat/sparks and open flame.

SECTION VIII - EXPOSURE CONTROLS, PERSONAL PROTECTION

Respiratory Protection (Specify Type): None required with normal use.

Ventilation General

Eye Protection: None required with normal use.

Manufacturing Setting: For splash protection, use chemical goggles. Eye wash fountain is desirable.

Protective Gloves: None required with normal use.

Other Protective Equipment: None required with normal use.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point °F: N/A	Specific Gravity @ 25°C (H₂O=1): 1.040 - 1.050
Vapor Pressure (mm Hg): N/A	Percent Volatile by Volume (%): N/A
Vapor Density (Air=1): N/A	Evaporation Rate (nBuOAc=1): N/A
Coefficient of Water/Oil Distribution: N/A	Freezing Point: N/A
Appearance and Odor: Clear liquid Product is perfumed.	pH (100%): 12.6 – 13.4
	Solubility in Water: Completely
	Reserve Alkalinity: N/A

SECTION X - STABILITY AND REACTIVITY

Possible Hazardous Reactions/Conditions/By Products: None known	
Conditions to Avoid: None	
Materials to Avoid: Do not mix with other products, especially toilet bowl cleaners, acidic cleaners or products that contain ammonia.	
Hazardous Decomposition Products: None known	
Other Recommendations: None	
Stability:	Stable
Hazardous Polymerization:	Will not occur

SECTION XI - TOXICOLOGICAL INFORMATION

LD50 (rats oral): >6.5 g/kg
Comet Cleaner with Bleach has a relatively low order of toxicity. It may be irritating, but it is not expected to be corrosive. It is expected to be emetic.

SECTION XII - ECOLOGICAL INFORMATION

No environmental concerns.

SECTION XIII - DISPOSAL CONSIDERATIONS

Waste Disposal Method: DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH FEDERAL, STATE, PROVINCIAL AND LOCAL REGULATIONS. Undiluted waste from this product is RCRA "Corrosive" hazardous if pH is 12.5 or more. Check pH before deciding on the route of disposal. Hazardous waste treatment to reduce the pH may become necessary prior to disposal. Do not landfill.

SECTION XIV - TRANSPORT INFORMATION

DOT Classification: Comet Cleaner with Bleach is not DOT hazardous in packages as sold. Bulk product shipments are classified as Class 9 Hazardous Substance with a shipping name of Environmentally hazardous substance, liquid n.o.s.

SECTION XV - ADDITIONAL REGULATORY INFORMATION			
All components are listed on the US TSCA Inventory.			
No components of Comet Cleaner with Bleach are subject to California Proposition 65.			
EPA CERCLA TITLE III			
<u>Chemical Name</u>	<u>CERCLA304 RQ (LBS)</u>	<u>311/312</u>	<u>313</u>
Sodium hypochlorite	100	no	no
Sodium hydroxide	1000	no	no
CANADA:			
DIN 02250357			
All ingredients are CEPA approved for import to Canada by Procter & Gamble. This product has been classified with Hazard Criteria of the Canadian Control Products Regulation (CPR) and this MSDS contains all information required by the Canadian Products Regulation.			

SECTION XVI - OTHER INFORMATION	
*N/A. - Not Applicable	*N/K. - Not Known
The submission of this MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied is for use only in connection with occupational safety and health.	
The information contained herein has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. The information relates to the specific material designated herein, and does not relate to the use in combination with any other material or any other process. Procter & Gamble assumed no responsibility for injury to the recipient or third persons, for any damage to any property resulting from misuse of the controlled product.	

Material Safety Data Sheet



Professional
Disposables
International, Inc.

NFPA	HMIS						
	<table border="1"><tr><td>Health Hazard</td><td>1</td></tr><tr><td>Fire Hazard</td><td>1</td></tr><tr><td>Reactivity</td><td>0</td></tr></table>	Health Hazard	1	Fire Hazard	1	Reactivity	0
Health Hazard	1						
Fire Hazard	1						
Reactivity	0						

Issuing Date 09-Sep-2008

Revision Date

Revision Number 0

NFPA/HMIS Ratings Legend

Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Sani Cloth® Disinfecting Wipes (Fresh Air Scent)
Product Code(s) WPS-NP-025F
Recommended Use Disinfecting wipes.
EPA Registration Number EPA Reg. No. 9480-5-72956 (FIFRA)

Supplier Address
Professional Disposables
International, Inc.
Two Nice-Pak Park
Orangeburg, NY 10962
P: 845-365-1700

Nice-Pak Products, Inc.
Two Nice-Pak Park
Orangeburg, NY 10962
P: 845-365-1700

2. HAZARDS IDENTIFICATION

CAUTION!

Emergency Overview

Combustible

Causes moderate eye irritation

Avoid contact with eyes and clothing

Wash hands before eating, drinking, chewing gum, using tobacco, or using toilet

Have the product container or label with you when calling a poison control center or doctor or going for treatment

Appearance Colorless, Slightly yellow

Physical State Pre-moistened towelette.

Odor Fresh

Potential Health Effects

Principle Routes of Exposure

Skin contact, Eye contact.

Acute Toxicity

Eyes

Causes moderate eye irritation.

Skin

Non-irritating during normal use.

Inhalation

Not an expected route of exposure.

Ingestion

May be harmful if swallowed.

Chronic Effects

No known effect.

Aggravated Medical Conditions

Preexisting eye disorders, Skin disorders.

Environmental Hazard

See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
2-Propanol, 1-(1-methyl-2-propoxyethoxy)-	29911-27-1	1-5
n-Alkyl(68% C12,32% C14) dimethyl ethylbenzyl ammonium chlorides	68391-01-5	0.14
Quaternary ammonium compounds, C12-18-alkyl[(ethylphenyl)methyl]dimethyl, chlorides	68956-79-6	0.14

4. FIRST AID MEASURES

General Advice

Call a poison control center or doctor for treatment advice. Have the product containers or label with you when calling a poison control center or doctor, or going for treatment.

Eye Contact

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

Skin Contact

Wash skin with soap and water. If symptoms arise, call a physician.

Inhalation

Move to fresh air in case of accidental inhalation of vapors or decomposition products. If symptoms arise, call a physician.

Ingestion

Call a physician or Poison Control Center immediately. Do NOT induce vomiting. Drink plenty of water.

Notes to Physician

Treat symptomatically.

Protection of First-aiders

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Sanford NA
 2711 Washington Boulevard
 Bedford, IL 60104
 Phone: 708-547-6650 or 800-323-0749

Emergency Medical Number: 888-786-0972

Creation Date: October 20, 2003

Section One: Product Information

Product Name: Expo Dry Erase Cleaner
 Colors: Clear

Sanford is a member of The Art and Creative Materials Institute, Inc. This product is certified by the Institute to be labeled in accordance with the voluntary chronic hazard labeling standard ASTM D-4236 and is labeled with the CL (Cautionary Label) Seal. Products bearing the CL Seal are certified to be properly labeled in a program of toxicological evaluation by a medical expert for any known health risks and with information on safe and proper use of these materials. Conforms to ASTM D-4236.

Section Two: Composition

Water, 2-Butoxyethanol (111-76-2), isopropyl alcohol (67-63-0)

Section Three: Hazards Identification

WARNING: COMBUSTIBLE. VAPOR HARMFUL. MAY BE HARMFUL IF SWALLOWED, OR BY SKIN CONTACT. EYE IRRITANT.
 CONTAINS: 2-BUTOXYETHANOL, ISOPROPYL ALCOHOL. PRECAUTIONS: Avoid ingestion. Keep away from eyes. Do not store or use near heat or flame. Use only with adequate ventilation. KEEP OUT OF REACH OF CHILDREN. FIRST AID: If eye contact occurs, rinse with tap water for 5-10 minutes. If irritation persists, seek medical care. If skin contact occurs, wash with soap and water for 5 minutes. If swallowed, get prompt medical attention. For further health information, contact a poison control center or call 888-786-0972.

Section Four: First Aid Measures

Inhalation: If symptoms occur, move to fresh air.
 Skin Contact: If skin contact occurs, wash with soap and water for 5 minutes.
 Eye Contact: If eye contact occurs, rinse with tap water for 5-10 minutes. If irritation persists, seek medical care.
 Ingestion: If swallowed, get prompt medical attention.

Section Five: Fire Fighting Measures

Flash Point: 105F (TCC)
 Flammability Limits (% by volume): Lower: 2.2% (isopropyl alcohol) Upper: Not available
 Extinguishing Media: As appropriate for surrounding area.
 Special Fire Fighting Measures: None
 Unusual Fire and Explosion Hazards: None

Section Six: Accidental Release Measures

In Case of Spill or Accidental Release: Wipe up with absorbent material.

Section Seven: Handling and Storage

Handling: Use in a well-ventilated area. Aim nozzle away from eyes.
 Storage: Do not store or use near heat or flame.

Section Eight: Exposure Controls and Personal Protection

Eye Protection: None under normal use conditions. Avoid prolonged eye contact.
 Clothing: None under normal use conditions.
 Respirator: None under normal use conditions.
 Ventilation: None under normal use conditions. Use in a well ventilated area.

Section Nine: Physical and Chemical Properties

For product unless otherwise specified:

Boiling Point: 180F (isopropyl alcohol)
 Specific Gravity: 0.96
 Vapor Pressure: 33 mg Hg (isopropyl alcohol)
 Solubility in Water: complete
 Evaporation Rate: Not available
 Appearance; Odor: Clear liquid; alcoholic odor

Section Ten: Stability and Reactivity

Stability: Stable
 Conditions to Avoid: None known
 Chemical Incompatibility: Strong oxidizers, acids, isocyanates
 Hazardous Decomposition: None known
 Hazardous Polymerization: Will not occur.

Section Eleven: Toxicological Information

IARC Monographs: No
 National Toxicology Program: No
 OSHA Regulated: No

Section Twelve: Ecological Information

Not available

Section Thirteen: Disposal Considerations

Dispose in accordance with Federal, State, and Local Regulations.

Section Fourteen: Transport Information

ORM-D Consumer Commodity
 Flammable Liquid, n.o.s. (isopropanol), 3, UN1993, PGIII (105F TCC), Ltd. Qty's, EmS#3-07
 Consumer Commodity, 9, ID8000, packing instruction 910

Section Fifteen: Regulatory Information

TSCA INVENTORY: The product on this Material Safety Data Sheet is not listed on the Toxic Substances Control Act Inventory. All ingredients used to manufacture this product are listed on the TSCA Inventory

Section Sixteen: Other Information

HMIS Code	
Health	2
Flammability	2
Reactivity	0
Personal Protection	H

0=Minimal / 4 = Severe

Sanford NA has been advised by Counsel that the OSHA Hazard Communication Standard does not apply to the Sanford Product described in this Material Safety Data Sheet. The reason for the exemption is contained in 29 CFR 1910.1200(b)(6)(ix) as amended July 1, 2002 per the Code of Federal Regulations. The information contained in this MSDS is forwarded to you for your information, but is not meant to imply that the product is covered by the Hazard Communication Standard nor is this MSDS meant to comply with all requirements of the Hazard Communication Standard.



MATERIAL SAFETY DATA SHEET

MSDS #: FH/F/2004/VBVV-63YQ5Y
 Supersedes: FH/F/2004/MBMS-5ZCGW9

Issue Date: 8/30/04
 Issue Date: 6/22/04

SECTION I - CHEMICAL PRODUCT

Identity: **Fabric Refresher**

Brands: **FEBREZE (All variations)**

Hazard Rating:	Health:	1	4=EXTREME
	Flammability:	2	3=HIGH
	Reactivity:	0	2= MODERATE
			1=SLIGHT

Emergency Telephone Number: P&G Operator: 1-800-308-EASY (1-800-308-3279) or call Local Poison Control Center

SECTION II - COMPOSITION AND INGREDIENTS

Ingredients include: Contains water, alcohol, odor eliminator derived from corn, fragrance

Hazardous Ingredients as defined by OSHA, 29 CFR 1910.1200.

<u>Chemical Name</u>	<u>Common Name</u>	<u>CAS No.</u>	<u>Recommended Limits</u>	<u>Concentration</u>	<u>LC50/LD50</u>
Ethyl alcohol	Ethanol	64-17-5	OSHA Z-1 PEL: 1000 ppm (1900mg/m3) ACGIH TWA: 1000 ppm (1880 mg/m3) NIOSH REL: 1000 ppm (1900 mg/m3)	1-5%	LD50=13 mL/kg (oral, rats) LC50=N/A

SECTION III - HAZARDS IDENTIFICATION

Health Hazards (Acute and Chronic):

Ingestion: None
 Eye Contact: Mild eye irritant.
 Inhalation: None

Signs and Symptoms of Exposure:

Ingestion: Possible mild gastrointestinal irritation with nausea, vomiting, and/or diarrhea.
 Eye Contact: Do not spray directly toward face. If eye contact occurs, rinse well with water.
 Skin: Prolonged skin contact or instillation into the eye may result in transient, superficial effects similar to those produced by mild toilet soap.
 Inhalation: Inhalation of high concentrations of ethanol vapor may cause irritation of the eyes and respiratory tract, drowsiness, and fatigue.

SECTION IV - FIRST AID INFORMATION	
Emergency and First Aid Procedures:	
Inhalation: Remove to fresh air.	
Ingestion: Dilute with fluids and treat symptomatically.	
Eye Contact: Rinse well with water for at least 15 minutes.	
Skin: Rinse with water.	
Other: Consumer product packages have a caution statement: USE ONLY AS INTENDED. KEEP OUT OF THE REACH OF CHILDREN. Do not spray directly toward face. If eye contact occurs, rinse well with water.	

SECTION V - FIRE FIGHTING INFORMATION			
Flash Point (Method Used): >> 141° F (cc)	Explosive Limits:	<i>LEL:</i> N/A	<i>UEL:</i> N/A
Extinguishing Media: Use CO ₂ , water, or dry chemical.			
Special Fire Fighting Procedures: N/A			
Unusual Fire Hazards: N/A			
Stability	<i>Unstable:</i>	<i>Conditions to Avoid:</i> None	
	<i>Stable:</i> X		
Incompatibility (Materials to Avoid): None known			
Hazardous Decomposition/By Products: None known			
Hazardous Polymerization:	<i>May Occur:</i>	<i>Conditions to Avoid:</i> None	
	<i>Will Not Occur:</i> X		

SECTION VI - ACCIDENTAL RELEASE MEASURES	
Personal Precautions: Use chemical goggles and protective gloves (rubber, neoprene) during spill clean-up.	
Environmental Precautions: DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL, STATE OR PROVINCIAL AND LOCAL REGULATIONS. Slowly flush down sewer with excess water or dispose as liquid scrap. Discard empty container in trash. Do not landfill liquids.	
Steps To Be Taken in Case Material is Released or Spilled: Use water spray to dilute and/or wash away spills to avoid exposure and to protect persons working to stop/repair leak. Any spills are to be prevented from entering waterways. Sorbents may be used.	

SECTION VII - HANDLING AND STORAGE	
Precautions To Be Taken in Handling and Storing: Store at room temperature.	
Other Precautions: None	

MATERIAL SAFETY DATA SHEET — 16 Sections

1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SpectraFix Spray Fixative				[WHMIS Classification] B2, D2A	
Product Use Artist Material Spray Fixative					
Manufacturer's Name Ms. Natural			Supplier's Name Ms. Natural		
Street Address 80 Fresno St.			Street Address P.O. Box 330034		
City San Francisco		State CA	City San Francisco		State CA
Zip 94133	Emergency Telephone 510-717-4253		Zip 94133	Emergency Telephone 510-717-4253	
Date MSDS Prepared Sept. 22 2011		MSDS Prepared By Della Heywood		Phone Number 510-717-4253	

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients (<i>specific</i>)	%	CAS Number	LD ₅₀ of Ingredient (<i>specify species and route</i>)	WMIS / Hazard
Ethanol (grain alcohol)	23.0	67-17-5	2080 – rat, oral	B2 D2B Flammable, Nervous System Depressant
Isopropyl alcohol	1.0	67-63-0	5045 – rat, oral	B2 D2B Flammable, toxic
Water	70.0			
Casein	6.0	9000-71-9	No Exposure Limit	Milk Protein

SECTION 3 — HEALTH INFORMATION (for Specially De-Natured Alcohol 3C, 200 proof, comprising 24% by volume.)

INHALATION: Exposure to over 1000 ppm pure denatured alcohol may cause headache, drowsiness and lassitude, loss of appetite and inability to concentrate. SpectraFix contains only 24% Denatured alcohol + water.

INGESTION: Pure denatured alcohol can cause depression of central nervous system, nausea, vomiting and diarrhea.

EYE CONTACT: Liquid or vapor from pure denatured alcohol may cause irritation to eyes. SpectraFix will not irritate eyes ordinarily.

SKIN CONTACT: May cause irritation and defatting of skin on prolonged contact with pure denatured alcohol. SpectraFix only contains 24% denatured alcohol, so irritation from skin contact is unlikely under ordinary circumstances.

SECTION 4 — FIRST AID MEASURES

Skin Contact: Wash hands if they become soaked with SpectraFix.

Eye Contact: Eyes should be flushed for at least 15 minutes. Get medical attention if necessary.

Inhalation: Remove victim to fresh air. If victim has stopped breathing, give artificial respiration. Get medical attention.

Ingestion: If victim is conscious, have them drink water to dilute. Call Poison Control immediately. Do not induce vomiting.

5 — FIRE FIGHTING MEASURES

If yes, under which conditions? Highly flammable in presence of open flames and sparks, of heat. Flammable in presence of oxidizing materials Non-flammable in presence of shocks.		
Method of Extinction Water , chemical powder, foam or CO2.		
Flashpoint (° F) and Method 100° F ASTM D-56	Upper Flammable Limit (% by volume) 19	Lower Flammable Limit (% by volume) 3.3
Autoignition Temperature (°F) 685° F	Explosion Data — Sensitivity to Impact Non-Flammable in presence of shocks	Explosion Data — Sensitivity to Static Discharge Low Flammability in presence of flame
Hazardous Combustion Products Oxides of carbon, oxides of nitrogen, and other organic combustion products.		
[NFPA] Health: (0); Fire: (2); Reactivity: (0);		

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Leak and Spill Procedures Clean up with water, prevent contact with flame or sparks.

SECTION 7 — HANDLING AND STORAGE

Handling Procedures and Equipment

No respiratory danger, or danger from exposure when handled as directed. Avoid spraying directly into eyes. Do not drink this product. Contains Isopropyl alcohol.

Storage Requirements

Do not store near flames or sources of ignition. Will not explode or ignite.

SECTION 8 — EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limits <input type="checkbox"/> ACGIH TLV <input type="checkbox"/> OSHA PEL <input type="checkbox"/> Other (specify)
Specific Engineering Controls (such as ventilation, enclosed process)
Personal Protective Equipment NONE



Spartan Chemical Company, Inc.

Material Safety Data Sheet

SECTION I: PRODUCT INFORMATION

Product Name or Number (as it appears on label):
CITRO SHIELD FURNITURE POLISH(AEROSOL)
 Product Number: 6120

Product Division:
Janitorial

Spartan Chemical Company, Inc.
1110 Spartan Drive
Maumee OH 43537

Product/Technical Information: **1-(800)-537-8990**
 Medical Emergency: **1-(888)-314-6171 (24 hours)**
 Chemical Leak/Spil Emergency: **CHEMTREC 1-(800) 424-9300 (24 hours)**

Shipping Description: ORM-D, Consumer commodity, cleaning compounds, aerosol, n.o.s.

NFPA Ratings:	HMIS Ratings:
Health: 0 - Minimal Fire: 0 - Minimal Reactivity: 1- Slight	Health: 0 - Minimal Fire: 0 - Minimal Reactivity: 1- Slight Pers. Prot. Equip.: A - Safety Glasses

SECTION II: HAZARDOUS INGREDIENTS

(Listed when present at 1% or greater, carcinogens at 0.1% or greater) All component chemicals are listed or exempted from listing on the "TSCA Inventory" of chemical substances maintained by the U.S. Environmental Protection Agency.

Chemical Name(s)	%Wt	CAS Registry No.	Table Z-1-A			Carcinogen
			TWA mg/m ³	STEL mg/m ³	CEILING mg/m ³	
Isobutane	01-05	75-28-5	1900 (NIOSH)	Not Established	Not Established	No

SECTION III: PHYSICAL DATA

Boiling Point: 212 °F	Vapor Pressure: Unknown
Vapor Density (AIR = 1): Unknown	Solubility in Water: Forms an emulsion
pH: 8.0-9.0	Specific Gravity (H ₂ O=1): 0.98 (Concentrate)
Evaporation Rate (but. ace.=1): <1(Concentrate)	Percent Solid by Weight: 2-4
Physical State: Liquid	
Appearance & Odor: Creamy white, lemon fragrance	

SECTION IV: FIRE & EXPLOSIVE HAZARD DATA

Flash Point: Propellant <0°F	Method Used: ASTM-D3065
Flammable Limits: Not Established	Flame Extension: 0"
Extinguishing Media: Water fog	
Special Fire Fighting Procedures: Use equipment or shielding required to protect personnel against bursting, rupturing or venting containers.	
Unusual Fire & Explosive Hazards: N/A, At elevated temperatures (54°F/130°F) containers may vent, rupture or burst.	

SECTION V: HEALTH HAZARD DATA

Threshold Limit Value: Not established	Primary Routes of Entry: Skin Contact
Effects of Overexposure- May cause eye irritation; avoid contact with eyes. Conditions to Avoid:	
Conditions Aggravated by Use: None known	

Emergency & First Aid Procedures:

Eyes: In case of contact; immediately flush with water for at least 15 minutes. Remove contact lenses. If irritation persists; seek medical attention.

SECTION VI: REACTIVITY DATA

Stability: Stable	Incompatible Materials: None known
Hazardous Decomposition Products: None	Hazardous Polymerization: Will Not Occur

SECTION VII: SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled: Flush with water into sanitary sewer system. Largest container is one (1) pound aerosol can.
Waste Disposal Method: Do not incinerate or puncture aerosol container. Dispose of in accordance with state or local regulations.

SECTION VIII: SPECIAL PROTECTION INFORMATION

Respiratory Protection: None required
Ventilation: Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.
Protective Gloves(Specify Type): Not required
Eye Protection(Specify Type): Not required
Other Protective Equipment: None

SECTION IX: SPECIAL PRECAUTIONS

Precautions; Handling & Storing: Contents under pressure. Do not use near fire; sparks or flame. Do not store where temperatures could exceed 120°F.
Other Precautions: None

© SCC 09/21/99 Name: Ronald T. Cook Title: Manager, Regulatory Affairs
CITRO SHIELD FURNITURE POLISH Effective Date: 09/21/99 Supercedes: 02/06/98
(AEROSOL)
Ref: 29 CFR 1910.1200 (OSHA) Changes: Address and Format

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Material Safety Data Sheet

according to ANSI Z400.1- 2004 and 29 CFR 1910.1226



FAVOR® HIGH SHINE LEMON FURNITURE POLISH

Version 2.0

Print Date 04/15/2011

Revision Date 02/02/2011

MSDS Number 350000003608

SITE_FORM Number

30000000000000002948.001

1. PRODUCT AND COMPANY IDENTIFICATION

Product information

Trade name : FAVOR® HIGH SHINE LEMON FURNITURE POLISH

Use of the Substance/Mixture : Furniture Polish/Cleaner

Company : S.C. Johnson & Son, Inc.
1525 Howe Street
Racine WI 53403-2236

Emergency telephone number : 24 Hour Transport & Medical Emergency Phone (866) 231-5406
24 Hour International Emergency Phone (952) 852-4647

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance / Odor : white / aerosol / pleasant

Immediate Concerns

: Caution
Keep away from heat, sparks and flame.
Contents under pressure.
Do not puncture or incinerate.
Do not store at temperatures above 120 Deg. F (50 Deg C), as container may burst.

Potential Health Effects

Exposure routes : Eye, Skin, Inhalation, Ingestion.

Eyes : May irritate eyes.

Skin : None known.

Inhalation : Excessive exposures may affect human health, as follows:
Inhalation may cause central nervous system effects.

Ingestion : Aspiration hazard if swallowed - can enter lungs and cause damage.

Aggravated Medical Condition : None known.

Material Safety Data Sheet

according to ANSI Z400.1- 2004 and 29 CFR 1910.1226



FAVOR® HIGH SHINE LEMON FURNITURE POLISH

Version 2.0

Print Date 04/15/2011

Revision Date 02/02/2011

MSDS Number 350000003608
SITE_FORM Number
30000000000000002948.001

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous chemicals present at or above reportable levels as defined by OSHA 29 CFR 1910.1200 or the Canadian Controlled Products Regulations are listed in this table:

Chemical Name	CAS-No.	Weight percent
Naphtha, petroleum, light alkylate	64741-66-8	5.00 - 10.00
Butane	106-97-8	1.00 - 5.00
Propane	74-98-6	1.00 - 5.00
Isobutane	75-28-5	1.00 - 5.00
Distillates (petroleum), hydrotreated light	64742-47-8	1.00 - 5.00

For additional information on product ingredients, see www.whatsinsidescjohnson.com.

4. FIRST AID MEASURES

- Eye contact : Rinse with plenty of water. Get medical attention if irritation develops and persists.
- Skin contact : Rinse with plenty of water.
- Inhalation : Remove to fresh air. If breathing is affected, get medical attention.
- Ingestion : If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Specific hazards during fire fighting : Aerosol Product - Containers may rocket or explode in heat of fire. Container may melt and leak in heat of fire.
- Further information : Fight fire from maximum distance or protected area. Cool and use caution when approaching or handling fire-exposed containers. Wear full protective clothing and positive pressure self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes.

1. Product and Company Identification

Product Name	Sani-Cloth Plus	MSDS No. MSDS0002
CAS #	Mixture	
Product use	Germicidal Cleaner	
Manufacturer	Nice-Pak Products, Inc. or PDI, The Healthcare Div. of Nice-Pak Products, Inc. Two Nice-Pak Park Orangeburg, NY 10962-1376 Toronto, ON M9L 1V8 Canada Flint, United Kingdom Phone (USA) 1-845-365-1700 (M-F 8am - 5pm) Phone (CANADA) 1-800-263-7067 Phone (United Kingdom) +44 (0) 1352-736700	

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/ 2
Flammability	0
Physical Hazard	0
Personal Protection	B



2. Hazards Identification

Emergency overview	CAUTION Hazards to humans and domestic animals. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.
Potential short term health effects	
Routes of exposure	Eye, Skin contact, Skin absorption, Inhalation.
Eyes	Moderately irritating to the eyes.
Skin	Overexposures may cause irritation.
NIOSH - Pocket Guide - Skin Notations	
Ethanol, 2-butoxy-	111-76-2 Potential for dermal absorption
Inhalation	Excessive inhalation of this material causes headache, dizziness, nausea and incoordination.
Ingestion	Not a normal route of exposure. May cause stomach distress, nausea or vomiting.
Target organs	Blood. Eyes. Respiratory system. Skin.
Chronic effects	This product may be harmful if it is absorbed through the skin. Prolonged or repeated exposure can cause drying, defatting and dermatitis.
Signs and symptoms	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
2-Propanol	67-63-0	10 - 20
Ethanol, 2-butoxy-	111-76-2	1 - 4
Benzyl-C12-18-alkyldimethyl ammonium chlorides	68391-01-5	0.1 - 1
Quaternary ammonium compounds, C12-18-alkyl [(ethylphenyl) methyl] dimethyl, chlorides	68956-79-6	0.1 - 1

Composition comments Active ingredients are listed above.

4. First Aid Measures

First aid procedures

Eye contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Skin contact	If irritation develops, obtain medical attention.
Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Ingestion	Do not induce vomiting. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.
Notes to physician	None known.
General advice	Wear suitable protective clothing. If you feel unwell, seek medical advice (show the label where possible).

5. Fire Fighting Measures

Flammable properties	Not flammable by OSHA criteria.
Extinguishing media	
Suitable extinguishing media	Alcohol foam. Water spray or fog.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of carbon.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Wear appropriate protective equipment and clothing during clean-up.
Methods for containment	Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Remove sources of ignition. Pick up and discard towel.

7. Handling and Storage

Handling	Use according to package label instructions.
Storage	Keep out of reach of children. Keep away from heat, open flames or other sources of ignition. Store in a closed container away from incompatible materials.

MATERIAL SAFETY DATA SHEET
Organic Glass & Window Cleaner

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Product Name: Organic Glass & Window Cleaner
Effective Date: December 1, 2007
Manufacturer: Greenology Products, Inc.
8305 Falls of Neuse Rd., Suite 206
Raleigh, NC 27615
Emergency Phone Number: Transportation Emergency (Chemtel 24 hours): 1-800-255-3924
International Emergency (Chemtel 24 hours): +01-813-248-0585
MSDS and Product Information (8am-5pm EST): 877-473-3650

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

		CAS #	EXPOSURE LIMITS
PART A:	HAZARDOUS INGREDIENTS: None	N/A	N/A
PART B:	OTHER INGREDIENTS: A proprietary mixture of fruit acids, natural proteins and water	N/A	N/A

SECTION 3 – HAZARDOUS IDENTIFICATION

EYE: May cause slight irritation.
SKIN: Prolonged exposure may cause slight irritation.
INGESTION: Swallowing large quantities may cause irritation of the digestive tract.
INHALATION: No adverse effects anticipated during proper industrial handling.
CARCINOGENICITY: None of the ingredients in this product are listed as a carcinogen by NTP, IARC, or OSHA.

SECTION 4 – FIRST AID MEASURES

EYE: Flush eyes with water for at least 15 minutes. If irritation persists, seek medical attention.
SKIN: Wash with large quantities of water. If irritation persists, seek medical attention. If clothing is contaminated, remove and wash before reuse.
INHALATION: If breathing difficulties are noticed, remove to fresh air and seek medical attention.
INGESTION: If swallowed, do not induce vomiting. Give one or two glasses of water to drink and seek medical attention.



Material Safety Data Sheet

E

1. Chemical Product and Company Identification

DESCRIPTION: ELMER'S WASHABLE SCHOOL GLUE STICK
PRODUCT TYPE: SYNTHETIC POLYMER MIXTURE
APPLICATION: FOR PRODUCT CODES SEE SECTION 16

• Manufacturer/Supplier Information

MSDS Prepared by:
Elmer's Products, Inc.
460 Polaris Parkway
Westerville, OH 43082
For additional health, safety or regulatory information, call 1-888-435-6377.
Call 1-800-848-9400 to place an order or request additional MSDSs.

Emergency Phone Number
Poison Control Center
1-888-516-2502

2. Composition, Information on Ingredients

No hazardous ingredients known to company.

3. Hazards Identification

3.1 Emergency Overview

Appearance Purple solid
Odor Slight bland
CAUTION!
Not a significant fire hazard.
May cause irritation of nose, throat and lungs if allowed to become airborne.
May cause eye irritation

- **HMIS Rating**

HEALTH = 1 (slight)
FLAMMABILITY = 0 (minimal)
REACTIVITY = 0 (minimal)

3.2 Potential Health Effects

- **Immediate Hazards**

INGESTION: Not expected to be harmful under normal conditions of use.
INHALATION: Not expected to be harmful under normal conditions of use. However, if allowed to become airborne, may cause irritation of nose, throat and lungs.
SKIN: May cause irritation on prolonged or repeated contact.
EYES: May cause irritation on prolonged or repeated contact.

- **Delayed Hazards**

None of the components present in this product at concentrations equal to or greater than 0.1% have been listed by NTP, classified by IARC, nor regulated by OSHA as a carcinogen.

4. First Aid Measures

INGESTION: If accidentally swallowed, dilute by drinking large quantities of water. Immediately contact poison control center or hospital emergency room for any other additional treatment directions.
INHALATION: Remove to fresh air.
SKIN: In case of irritation, flush with water.
EYES: Immediately flush eyes with plenty of water. Call a physician if irritation persists.

5. Fire Fighting Measures

Autoignition Temperature Not available
Upper/Lower Flammable Limits Not applicable
Up/Lower Explosive Limits, % by Vol Not applicable
Flash Point Not applicable
Will not burn unless water has evaporated. Dried material may burn.



Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M(TM) Super 77 Classic Spray Adhesive

MANUFACTURER: 3M

DIVISION: Industrial Adhesives and Tapes Division

ADDRESS: 3M Center, St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 07/12/13

Supersedes Date: 11/19/12

Document Group: 11-4257-9

Product Use:

Intended Use: Industrial Aerosol Adhesive

Limitations on Use: Sale and use severely restricted due to high VOC in CT, DE, ME, MD, NH, NJ, NY, PA, RI, VA, DC, in CA per CARB

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
N.J.T.S. Reg No. 04499600-5776P	Trade Secret	15 - 40
2-Methylpentane	107-83-5	0 - 15
3-Methylpentane	96-14-0	0 - 15
2,3-Dimethylbutane	79-29-8	0 - 15
Neohexane	75-83-2	0 - 15
Pentane	109-66-0	1 - 5
Cyclohexane	110-82-7	10 - 30
Isobutane	75-28-5	7 - 13
Propane	74-98-6	7 - 13
Dimethyl ether	115-10-6	7 - 13
Hexane	110-54-3	< 1.5

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Odor, Color, Grade: light cream colored, sweet/fruity odor.

General Physical Form: Gas

Immediate health, physical, and environmental hazards: Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains flammable material under pressure. May cause target organ effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact:

Prolonged or repeated exposure may cause:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching.

Inhalation:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Intentional concentration and inhalation may be harmful or fatal.

Single exposure, above recommended guidelines, may cause:

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

May be absorbed following inhalation and cause target organ effects.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure may cause:

Peripheral Neuropathy: Signs/symptoms may include tingling or numbness of the extremities, incoordination, weakness of the hands and feet, tremors and muscle atrophy.

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

3.3 POTENTIAL ENVIRONMENTAL EFFECTS

HALOGEN ANALYSIS: The dry ingredients of 3M Super 77 Spray Adhesive were subjected to combustion in a Parr oxygen bomb. The decomposition products were analyzed by Ion Chromatographic analysis for halogen and sulfur content. Chlorine 0.05%; Fluorine <0.001%, Bromine <0.001%; Sulfur <0.035%.

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are

followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Wash affected area with soap and water. If signs/symptoms develop, get medical attention.

Inhalation: Remove person to fresh air. Get immediate medical attention.

If Swallowed: Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

4.2 NOTE TO PHYSICIANS

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	<i>No Data Available</i>
Flash Point	-42.00 °F [<i>Test Method:</i> Tagliabue Closed Cup]
Flammable Limits(LEL)	Approximately 1.5 % volume
Flammable Limits(UEL)	Approximately 8.6 % volume
OSHA Flammability Classification:	Class IA Flammable Liquid

5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains gas under pressure. Aerosol container contains flammable material under pressure.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available.

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard.

6.2. Environmental precautions

Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

Clean-up methods



Material Safety Data Sheet

F

1. Chemical Product and Company Identification

DESCRIPTION: ELMER'S WASHABLE SCHOOL GLUE
PRODUCT TYPE: PVAC BASED ADHESIVE.
APPLICATION: FOR PRODUCT CODES SEE SECTION 16

• Manufacturer/Supplier Information

MSDS Prepared by:
Elmer's Products, Inc.
1 Easton Oval
Columbus, OH 43219
For additional health, safety or regulatory information, call 1-888-435-6377
Call 1-800-848-9400 to place an order or request additional MSDSs.

Emergency Phone Number
Poison Control Center
1-888-516-2502

2. Composition, Information on Ingredients

No hazardous ingredients known to company.

3. Hazards Identification

3.1 Emergency Overview

Appearance: Milky white liquid
Odor: Mild acetic aroma
Not an immediate health hazard.

• HMIS Rating

HEALTH = 0 (minimal)
FLAMMABILITY = 0 (minimal)
REACTIVITY = 0 (minimal)

3.2 Potential Health Effects

- **Immediate Hazards**

INGESTION: No hazards known to company.
INHALATION: No hazards known to company.
SKIN: No hazards known to company.
EYES: No hazards known to company.

- **Delayed Hazards**

None of the components present in this product at concentrations equal to or greater than 0.1% have been listed by NTP, classified by IARC, nor regulated by OSHA as a carcinogen.

4. First Aid Measures

INGESTION: If accidentally swallowed, dilute by drinking large quantities of water. Immediately contact poison control center or hospital emergency room for any other additional treatment directions.
EYES: Immediately flush eyes with plenty of water. Call a physician if irritation persists.

5. Fire Fighting Measures

Autoignition Temperature Not available
Upper/Lower Flammable Limits Not applicable
Up/Lower Explosive Limits, % by Vol Not applicable
Flash Point Not applicable
Will not burn unless water has evaporated. Dried material may burn.
In case of fire, water should be used to keep fire-exposed containers cool.

6. Accidental Release Measures

Soak up with absorbent material and remove to a chemical disposal area. Prevent entry into natural bodies of water.



MATERIAL SAFETY DATA SHEET

1. COMPANY AND PRODUCT IDENTIFICATION

DUNCAN ENTERPRISES
5673 East Shields Avenue
Fresno, CA 93727
559-291-4444
559-291-9444 (Fax)

EMERGENCY TELEPHONE NUMBERS

Health Emergency: 559-291-4444 7:00 am – 3:30 pm
Pacific Standard Time
Spill and Off-Hour
Health Emergencies: 800-424-9300 U.S. and Canada
703-527-3887 Outside U.S. and
Canada (Collect)

Product Name: ALEENE'S ORIGINAL TACKY GLUE
Synonym Name(s): Water-Based Adhesive

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Family: Water based polymer emulsion
Component **CAS Number** **Concentration %**
None Hazardous

3. HAZARDS IDENTIFICATION

Emergency Overview Not considered as hazardous
Eye Contact: Slight / mild irritant
Skin Contact: Repeated or prolonged skin contact may result in mild irritation
Inhalation: Vapor may be an irritant to respiratory tract
Ingestion: Ingestion may cause irritation of the gastrointestinal tract

4. FIRST AID MEASURES

Eye Contact: Irrigate with eyewash solution or clean water until pain is relieved. Obtain medical attention.
Skin Contact: Wash skin with soap and water. If symptoms develop, obtain medical attention.
Inhalation: Remove to fresh air. Get medical attention if irritation persists.
Ingestion: Treat symptomatically and supportively. Get medical attention. DO NOT Attempt to give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Autoignition Temperature: Not Available
Flash Point: > 212° F
Extinguisher Media: Water spray or fog, CO₂, Dry Chemical, Foam
Special Firefighting Procedures: Fire fighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.
Fire & Explosion Hazards: This is a water-based product and presents no particular fire or explosion hazard. Dry polymer film will burn. Product contains low level of organic volatiles which may be emitted at elevated temperatures.
Hazardous Combustion Products: Carbon monoxide, carbon dioxide, unknown hydrocarbons
Upper Explosive Limit (%): Not Applicable
Lower Explosive Limit (%): Not Applicable
NFPA Flammability Hazard Class: 0 = Insignificant

MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT & COMPANY IDENTIFICATION

Product Name: Goo Gone – 3 oz.
Product Code(S): 1647, 1649, 1650
Date: 12-12-12
Distributed By: THE HOMAX GROUP INC.
1835 Barkley Blvd, Suite 101.
Bellingham, WA, 98226
Business Phone: 1-800-729-9029
Transportation Emergencies: CALL CHEMTREC AT 1-800-424-9300

SECTION 2- HAZARD IDENTIFICATION

POTENTIAL HEALTH EFFECTS:

ROUTES OF EXPOSURE: EYE CONTACT, SKIN CONTACT, INHALATION, INGESTION.

EYE CONTACT: CAUSES EYE IRRITATION. PROLONGED OR REPEATED CONTACT MAY CAUSE SEVERE EYE IRRITATION

SKIN CONTACT: CAUSES SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY CAUSE DERMATITIS AND DEFATTING OF SKIN. SKIN ABSORPTION MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION, LIVER DAMAGE, AND KIDNEY DAMAGE.

INGESTION: INGESTION MAY CAUSE VOMITING, CENTRAL NERVOUS SYSTEM DEPRESSION, AND LUNG INFLAMMATION AND DAMAGE DUE TO ASPIRATION OF MATERIAL INTO LUNGS. HARMFUL OR FATAL IF ASPIRATED INTO LUNGS.

INHALATION: MAY CAUSE RESPIRATORY TRACT IRRITATION, HEADACHE, NAUSEA, DROWSINESS, CENTRAL NERVOUS SYSTEM DEPRESSION, CONVULSIONS AND LOSS OF CONSCIOUSNESS.

CHRONIC EFFECT: SEE SECTION 11 OF THIS MSDS

=====

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL	CAS NUMBER	WEIGHT %
Hydrotreated light distillates	64742-47-8	90% to 95%
d-Limonene	5989-27-5	1% to 5%
Tripropyleneglycol methyl ether	25498-49-1	1% to 5%

*The ingredients in the balance of this product do not contribute significant hazards beyond those described in this document. All pertinent health, safety and environmental information has been presented, per the requirements of the US Federal OSHA Hazard Communication Standard (29CFR 1910.1200).

SECTION 4 - FIRST AID MEASURES:

EYE CONTACT: IMMEDIATELY FLUSH WITH LARGE QUANTITIES OF WATER FOR 15 MINUTES. HOLD EYES OPEN. SEEK MEDICAL ATTENTION IF IRRITATION PERSISTS.

SKIN CONTACT: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES. GET MEDICAL ATTENTION IF IRRITATION PERSISTS. REMOVE CONTAMINATED CLOTHING AND LAUNDRER BEFORE RESUSE.

MATERIAL SAFETY DATA SHEET

INGESTION: IF SWALLOWED, **DO NOT INDUCE VOMITING.** OBTAIN MEDICAL TREATMENT IMMEDIATELY. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

INHALATION: MOVE PERSON TO FRESH AIR. IF BREATHING DIFFICULTY PERSISTS, GET MEDICAL ATTENTION. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: 186 F

LOWER EXPLOSION LIMIT: DATA NOT AVAILABLE

UPPER EXPLOSION LIMIT: DATA NOT AVAILABLE

EXTINGUISHING MEDIA: DRY CHEMICAL, FOAM OR CARBON DIOXIDE. DO NOT USE WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS: VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL LONG DISTANCES TO A SOURCE OF IGNITION AND FLASH BACK. VAPORS CAN FORM EXPLOSIVE MIXTURES IN AIR AT ELEVATED TEMPERATURES. CLOSED CONTAINERS MAY BURST IF EXPOSED TO EXTREME HEAT OR FIRE.

FIRE FIGHTING INSTRUCTIONS: FIREFIGHTERS SHOULD USE FULL PROTECTIVE CLOTHING, EYE PROTECTION, AND SELF-CONTAINED BREATHING APPARATUS. WATER MAY BE USED TO COOL AND PROTECT EXPOSED CONTAINERS.

HAZARDOUS COMBUSTION PRODUCTS: TOXIC GASES, CARBON MONOXIDE, AND CARBON DIOXIDE.

SECTION 6- ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: EVACUATE UNNECESSARY PERSONS AND KEEP FROM ENTERING SPILL AREA.

SAFEGUARDS: PREVENT SPILL FROM ENTERING DRAINS AND CONTAMINATING SOIL, SURFACE WATER OR GROUND WATER. VENTILATE AREA OF LEAK OR SPILL.

SPILL CLEAN UP: SPILLS MAY BE COLLECTED WITH ABSORBENT MATERIALS. PLACE COLLECTED MATERIAL IN PROPER CONTAINER.

SECTION 7- HANDLING AND STORAGE

HANDLING PRECAUTIONS: AVOID CONTACT WITH EYES AND SKIN. KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAME. DO NOT USE IN OR ON ELECTRICAL EQUIPMENT DUE TO POSSIBILITY OF SHOCK HAZARD. WASH HANDS IMMEDIATELY AFTER HANDLING. KEEP OUT OF REACH OF CHILDREN

STORAGE: STORE IN ORIGINAL CONTAINER IN A COOL DRY PLACE. STORE IN WELL VENTILATED AREA. KEEP CONTAINER TIGHTLY CLOSED.

SECTION 8- EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS

REPORTABLE COMPONENTS	OSHA	ACGIH	NIOSH
Hydrotreated light distillates	PEL (5mg/m ³) STEL (10mg/m ³)	N/A	N/A
d-Limonene	None Established	None Established	None Established
Tripropyleneglycol methyl ether	None Established	None Established	None Established

PERSONAL PROTECTION

EYE PROTECTION: NO SPECIAL REQUIREMENT FOR NORMAL USE.

SKIN PROTECTION: FOR PROLONGED OR REPEATED CONTACT, USE PROTECTIVE GLOVES.

MATERIAL SAFETY DATA SHEET

No. 1728

CORPORATE ADDRESS: LORNAMEAD, INC.
175 COOPER AVENUE
TONAWANDA, NY 14150

PHONE: (716) 874-7190 MONDAY THRU FRIDAY (8:00 a.m. - 4:30 p.m. EST)
EMERGENCY: CONTACT POISON CONTROL CENTER

SECTION I. MATERIAL IDENTIFICATION

A. MATERIAL TYPE: Aqua Net Hairspray Super Hold

SECTION II. INGREDIENTS

Water (Aqua), Dimethyl Ether, SD Alcohol 40-B (Alcohol Denat.) VA/Crotonates/Vinyl Neodecanoate Copolymer, Acrylates Copolymer, Aminomethyl Propanol, Sodium Benzoate, Cyclohexylamine, Triethyl Citrate, Cyclopentasiloxane, Fragrance (Parfum), Sodium PCA

SECTION III. PHYSICAL DATA (APPEARANCE)

- A. PRESSURIZED CONTAINER: Yes
- B. TYPE CONTAINER(S): Metal Can
- C. DESCRIPTION: Fragranced, Aerosol Spray

SECTION IV. FIRE AND EXPLOSION DATA

- A. HAZARD CLASSIFICATION: Flammable
- B. FLASH POINT: Not Applicable
- C. CONTENTS UNDER PRESSURE: Yes
- D. EXTINGUISHING MEDIA: Water, ABC All Purpose Extinguisher, CO2
- E. SPECIAL FIRE FIGHTING PROCEDURES: Since all pressurized aerosol cans may explode when exposed to excessive heat, protect from excessive heat with water spray.
- F. EXPLOSIVE: Yes
- G. NFPA CLASSIFICATION: Aerosol Level 1

SECTION V. REACTIVITY DATA

- A. STABLE: Yes
- B. HAZARDOUS DECOMPOSITION PRODUCTS: None
- C. INCOMPATIBLE WITH: None
- D. SPECIAL CONDITIONS TO AVOID: Open Flames, High Temperatures, Sunlight, Impact
- E. CORROSIVE: No

SECTION VI. HEALTH HAZARDS INFORMATION

- A. ACCIDENTAL INGESTIONS: Call physician or Poison Control Center immediately.
- B. EFFECTS OF EXPOSURE: Rarely presents a problem when used according to directions. This product is safe for its intended use. Like all consumer products a very small number of individuals may have reactions such as redness, rash and/or swelling.
- C. FIRST AID: If reaction to product does not subside quickly (in a few minutes) consult physician or emergency room immediately.
- See Instructions Accompanying Product.
- EYE CONTACT: Flush with copious amounts of water immediately. If reaction persists, consult physician or eye doctor or emergency room immediately.
- SKIN CONTACT: Rarely presents a problem when used according to directions. This product is safe for its intended use. In the unlikely event a skin reaction such as rashes or swelling should occur, flush area with water and consult a dermatologist or other physician.
- RESPIRATORY: Reaction not expected. If unusual symptoms develop discontinue exposure and consult physician or emergency room immediately.
- D. OSHA PEL: N/A Not Established

SECTION VII. SPILL, LEAK, AND DISPOSAL PROCEDURES

- SPILLS, LEAKS: Small Spills - Flush with water.
- Large Spills - Should be collected in suitable container.
- DISPOSAL: Disposal should be in accordance with all applicable local, state and federal regulations.

SECTION VIII. SPECIAL PROTECTION INFORMATION

See Instructions Accompanying Product

SECTION IX. PRECAUTIONS AND COMMENTS

- A. STORAGE & HANDLING INFORMATION: Store in a dry area at normal temperatures. Avoid storing at high temperature or near heat source. Avoid freezing temperatures.
- B. SPECIAL STORAGE REQUIRED: No

Material Safety Data Sheet

The logo for Vi-Jon is written in a stylized, cursive font. The letters are dark grey and have a slightly irregular, hand-drawn appearance. A small registered trademark symbol (®) is located to the upper right of the 'n'.

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Vi-Jon Incorporated
8515 Page Avenue
Saint Louis, MO 63114

Phone: 314-427-1000
In Case of Spill Emergency Contact:
Chemtrec: 1-800-424-9300

Product Name: Germ-X Hand Sanitizer

Product Code: 028

Product Use: Hand Sanitizer

Issue Date: 04/23/2008

Supersedes Date: July 2007

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Keep out of reach of children.

Appearance/Odor: Clear gel with alcohol/citrus odor.

WARNING:

Flammable (ethyl alcohol and isopropyl alcohol)

Target (ethyl alcohol and isopropyl alcohol) respiratory system, skin, eyes, CNS, liver, blood and reproductive system.

Potential Health Effects: See Section 11 for more information.

Symptoms of Exposure:

Inhalation: May cause irritation of the respiratory tract.

Ingestion: May cause nausea, vomiting and diarrhea.

Eyes: May cause irritation to the eyes.

Skin: None expected.

This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

This material contains components that are considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Environmental Effects: See Section 12 for more information.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS#	% by Wt.
Ethyl Alcohol	64-17-5	59%
Isopropyl Alcohol	67-64-0	3%

Section 4: FIRST AID MEASURES

Emergency first aid procedures by route of exposure:

- Inhalation:** If symptoms are experienced, remove source of contamination or move victim to fresh air. If affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- Ingestion:** Do not induce vomiting. If the material is swallowed, get medical attention or advice.
- Skin:** If irritation is experienced, flush with water. If irritation persists, get medical attention.
- Eyes:** Immediately flush eyes with water for at least 15 minutes while holding eyelids open. If symptoms persist, get medical attention.
-

Section 5: FIRE FIGHTING MEASURES

- Flash Point:** 71°F (21.6°C)
Method Used: ASTM D-93
Lower Flammable Limit: 3.3 (Volume % in air)
Upper Flammable Limit: 19.0 (Volume % in air)
Auto Ignition: (Ethyl Alcohol) 363°C
Flammability Classification: Flammable Liquid IB

Extinguishing Media: Use methods appropriate for the surrounding fire. Consider water spray or fog, carbon dioxide, dry chemical powder, or alcohol resistant foam.

Products of Combustion: Upon decomposition this product may emit carbon dioxide, carbon monoxide and/or low molecular weight hydrocarbons.

Fire Fighting Equipment/Instructions: Wear protective clothing and equipment suitable for the surrounding fire, including helmet, facemask, and self contained breathing apparatus.

NFPA Rating: Health:2 Fire: 3 Reactivity:0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: For large spills wear gloves, safety glasses and when levels exceed OSHA PEL use appropriate NIOSH approved respiratory protection. Keep unnecessary personnel away. Eliminate all sources of ignition or flammables that may come into contact with a spill of this material.

Environmental Precautions: Prevent discharge to open waters.

Method for Containment: Absorb spilled liquid in suitable non-flammable inert material such as clay, vermiculite or diatomaceous earth.

Methods for Clean-Up: Ventilate area of leak or spill. Use spark-proof tools to sweep or scrape up and containerize in approved chemical waste container. Wash spill area with water.

HI-FLOAT Co., Inc.
13025 Middletown Industrial Blvd
Louisville, KY 40223
(502)244-0984

Emergency Medical Info:
(502)244-0984/(502)244-6088
Rocky Mountain Poison Control:
(303) 629-1123

Date: 3/1/05

IDENTIFICATION

Name: HI-FLOAT Balloon Treatment
SUPER HI-FLOAT Balloon Treatment
ULTRA HI-FLOAT Balloon Treatment

Major Components: water, polyvinyl, alcohol, dextrose monohydrate
CAS No.: 25213-24-5 (polyvinyl alcohol)
50-99-7 (dextrose monohydrate)

HAZARDOUS COMPONENTS

Materials: None Approximate %: N/A

PHYSICAL DATA:

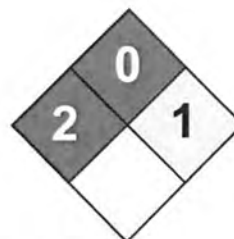
Boiling Point, 760 mm Hg.: 212F (100C)	Form: Viscous Liquid
Specific Gravity: 1.06	Odor: No chemical odor
Vapor Density: Same as water	Melting Point: N/A
% Volatiles: 70-80	Vapor Pressure: Same as water
pH Information: 5-6	Solubility in Water: Infinite
Color: clear	

FIRE AND EXPLOSION DATA

Flash Point: N/A Method: N/A Autoignition Temp.: N/A
Flammability Limits in Air - Upper: N/A Lower: N/A
Fire and Explosion Hazards: None
Extinguishing Media: Any
Special Fire Fighting Instructions: None

HAZARDOUS REACTIVITY

Instability: Stable
Incompatibility: Strong oxidizing agents
Decomposition: None
Polymerization: Will not occur



Health	3
Fire	0
Reactivity	1
Personal Protection	

Material Safety Data Sheet

Hydrogen Peroxide 30% MSDS

Section 1: Chemical Product and Company Identification

Product Name: Hydrogen Peroxide 30%

Catalog Codes: SLH1552

CAS#: Mixture.

RTECS: Not applicable.

TSCA: TSCA 8(b) inventory: Water; Hydrogen Peroxide

CI#: Not applicable.

Synonym: Hydrogen Peroxide 30%

Chemical Name: Not applicable.

Chemical Formula: Not applicable.

Contact Information:

Sciencelab.com, Inc.

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:

1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Water	7732-18-5	70
Hydrogen Peroxide	7722-84-1	30

Toxicological Data on Ingredients: Hydrogen Peroxide: ORAL (LD50): Acute: 2000 mg/kg [Mouse]. DERMAL (LD50): Acute: 4060 mg/kg [Rat]. 2000 mg/kg [pig]. VAPOR (LC50): Acute: 2000 mg/m 4 hours [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects:

Very hazardous in case of skin contact (irritant), of eye contact (irritant). Hazardous in case of skin contact (corrosive), of eye contact (corrosive), of ingestion. Slightly hazardous in case of inhalation (lung sensitizer). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects:

MUTAGENIC EFFECTS: Not available. **MUTAGENIC EFFECTS:** Not available. **TERATOGENIC EFFECTS:** Not available. **DEVELOPMENTAL TOXICITY:** Not available. The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: combustible materials

Explosion Hazards in Presence of Various Substances: Slightly explosive in presence of open flames and sparks, of heat, of organic materials, of metals, of acids.

Fire Fighting Media and Instructions:

Fire: Small fires: Use water. Do not use dry chemicals or foams. CO₂, or Halon may provide limited control. Large fires: Flood fire area with water from a distance. Move containers from fire area if you can do it without risk. Do not move cargo or vehicle if cargo has been exposed to heat. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. / Hydrogen peroxide, aqueous solution, with not less than 8% but less than 20% Hydrogen peroxide; Hydrogen peroxide, aqueous solution, with not less than 20% but not more than 60% Hydrogen peroxide (stabilized as necessary) [QC Reviewed] [U.S. Department of Transportation. 2000 Emergency Response Guidebook. RSPA P 5800.8 Edition. Washington, D.C: U.S. Government Printing Office, 2000,p. G-140]

Special Remarks on Fire Hazards:

Most cellulose (wood, cotton) materials contain enough catalyst to cause spontaneous ignition with 90% Hydrogen Peroxide. Hydrogen Peroxide is a strong oxidizer. It is not flammable itself, but it can cause spontaneous combustion of flammable materials and continued support of the combustion because it liberates oxygen as it decomposes. Hydrogen peroxide mixed with magnesium and a trace of magnesium dioxide will ignite immediately.

Special Remarks on Explosion Hazards:

1. Product and Company Identification

Product Name Lysol Brand (Kills 99.9% of Viruses & Bacteria) Concentrate Disinfectant
UPC CODES Refer to section 16
CAS # Mixture
Product use Disinfectant
Distributed by Reckitt Benckiser
 Morris Corporate Center IV
 399 Interpace Parkway
 P.O. Box 225
 Parsippany, NJ 07054-0225
 In Case of Emergency: 1-800-228-4722
 Transportation Emergencies: 24 Hour Number:
 North America: CHEMTREC: 1-800-424-9300
 Outside North America: 1-703-527-3887

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/ 2
Flammability	2
Physical Hazard	0
Personal Protection	B



2. Hazards Identification

Emergency overview

This product is regulated by the US EPA as a disinfectant.

PRECAUTIONARY STATEMENTS: Hazards to humans and domestic animals.

DANGER

CORROSIVE. HARMFUL IF SWALLOWED. Causes irreversible eye and skin burns. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Wear protective clothing and rubber gloves. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Avoid prolonged breathing of vapor or mist.

KEEP OUT OF REACH OF CHILDREN.

Potential short term health effects

Routes of exposure

Eyes

Skin

Inhalation

Ingestion

Target organs

Chronic effects

Signs and symptoms

Eye, Skin contact, Inhalation, Ingestion.

May cause irreversible eye damage.

Causes burns.

Not expected to be a skin sensitizer.

None expected during normal conditions of use.

Do not breathe vapour or spray mist.

Harmful if swallowed.

Blood. Eyes. Liver. Respiratory system. Skin.

The finished product is not expected to have chronic health effects.

The product causes burns of eyes, skin and mucous membranes.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
O-Benzyl-p-chlorophenol	120-32-1	2.5 - 10
Potassium hydroxide	1310-58-3	2.5 - 10
Coconut oil	8001-31-8	10 - 20
Ethanol	64-17-5	1 - 2.5
Isopropanol	67-63-0	1 - 2.5
Xylenol	1300-71-6	1 - 2.5

4. First Aid Measures

First aid procedures

Eye contact Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin contact Remove contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Ingestion Call a doctor or get medical attention immediately. Do not induce vomiting or give anything by mouth to an unconscious person. Drink promptly a large quantity of milk, egg whites, gelatin solution or if these are not available, drink 1 or 2 glasses of water to dilute product. Avoid alcohol. Get medical attention.

Notes to physician

Probable mucosal damage may contraindicate the use of gastric lavage.

General advice

Keep away from sources of ignition. No smoking. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. Fire Fighting Measures

Flammable properties Combustible by OSHA criteria.

Extinguishing media

Suitable extinguishing media Carbon dioxide. Water spray. Dry chemical.

Unsuitable extinguishing media Not available

Protection of firefighters

Specific hazards arising from the chemical Not available

Protective equipment for firefighters Firefighters should wear full protective clothing including self contained breathing apparatus.

Hazardous combustion products May include and are not limited to: Oxides of carbon.

Explosion data

Sensitivity to mechanical impact Not available

Sensitivity to static discharge Not available

6. Accidental Release Measures

Personal precautions Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.

Methods for containment Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up Remove sources of ignition. Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.



Commercial Products Group
 CPG TN 6
 2 Procter & Gamble Plaza
 Cincinnati, OH 45202

HMIS®
 Health 1
 Flammability 0
 Reactivity 0

MATERIAL SAFETY DATA SHEET

Issue Date: 2/99

SECTION I
Emergency Telephone Number: Procter & Gamble Operator 1-513-983-1100
Identity: MR. CLEAN All-Purpose Cleaner
Ingredients/Chemical Name: Cleaning agents (nonionic and anionic surfactants), quality control agents, perfume, colorant and water.
Other: N.A.

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION												
Hazardous Ingredients as defined by OSHA, 29 CFR 1910. 1200.												
<table border="0"> <thead> <tr> <th>Chemical Name</th> <th>Common Name</th> <th>CAS No.</th> <th>ACGIH TLV</th> <th>OSHA PEL</th> <th>Other Limits Recommended</th> </tr> </thead> <tbody> <tr> <td>alcohol ethoxylates</td> <td>nonionic surfactant</td> <td></td> <td></td> <td></td> <td>see Section V - Health and Safety Data</td> </tr> </tbody> </table>	Chemical Name	Common Name	CAS No.	ACGIH TLV	OSHA PEL	Other Limits Recommended	alcohol ethoxylates	nonionic surfactant				see Section V - Health and Safety Data
Chemical Name	Common Name	CAS No.	ACGIH TLV	OSHA PEL	Other Limits Recommended							
alcohol ethoxylates	nonionic surfactant				see Section V - Health and Safety Data							
DOT Classification: Not regulated												

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS	
Boiling point: N.A.	Specific Gravity (H ₂ O=1): 1.048 g/cc
Vapor Pressure (mm Hg): N.A.	Percent Volatile by Volume (%): N.A.
Vapor Density (Air=1): N.A.	Evaporation Rate (nBuOAc=1): N.A.
Solubility in Water: Complete	Appearance and Odor: Clear yellow liquid with lemon fragrance
pH: 9.0 10.0	

SECTION IV - FLAMMABILITY AND REACTIVITY	
Flash Point (Method Used): over 200°F (cc)	Explosive Limits: LEL: N.A. UEL: N.A.
Extinguishing Media: Use CO ₂ , water, dry chemical or "alcohol" foam.	
Special Fire Fighting Procedures: Use water to keep fire exposed containers cool.	
Unusual Fire Hazards: None Known	
Stability <i>Unstable:</i> <i>Stable: X</i>	Conditions to Avoid: None Known
Incompatibility (Materials to avoid): None Known	
Hazardous Decomposition/By Products: None Known	
Hazardous <i>May Occur:</i>	Conditions to Avoid: None
Polymerization <i>Will Not Occur: X</i>	

SECTION V - HEALTH AND SAFETY DATA

Route(s) of Entry: Skin contact, eye contact, ingestion and inhalation.

Health Hazards (Acute and Chronic): Mild skin and eye irritant. May be harmful if swallowed.

Signs and Symptoms of Exposure: Instillation into the eyes may result in transient superficial effects similar to those produced by mild toilet soaps and detergents. Ingestion may result in transient nervous system effects (ataxia and muscle weakness) and/or gastrointestinal irritation with nausea, vomiting or diarrhea. This product contains alcohol ethoxylates. Large ingestions (>2ml/kg) may also cause symptoms of alcohol-like intoxications, incoordination, drowsiness, inarticulateness or ataxia. Alcohol ethoxylates may contribute to Central Nervous System symptoms.

Medical Conditions Generally Aggravated by Exposure: Use on irritated or extremely dry skin may aggravate the existing conditions.

Emergency and First Aid Procedures: *Eye Contact:* Flush thoroughly with water. *Ingestion:* Dilute with fluids and call a physician. *Skin Irritation:* Rinse exposed area and discontinue use. Remove contaminated clothing.

Other: N.A.

SECTION VI - PRECAUTIONS FOR SAFE HANDLING AND USE

Precautions to be Taken in Handling and Storing: Store in a cool, dry, well ventilated area.

Other precautions: None required

Steps to Be Taken in Case Material is Released or Spilled: Use water spray to dilute and/or wash away spills to avoid exposure and to protect persons working to stop/repair leak.

Waste Disposal Method: Do not landfill. Small (household) quantities may be disposed of via sewer. Incineration is preferred where permitted by federal, state and local regulations. Disposal is to be performed in compliance with all regulations.

SECTION VII - SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type): None required.

Ventilation *Local Exhaust:* None required *Special:* None
 Mechanical (General): Acceptable *Other:* None

Eye Protection: None required with normal use. If splash is possible use goggles. **Protective Gloves:** None required with normal use.

Other Protective Equipment: None required; in industrial setting eye wash fountain desirable.

*N.A. - Not Applicable

*N.K. - Not Known

The submission of this MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied is for use only in connection with occupational safety and health.

MATERIAL SAFETY DATA SHEET

WORKING COPY

Date Issued: 07/06/2007
MSDS No: 350000003667
Revision No: New MSDS

OUST® SURFACE DISINFECTANT & AIR SANITIZER - CITRUS SCENT

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: OUST® SURFACE DISINFECTANT & AIR SANITIZER - CITRUS SCENT
GENERAL USE: Air care

MANUFACTURER:

S.C. Johnson & Son, Inc.
1525 Howe Street
Racine WI 53403-5011

24 Hr. Medical & Transport Emergency

Phone: (866) 231-5406

24 Hr. International Medical Emergency

Phone: (952) 852-4647

CANADIAN ADDRESS:

S.C. Johnson and Son, Limited
1 Webster Street
Brantford, Ontario N3T 5R1

24 Hr. Canadian Transport Emergency:

CANUTEC (Canadian Transportation):(613) 996 - 6666

REGISTRATION INFORMATION: EPA Reg. Number 4822-548

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE/ODOR: Colorless spray mist. Fragrant odor.

IMMEDIATE CONCERNS: CAUTION: Eye irritant. Avoid contact with eyes. CONTENTS UNDER PRESSURE. Do not puncture or incinerate. Do not store at temperatures above 120 Deg. F (50 Deg. C).

POTENTIAL HEALTH EFFECTS

EYES: May cause: Moderate eye irritation.

SKIN: Prolonged or repeated contact may cause: Drying/defatting of skin.

INGESTION: May cause: Abdominal discomfort. Ingestion may cause headache, dizziness, fatigue, and central nervous system depression.

INHALATION: High concentrations may lead to central nervous system effects such as drowsiness, dizziness, headaches and/or nausea.

MEDICAL CONDITIONS AGGRAVATED: Individuals with chronic respiratory disorders such as asthma, chronic bronchitis, emphysema, etc., may be more susceptible to irritating effects.

ROUTES OF ENTRY: Eye contact. Skin contact. Inhalation. Ingestion.

3. COMPOSITION / INFORMATION ON INGREDIENTS

MATERIAL SAFETY DATA SHEET

WORKING COPY

Date Issued: 07/06/2007
MSDS No: 350000003667
Revision No: New MSDS

OUST® SURFACE DISINFECTANT & AIR SANITIZER - CITRUS SCENT

Chemical Name	Wt. %	CAS	EINECS
n-Alkyl dimethyl benzyl ammonium saccharinate	0.2	068989-01-5	
Triethylene Glycol	6	000112-27-6	203-953-2
Propane	5 - 10	000074-98-6	- -
Isobutane	10 - 20	000075-28-5	- -
Ethanol	30 - 40	000064-17-5	200-578-6
Water	30 - 40	007732-18-5	

4. FIRST AID MEASURES

EYES: Flush immediately with plenty of water for at least 15 to 20 minutes. If irritation persists, get medical attention.

SKIN: Wash contaminated area with water and soap. If irritation develops, get medical attention.

INGESTION: Do not induce vomiting! Immediately drink 1-2 glasses of water or milk. Do not administer anything by mouth to an unconscious person. Get medical attention immediately.

INHALATION: Remove to fresh air. If breathing is affected, get medical attention.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: < -7°C (20°F) (TCC) (propellant)

FLAMMABLE LIMITS:

Notes: Not Available

AUTOIGNITION TEMPERATURE: Not Available

FLAMMABLE CLASS: NFPA 30B Level 2 Aerosol.

EXTINGUISHING MEDIA: Foam. CO2. Dry chemical. Water fog.

EXPLOSION HAZARDS: Aerosol product - Containers may rocket or explode in heat of fire.

FIRE FIGHTING PROCEDURES: Fight fire from maximum distance or protected area. Cool and use caution when approaching or handling fire-exposed containers. Fire fighters should wear self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: Eliminate all ignition sources. Absorb with oil-dri or similar inert material. Sweep or scrape up and containerize. Rinse affected area thoroughly with water.

7. HANDLING AND STORAGE



MATERIAL SAFETY DATA SHEET

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Elmer's Products, Inc.
 1000 Kingsmill Parkway
 Columbus, OH 43229

Emergency Phone Number:
Poison Control Center
 1-800-228-5635 ext. 022

For additional product information, access our website at www.elmers.com or call 1-888-435-6377.
 To place an order, call 1-800-848-9400.

SUBSTANCE: ELMER'S TEMPERA PAINTS

TRADE NAMES/SYNONYMS:

E200-2 ELMER'S BLACK TEMPERA PAINT; E200-5 ELMER'S BLUE TEMPERA PAINT; E200-7 ELMER'S BROWN TEMPERA PAINT; E200-4 ELMER'S GREEN TEMPERA PAINT; E200-8 ELMER'S MAGENTA TEMPERA PAINT; E200-9 ELMER'S ORANGE TEMPERA PAINT; E200-10 ELMER'S PEACH TEMPERA PAINT; E200-3 ELMER'S RED TEMPERA PAINT; E200-11 ELMER'S TURQUOISE TEMPERA PAINT; E200-12 ELMER'S VIOLET TEMPERA PAINT; E200-1 ELMER'S WHITE TEMPERA PAINT; E200-6 ELMER'S YELLOW TEMPERA PAINT

PRODUCT USE: paint/coating

CREATION DATE: May 08 2003

REVISION DATE: Sep 18 2003

SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: NON-HAZARDOUS SUBSTANCE

CAS NUMBER: Not assigned.

PERCENTAGE: 100

SECTION 3 HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=1 FIRE=1 REACTIVITY=0

EMERGENCY OVERVIEW:



COLOR: various colors

PHYSICAL FORM: liquid

MAJOR HEALTH HAZARDS: No significant target effects reported.

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: no information on significant adverse effects

LONG TERM EXPOSURE: no information on significant adverse effects

SKIN CONTACT:

SHORT TERM EXPOSURE: no information on significant adverse effects

LONG TERM EXPOSURE: no information on significant adverse effects

EYE CONTACT:

SHORT TERM EXPOSURE: no information on significant adverse effects

LONG TERM EXPOSURE: no information on significant adverse effects

INGESTION:

SHORT TERM EXPOSURE: no information on significant adverse effects

LONG TERM EXPOSURE: no information on significant adverse effects

SECTION 4 FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

SKIN CONTACT: Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

EYE CONTACT: Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

INGESTION: If a large amount is swallowed, get medical attention.

SECTION 5 FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Slight fire hazard.

EXTINGUISHING MEDIA: carbon dioxide, regular dry chemical, regular foam, water

FIRE FIGHTING: Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

FLASH POINT: No data available.

HAZARDOUS COMBUSTION PRODUCTS:

Thermal decomposition products or combustion: oxides of carbon

SECTION 6 ACCIDENTAL RELEASE MEASURES

SECTION 1-PRODUCT IDENTIFICATION AND SUPPLIER INFORMATION

Name: Eberlock Technologies, Inc. Address: 123 Dascomb Rd. Phone #: 800-342-3755	Product Name: Advanced Peroxide Cleaner Generic Name: Peroxide Cleaner-Degreaser Chemical Family: Detergent/peroxide blend Formula: Proprietary
---	--

SECTION 2-INGREDIENT INFORMATION

CHEMICAL NAME	CAS NO.	WT. %	PEL	TWA-TLV	STEL-TLV
Water	7732-18-5	to 100			
Hydrogen Peroxide	7722-84-1	5 to 10	1 ppm	1 ppm	
Primary Alcohol Ethoxylate C9	68439-46-3	0 to 5			
Sodium Octanesulfonate	5324-84-5	0 to 5			
Proprietary Chelating Agent	N/A	0 to 5			

SECTION 3-PHYSICAL DATA

Boiling Point (°F): 212° F. **Specific Gravity:** 1.030 – 1.039
Vapor Pressure: 20mm Hg @68°F. **Vapor Density (Air=1):** >1
% Volatile: 80+ **pH:** 7.5 – 8.5
Solubility in Water: Complete **Evaporation Rate (Water=1):** >1
Physical Description: Thin clear liquid with characteristic odor
VOC Content: None

SECTION 4-FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): None
Upper Explosion Limit: N/A **Lower Explosion Limit:** N/A
Extinguishing Media: Dry chemical, CO₂ or water
Special Firefighting Procedures: Keep fire exposed containers cool with water stream.
Unusual Fire and Explosion Hazards: N/A

SECTION 5-REACTIVITY DATA

Stability: Stable **Hazardous Polymerization:** None
Hazards Decomposition Products: Not Known **Incompatibility (Materials to Avoid):** Strong Alkalies, Chlorine

SECTION 6-STORAGE AND HANDLING INFORMATION

CAUTION: Eye irritant. Skin irritant with prolonged or repeated contact. Keep out of reach of children. For use by trained personnel only. Wear protective gloves and eyewear when handling. Keep container closed during storage. For institutional and industrial use only. Avoid contact with eyes, skin and clothing. Avoid breathing of vapors or mists. Use in well-ventilated area.

SECTION 7-HEALTH HAZARDS AND FIRST AID

Effects of Overexposure:
Skin: May cause irritation with prolonged or repeated contact (dryness, redness)
Eyes: Eye irritant. May cause conjunctivitis, redness, swelling, tearing.
Inhalation: Mists may be irritating to mucous membranes in the nose, throat, and lungs.
Ingestion: Irritating to the mouth and throat. May cause headache, nausea, abdominal pain.
First Aid Procedures:
Skin: Flush with water. Seek medical attention if irritation persists.
Eyes: Flush with large quantities of water, holding eyelids open. Seek medical attention immediately.
Inhalation: Get to fresh air. Seek medical attention if irritation persists.
Ingestion: Do not induce vomiting. Drink large quantities of water. Seek medical attention immediately.

SECTION 8-SPECIAL PROTECTION INFORMATION

Respiratory Protection: Use a NIOSH/OSHA approved mask when spray mist is present and or the TLV has been exceeded.
Ventilation Requirements: No special requirements
Protective Gloves: Wear neoprene, rubber, vinyl, or nitrile gloves to prevent skin contact if prolonged skin contact is likely. Wash hands before eating, smoking or using the wash room.
Eye Protection: Safety glasses or chemical splash goggles recommended
Other Protective Equipment: None

SECTION 9-SPILL OR LEAK PROCEDURES

Steps to be taken in Case Material is Released or Spilled: Floors will become slippery. Avoid walking in product. Ventilate area well. Keep unessential personnel away. Mop up or otherwise absorb and hold disposal. Avoid discharge to open storm sewer or open waterways.
Waste Disposal Method: Any method in accordance with local, state and federal laws. Best method is to recycle or reuse for intended purpose. Consult local authorities for disposal in public sewer. Small amounts may be flushed to sanitary sewer with plenty of water. Do not dispose of into storm drain, stream, river or to ground. Rinse container thoroughly before offering for recycling.

SECTION 10-REGULATORY INFORMATION

SARA Title III - Section 311/312 -Hazard Categories:
 No - Fire Hazard
 No - Sudden Release of Pressure Hazard
 No - Reactivity Hazard
 Yes - Immediate (acute) Health Hazard
 No - Delayed (chronic) Health Hazard

Shipping Information:
 FOR CONTAINERS > 1 Gallon : Cleaning Compound Not Regulated
 FOR 1 GALLON CONTAINERS : Cleaning Compound Not Regulated
 FOR CONTAINERS < 1 GALLON : Cleaning Compound

HMIS Hazardous Materials Identification System

Health	2
Flammability	0
Reactivity	1
Personal Protection	B

FOR EMERGENCY MEDICAL OR TRANSPORT INFORMATION: CHEM-TEL, Inc. @ 800-255-3924 (24 hours, 7 days per week)
 This product contains the following toxic chemical(s) subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

CAS#	Chemical Name	Percent by Weight
	Not Applicable	

This product contains the following chemical(s) which have been established to be either a carcinogen or suspected carcinogen.

CAS#	Chemical Name	Percent by Weight
None	None	None

SECTION 11-OTHER INFORMATION

This company cannot anticipate all conditions of handling and use of this product. Therefore, this company accepts no responsibility for results obtained by the application of this information, or the safety and suitability of our products either alone or in combination with other products. It is the responsibility of the user to provide a safe workplace, using the health and safety information contained herein as a guide. This company will accept no liability for damages or loss incurred from the improper handling and use of this product



The Clorox Company
 1221 Broadway
 Oakland, CA 94612
 Tel. 1-510-271-7000

Material Safety Data Sheet

I Product: ORIGINAL PINE-SOL® MULTI-SURFACE CLEANER										
Description: CLEAR, AMBER, SLIGHTLY VISCOUS LIQUID WITH A PINE ODOR										
Other Designations	Distributor									
EPA Reg. No. 5813-101	The Clorox Sales Company 1221 Broadway Oakland, CA 94612									
Emergency Telephone Nos.										
For Medical Emergencies, call 1-800-446-1014. For Transportation Emergencies, call 1-800-424-9300 (Chemtrec).										
II Health Hazard Data	III Hazardous Ingredients									
<p>Causes moderate eye irritation.</p> <p>No medical conditions are known to be aggravated by exposure to this product.</p> <p>FIRST AID:</p> <p>EYE CONTACT: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. If irritation persists, call a doctor.</p> <p>SKIN CONTACT: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. If irritation develops, call a doctor.</p> <p>INGESTION: Call a poison control center or doctor immediately for treatment advice. Have person sip a glassful of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.</p> <p>INHALATION: Remove to fresh air. If breathing is affected, call a doctor.</p>	<table border="1"> <thead> <tr> <th>Ingredient</th> <th>Concentration</th> <th>Worker Exposure Limit</th> </tr> </thead> <tbody> <tr> <td>Alkyl alcohol ethoxylates CAS # 66455-15-0</td> <td>3 - 7%</td> <td>Not established.</td> </tr> <tr> <td>Glycolic acid CAS # 79-14-1</td> <td>1 - 5%</td> <td>Not established.</td> </tr> </tbody> </table> <p>None of the materials in this product are on the IARC, OSHA, or NTP carcinogen lists.</p>	Ingredient	Concentration	Worker Exposure Limit	Alkyl alcohol ethoxylates CAS # 66455-15-0	3 - 7%	Not established.	Glycolic acid CAS # 79-14-1	1 - 5%	Not established.
Ingredient	Concentration	Worker Exposure Limit								
Alkyl alcohol ethoxylates CAS # 66455-15-0	3 - 7%	Not established.								
Glycolic acid CAS # 79-14-1	1 - 5%	Not established.								
IV Special Protection and Precautions	V Transportation and Regulatory Data									
<p>Hygienic Practices: Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.</p> <p>Engineering Controls: Use general ventilation or local exhaust to minimize exposure to vapor or mist.</p> <p>Personal Protective Equipment: Wear safety glasses. Wear rubber or neoprene gloves if there is the potential for repeated or prolonged skin contact.</p>	<p>DOT/IMDG/IATA: Not restricted.</p> <p>EPA - SARA Title III/CERCLA: This product is regulated under Sections 311/312. This product contains no chemicals that are regulated under Section 313 or under Section 304/CERCLA.</p> <p>TSCA 8(b): All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.</p> <p>TSCA 12(b): This product is not subject to TSCA 12(b) reporting requirements.</p>									
VI Spill Procedures/Waste Disposal	VII Reactivity Data									
<p>Spill Procedures: Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.</p> <p>Waste Disposal: Dispose of in accordance with all applicable federal, state, and local regulations.</p>	<p>Stable under normal use and storage conditions.</p> <p>Do not use or mix with bleach-containing products or other household cleaners.</p>									
VIII Fire and Explosion Data	IX Physical Data									
<p>Flash Point: >93°C (closed cup).</p> <p>Fire Extinguishing Agents: Dry chemical, carbon dioxide (CO₂), foam, or water spray.</p>	<p>pH..... 2 - 3</p> <p>Specific gravity~1.0</p> <p>Solubility in waterAppreciable</p> <p>Viscosity ~15 cP</p>									

SAFETY DATA SHEET

MATERIAL SAFETY DATA SHEET

Last changed: 01/11/2005

Internal No.: 152400

Replaces date: 02/08/2004

152400 (Resusci Manikin Wipes)

1. IDENTIFICATION OF PRODUCT AND COMPANY

TRADE NAME	152400 (Resusci Manikin Wipes)
APPLICATION	Wet wipes.

Art. no.

152400

Producer/importer

Company	Laerdal Medical AS
Address	Pb. 377 Sentrum
Postal code	N-4002 Stavanger
Country	Norway
Telephone	+ 47 51 51 17 00
Fax	+ 47 51 52 35 57

Emergency Telephones

Emergency Phone	Information
+44 08 45 46 47	NHS Direct

2. COMPOSITION/INFORMATION ON INGREDIENTS

No	Ingredient name	EC No.	CAS No.	Conc. (wt%)	Classification
1	ethanol, ethyl alcohol	200-578-6	64-17-5	60 - 100 %	F,R11
2	diethyl phthalate	201-550-6	84-66-2	1 - 5 %	

Legend: T+=Very toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=Irritant, E=Explosive, O=Oxidising, F+=Extremely flammable, F=Highly flammable, N=Dangerous for the environment, Carc. = Carcinogenic, Mut. = Mutagenic, Repr. = Reproductive

INGREDIENT COMMENTS

R-phrases mentioned in section 2 are listed up in section 16 with complete text.

3. HAZARDS IDENTIFICATION

HEALTH

May be irritating to eyes. Protracted or repeated contact may irritate the skin.

FIRE AND EXPLOSION

Flammable.

ENVIRONMENT

Not regarded as dangerous for the environment.

4. FIRST AID MEASURES

INHALATION

Not relevant.

SKIN CONTACT

Wash skin thoroughly with soap and water.

SAFETY DATA SHEET

MATERIAL SAFETY DATA SHEET

Last changed: 01/11/2005

Internal No.: 152400

Replaces date: 02/08/2004

152400 (Resusci Manikin Wipes)

EYE CONTACT

Promptly wash eyes with plenty of water while lifting the eye lids. Remove any contact lenses and rinse with water for at least 15 minutes (keep the eyelids open). Get medical attention if any discomfort continues.

INGESTION

Apart from intentional ingestion, swallowing of major quantities is improbable.

Do not induce vomiting. Immediately give a glass of water if the injured person is conscious. Get medical attention.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Can be extinguished with water, powder, alcohol-resistant foam or carbon dioxide.

EXTINGUISHING METHODS

Protect against heat, use water to cool containers. Move container from fire area if it can be done without risk. If possible, fight fire from protected position.

FIRE AND EXPLOSION HAZARDS

Flammable. In the event of a fire, carbon monoxide and carbon dioxide are emitted.

PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS

General: Evacuate all personnel, use protective equipment for fire fighting. Use a portable breathing apparatus when the product is involved in a fire.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Eliminate all sources of ignition. Provide good ventilation.

METHODS FOR CLEANING UP

Collect and reclaim or dispose in sealed containers in licensed waste.

7. HANDLING AND STORAGE

HANDLING ADVICE

Provide good ventilation. No smoking. Eliminate all sources of ignition. Avoid inhalation of vapours. Avoid contact with eyes. Take precautionary measures against static discharges.

STORAGE

Flammable/combustible - Keep away from oxidizers, heat and flames. Keep in original container. Keep out of the reach of children.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

EXPOSURE CONTROL

Provide good ventilation. Wash at the end of each work shift and before eating, smoking and using the toilet. Eye wash facilities and emergency shower must be available when handling this product.

RESPIRATORY PROTECTION

No respirator is normally needed.



Material Safety Data Sheet
Material Name: ELMER'S NO-WRINKLE RUBBER CEMENT
MSDS ID: 00229810
 Issue Date: 12/16/10
 Revision 1.0400

Other Sections

[02](#) [03](#) [04](#) [05](#) [06](#) [07](#) [08](#) [09](#) [10](#) [11](#) [12](#) [13](#) [14](#) [15](#) [16](#)

*** Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ***

Material Name: ELMER'S NO-WRINKLE RUBBER CEMENT

Manufacturer Information

Elmer's Products, Inc.

1 Easton Oval

Columbus, OH 43219

Emergency Phone Number:

Poison Control Center

1-888-516-2502

For additional product information, access our website at www.elmers.com or call 1-888-435-6377. To place an order, call 1-800-848-9400.

Trade Names/Synonyms

E904; E905; 231; 232; 233; 60818; 61518

Product Use

adhesives

*** Section 2 - HAZARDS IDENTIFICATION ***

NFPA Ratings:

Health: 2 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

EMERGENCY OVERVIEW

Physical Form: liquid

Odor: mild odor, solvent odor

Major Health Hazards: potentially fatal if swallowed, respiratory tract irritation, skin irritation, eye irritation, central nervous system depression, allergic reactions

Physical Hazards: Flammable liquid and vapor. Vapor may cause flash fire.

POTENTIAL HEALTH EFFECTS

Inhalation

Short Term: irritation, changes in blood pressure, nausea, vomiting, stomach pain, chest pain, difficulty breathing, irregular heartbeat, headache, drowsiness, dizziness, disorientation, emotional disturbances, hallucinations, loss of coordination, suffocation, internal bleeding, kidney damage, unconsciousness, coma

Long Term: no information on significant adverse effects

Skin

Short Term: irritation, allergic reactions, absorption may occur, changes in blood pressure, nausea, vomiting, irregular heartbeat, headache, drowsiness, dizziness, loss of coordination

Long Term: irritation

Eye

Short Term: irritation, eye damage

Long Term: irritation

Ingestion

Short Term: potentially fatal if swallowed, irritation, changes in blood pressure, nausea, vomiting, diarrhea, stomach pain, difficulty breathing, irregular heartbeat, headache, drowsiness, dizziness, disorientation, emotional disturbances, hallucinations, loss of coordination, internal bleeding, kidney damage, unconsciousness, coma

Long Term: no information on significant adverse effects

*** Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS ***

CAS	Component	Percent
142-82-5	HEPTANE	>70
67-63-0	ISOPROPYL ALCOHOL	1-5

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Heptane isomers.

*** Section 4 - FIRST AID MEASURES ***

Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

Skin

If bonding occurs, immerse the bonded surfaces in warm soapy water. Peel or roll the surfaces apart using a blunt edge, such as a spatula or spoon handle. Do not pull surfaces apart with a direct opposing action. If burns occur, treat as thermal burns. Get medical attention, if needed.

Eyes

If bonding to tissues occurs, wash with large amounts of warm water. Cover both eyes with sterile, dry bandages. The eye will open without further action. Do not pull surfaces apart with a direct opposing action. If burns occur, treat as thermal burns. Get medical attention.

Ingestion

Wet lips with water. Peel or roll the surfaces apart using a blunt edge, such as a spatula or spoon handle. Do not pull surfaces apart with a direct opposing action. If a lump forms in the mouth, turn head to side. If burns occur, treat as thermal burns. Get medical attention.

Note to Physicians

Mineral oil, vegetable oil, or petroleum jelly may help soften the bonding between skin surfaces. For skin contact, consider acetone or nitromethane.

*** Section 5 - FIRE FIGHTING MEASURES ***

See Section 9 for Flammability Properties

Flammable Properties

Severe fire hazard. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Vapor/air mixtures are explosive.

Extinguishing Media

carbon dioxide, regular dry chemical, regular foam, water

Fire Fighting Measures

Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Flood with fine water spray. Do not scatter spilled material with high-pressure water streams. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910.1200. Standard must be consulted for specific requirements.

HMIS HAZARD RATING

HEALTH	1	0 = INSIGNIFICANT	3 = HIGH
FLAMMABILITY	0	1 = SLIGHT	4 = EXTREME
REACTIVITY	0	2 = MODERATE	

SAFETEC OF AMERICA

TRANSPORTATION INFORMATION

PROPER SHIPPING NAME	Not regulated		
HAZARD CLASS/PKG. GRP.	None/None	REF. LABEL	Not Applicable
IDENTIFICATION NUMBER	None	LABEL	None Required

SECTION 1 - PRODUCT / COMPANY IDENTIFICATION

IDENTITY (AS USED ON LABEL AND LIST)	Page 1 of 2
SaniZide Plus Germicidal Solution	
MANUFACTURER'S NAME	EMERGENCY TELEPHONE NUMBER (24 Hours)
Safetec of America, Inc.	(800) 255-3924
ADDRESS (NUMBER, STREET, P.O. BOX)	TELEPHONE NUMBER FOR INFORMATION
887 Kensington Ave.	(716) 895-1822
(CITY, STATE AND ZIP CODE)	DATE PREPARED
Buffalo, NY 14215	September 1, 2010
	SUPERSEDES
	January 27, 2009

SECTION 2 - HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

HAZARDOUS COMPONENTS (SPECIFIC CHEMICAL IDENTITY; COMMON NAME(S))	CAS #	% (wt.) (OPTIONAL)	ACGIH TLV/TWA/STEL	
			PPM	MG/M ³
Alkyl-dimethyl-benzyl-ammonium chloride	68391-01-5	0.14	None Established	None Established
Alkyl-dimethyl-ethyl-benzyl-ammonium chloride	68956-79-6	0.14	None Established	None Established

This product is not known to contain a substance subject to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR 372 at or above minimal amounts.

SECTION 3 - HEALTH HAZARD DATA

ROUTES OF ENTRY - SIGNS AND SYMPTOMS OF EXPOSURE	EMERGENCY AND FIRST AID PROCEDURES
INHALATION: Brief (minutes) inhalation will not cause adverse effects, although, constant inhalation may cause irritation to upper respiratory tract.	Remove victim to fresh air; provide oxygen if breathing is difficult; seek medical attention if required.
SKIN: Prolonged contact with skin may cause skin irritation.	Wash contaminated skin with mild soap and water; if irritation develops and persists, seek medical attention.
EYES: Brief contact to liquid or vapors may cause moderate irritation; prolonged contact may cause severe irritation associated with burning and redness.	Flush eyes with clear running water for a minimum of 25 minutes while holding eyelids open; if irritation persists, seek medical attention.
INGESTION: Ingestion of product may cause gastrointestinal irritation, nausea, vomiting and diarrhea.	DO NOT induce vomiting; seek immediate medical attention. Vomiting may be induced only under the supervision of a physician.
HEALTH HAZARDS (ACUTE AND CHRONIC):	Acute effects are possible irritation and discomfort; no known chronic effects have been established.
CARCINOGENICITY	NTP? No IARC MONOGRAPHS? No OSHA REGULATED? No
No additional information	
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Preexisting skin, eye, or respiratory disorders may become aggravated through prolonged exposure.	

MATERIAL SAFETY DATA SHEET

IDENTITY (AS USED ON LABEL AND LIST)

SaniZide Plus Germicidal Solution

Page 2 of 2

Date: January 27, 2009

SECTION 4 - FIRE FIGHTING MEASURES

FLASH POINT (METHOD USED) 200°F (SETA)	FLAMMABLE LIMITS (% Volume in Air for Lowest Flashing Component) LEL: Not Applicable	UEL: Not Applicable
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EXTINGUISHING MEDIACarbon dioxide (CO₂), water, dry chemicals, synthetic foam. Type BC or ABC extinguishers.**SPECIAL FIRE FIGHTING PROCEDURES**

Use self contained breathing apparatus for maximum respiratory protection. Use water spray to cool fire exposed containers and structures.

UNUSUAL FIRE AND EXPLOSIVE HAZARDS

Vapors can be heavier than air. Strong acids and bases react with aluminum to form hydrogen which is explosive if ignited.

SECTION 5 - PRECAUTIONS FOR SAFE HANDLING AND USE/LEAK PROCEDURES**STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED**

Provide adequate ventilation. Spills should be collected with approved inert absorbent for disposal. Use suitable disposal containers. Material collected with absorbent may be disposed of in a permitted landfill. Report per regulatory requirements.

WASTE DISPOSAL METHODS

Dispose of in accordance with Local, State, and Federal regulations. Products classified as non-hazardous may become hazardous waste upon contact with other products. Refer to "40 CFR Protection of Environment Parts 260-299" for complete waste disposal regulations. Consult your Local, State, or Federal Environmental Protection Agency before disposing of any chemicals.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep container(s) tightly closed when not in use. Avoid inhalation of high concentration of vapors. Store in cool, dry, well ventilated area away from possible sources of ignition sources. Keep this and other chemicals out of reach of children.

SECTION 6 - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION Ordinary, none required	VENTILATION LOCAL EXHAUST: Recommended MECHANICAL (GENERAL): Not required
PROTECTIVE GLOVES Use impervious gloves to prevent prolonged contact	EYE PROTECTION Safety glasses recommended
OTHER PROTECTIVE CLOTHING OR EQUIPMENT Ordinary, none required	WORK/HYGIENIC PRACTICES Practice safe work habits. Use according to label instructions.

SECTION 7 - PHYSICAL/CHEMICAL PROPERTIES

BOILING POINT 200°F	SPECIFIC GRAVITY (WATER = 1) 1.01
VAPOR PRESSURE (mm Hg) Not determined	MELTING POINT -1.1°C
VAPOR DENSITY (AIR = 1) >1	pH (1% solution in water) 11-12
SOLUBILITY IN WATER Complete	EVAPORATION RATE (n-butyl acetate = 1) Slower than ethyl ether
APPEARANCE AND ODOR Clear liquid	VOC, US EPA (%) 0

SECTION 8 - STABILITY AND REACTIVITY

STABILITY UNSTABLE: STABLE: XXX	CONDITIONS TO AVOID Extreme temperatures
--	--

INCOMPATIBILITIES (MATERIALS TO AVOID)

Strong oxidizers; anionic materials

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

Decomposition will not occur if handled/stored properly. Thermal decomposition may emit nitrous oxides, ammoniacal vapors.

HAZARDOUS POLYMERIZATION MAY OCCUR: WILL NOT OCCUR: XXX	CONDITIONS TO AVOID None known
---	--

The information contained herein is believed to be accurate but is not warranted to be so. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.



ANTIBACTERIAL SCRUBBING BUBBLES BATHROOM CLEANER

HMIS		NFPA	Personal protective equipment
Health	1	1	None Required
Fire Hazard	4	4	
Reactivity	0	0	

Version Number: 2

Preparation date: 2005-05-06

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: ANTIBACTERIAL SCRUBBING BUBBLES BATHROOM CLEANER
MSDS #: F-00009002
Product code: 94308, 3694079
Recommended use: Disinfectant.

Manufacturer, importer, supplier:
 Consumer Branded Professional Products, Div. Canadian Headquarters
 JohnsonDiversey, Inc. JohnsonDiversey - Canada, Inc.
 8310 16th Street 2401 Bristol Circle
 Sturtevant, Wisconsin 53177-0902 Oakville, Ontario L6H 6P1
 Phone: (888) 352-2249 Phone: 1-800-668-3131

Emergency telephone number: 1-800-851-7145 (Prosar); 1-651-917-6133 (Int'l Prosar); 01-800-710-3400 (México)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION. CONTENTS UNDER PRESSURE. MAY BE MILDLY IRRITATING TO EYES. MAY CAUSE SKIN IRRITATION .

Principle routes of exposure: Eyes. Skin. Inhalation.
Skin contact: Prolonged or repeated contact may dry skin and cause irritation.
Eye contact: May be mildly irritating to eyes.
Inhalation: None known.
Ingestion: None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS

Ingredient	CAS #	Weight %	LD50 Oral	LD50 Dermal	LC50 Inhalation
N-alkyl dimethyl benzyl ammonium chlorides	68391-01-5	0.11	Not available	Not available	Not available
N-alkyl dimethyl ethylbenzyl ammonium chlorides	68956-79-6	0.11	Not available	Not available	Not available
Diethylene glycol butyl ether	112-34-5	5 - 10%	4500 mg/kg (rat)	2700 mg/kg (rabbit)	Not available
Isobutane	75-28-5	5 - 10%	Not available	Not available	Not available

4. FIRST AID MEASURES

Eye contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. If irritation persists, get medical attention.
Skin contact: Flush immediately with plenty of water for at least 15 minutes. If irritation persists, get medical attention.
Inhalation: Yes. No specific first aid measures are required.
Ingestion: No specific first aid measures are required.
Aggravated Medical Conditions: Persons with pre-existing skin disorders may be more susceptible to irritating effects

5. FIRE-FIGHTING MEASURES

Available extinguishing media: Dry chemical, water spray, foam, carbon dioxide.
Specific hazards: Aerosol product - Containers may rocket or explode in heat of fire.
Unusual hazards: None known

Material Safety Data Sheet

according to ANSI Z400.1- 2004 and 29 CFR 1910.1200



SHOUT® TRIPLE-ACTING LAUNDRY STAIN REMOVER

Version 2.

Print Date 02/01/2010

Revision Date 01/20/2010

MSDS Number 350000004054

SITE_FORM Number

30000000000000003385.002

4. FIRST AID MEASURES

- Eye contact : Rinse with plenty of water. Get medical attention if irritation develops and persists.
- Skin contact : Wash off with soap and water. Get medical attention if irritation develops and persists.
- Inhalation : No special requirements
- Ingestion : Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Alcohol foam, carbon dioxide, dry chemical, water fog
- Specific hazards during fire fighting : Container may melt and leak in heat of fire.
- Further information : Standard procedure for chemical fires. Fight fire with normal precautions from a reasonable distance.
- Flash point : Note: not applicable
- Lower explosion limit : Note: no data available
- Upper explosion limit : Note: no data available

6. ACCIDENTAL RELEASE MEASURES

- Methods for cleaning up : Soak up with inert absorbent material.
Sweep up and shovel into suitable containers for disposal.
Dike large spills.
Flush away traces with water.

7. HANDLING AND STORAGE

Handling

- Advice on safe handling : Use only as directed.
KEEP OUT OF REACH OF CHILDREN AND PETS.

MATERIAL SAFETY DATA SHEET
MSDS D-118 REVISION 1

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

The Dial Corporation
15101 N. Scottsdale Road
Scottsdale, Arizona 85254-9934

Medical Emergencies: 1-888-689-9082
Chemtrec: 1-800-424-9300 (24 Hours Daily)
Other Information: 1-888-468-6673

PRODUCT: HARD SURFACE CLEANER DATE OF ISSUE: 11 July 2006

TRADE NAMES/SYNONYMS: **SOFT SCRUB CLEANSER**

CHEMICAL FAMILY: MIXTURE

I.D. NUMBERS: 99102009

NFPA RATINGS (Scale 0-4, where 4=high degree of hazard): HEALTH=1 FLAMMABILITY=1 REACTIVITY=0
HMIS RATINGS (Scale 0-4, where 4=severe hazard): HEALTH=2 FLAMMABILITY=1 REACTIVITY=0

SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Our hazard evaluation has identified the following chemical substance(s) as hazardous.

<u>INGREDIENT</u>	<u>CAS NUMBER</u>	<u>PERCENT (w/w)</u>
CALCIUM CARBONATE	1317-65-3	30 - 60 %
SODIUM ALKYL BENZENESULFONATE	68081-81-2	1 - 5 %
LAURAMINE OXIDE	1643-20-5	1 - 5 %

Carcinogen status of components: Not listed as carcinogenic by NTP, IARC, or OSHA.

SECTION 3: HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION: Causes eye irritation. Do not get in eyes. May cause skin irritation. For sensitive skin or prolonged use, wear gloves. KEEP OUT OF REACH OF CHILDREN.

ACUTE HEALTH EFFECTS:

- INHALATION: Unlikely to occur due to the physical properties of the product.
- SKIN CONTACT: Repeated or prolonged excessive contact may cause irritation or dermatitis.
- EYE CONTACT: Can cause moderate-to-severe eye irritation.
- INGESTION: Not an anticipated route of exposure given the nature of the finished product. Ingestion of large quantities may cause gastrointestinal irritation with nausea, vomiting and diarrhea.

CHRONIC HEALTH EFFECTS: Due to the nature and composition of this product no chronic health effects are anticipated.

MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE: No known health conditions are aggravated by exposure to this product.



Material Safety Data Sheet

1 - Chemical Product and Company Identification

Manufacturer: WD-40 Company Address: 1061 Cudahy Place (92110) P.O. Box 80607 San Diego, California, USA 92138 -0607 Telephone: Emergency only: 1-888-324-7596 (PROSAR) Information: 1-888-324-7596 Chemical Spills: 1-800-424-9300 (Chemtrec) 1-703-527-3887 (International Calls)	Chemical Name: Organic Mixture Trade Name: WD-40 Aerosol Product Use: Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion MSDS Date Of Preparation: 6/8/12
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2 – Hazards Identification

Emergency Overview: DANGER! Flammable aerosol. Contents under pressure. Harmful or fatal if swallowed. If swallowed, may be aspirated and cause lung damage. May cause eye irritation. Avoid eye contact. Use with adequate ventilation. Keep away from heat, sparks and all other sources of ignition. Symptoms of Overexposure: Inhalation: High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal. Skin Contact: Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis. Eye Contact: Contact may be irritating to eyes. May cause redness and tearing. Ingestion: This product has low oral toxicity. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death. Chronic Effects: None expected. Medical Conditions Aggravated by Exposure: Preexisting eye, skin and respiratory conditions may be aggravated by exposure. Suspected Cancer Agent: Yes No X
--

3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent
Aliphatic Hydrocarbon	64742-47-8	45-50
Petroleum Base Oil	64742-58-1 64742-53-6 64742-56-9 64742-65-0	<25
LVP Aliphatic Hydrocarbon	64742-47-8	12-18
Carbon Dioxide	124-38-9	2-3
Non-Hazardous Ingredients	Mixture	<10

4 – First Aid Measures

Ingestion (Swallowed): Aspiration Hazard. DO NOT induce vomiting. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately. Eye Contact: Flush thoroughly with water. Remove contact lenses if present after the first 5 minutes and continue flushing for several more minutes. Get medical attention if irritation persists. Skin Contact: Wash with soap and water. If irritation develops and persists, get medical attention.
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FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

LOVELAND PRODUCTS, INC.
P.O. Box 1286 • Greeley, CO 80632-1286

24-Hour Emergency Phone: 1-800-424-9300
Medical Emergencies: 1-866-944-8565
U.S. Coast Guard National Response Center: 1-800-424-8802

PRODUCT NAME: WHITEOUT® 2,4-D
CHEMICAL NAME: 2,4-D; 2-ethylhexyl ester of 2,4-Dichlorophenoxyacetic acid
CHEMICAL FAMILY: Phenoxy Herbicide
EPA REG. NO.: 34704-1032
MSDS Number: 001032-12-LPI

MSDS Revisions: Sections 1, 2, 12, 15

Date of Issue: 07/18/12

Supersedes: 03/25/10

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – CAUTION – Causes eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

This product is white liquid with faint chalk-like odor. Primary routes of entry are Inhalation, eye contact and skin contact.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
2-ethylhexyl ester of 2,4-D	60.80	1928-43-4	not established
Other Ingredients	39.20	Mixture	

4. FIRST AID MEASURES

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to do so. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If on skin or clothing: Take off contaminated clothing. Rinse skin with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565. Have the product label or container with you when calling a poison control center or doctor, or going for treatment.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): >199°F / >93°C (PMCC)
FLAMMABLE LIMITS (LFL & UFL): None established
EXTINGUISHING MEDIA: Considered combustible, use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog.

HAZARDOUS COMBUSTION PRODUCTS: Ammonia, oxides of nitrogen, chlorine-containing compounds and other unknown hazardous materials may be formed in a fire situation.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus with full protective clothing. Fight fire from upwind and keep all non-essential personnel out of area of intense smoke.

UNUSUAL FIRE AND EXPLOSION HAZARDS: If water is used to fight fire and/or cool containers, contain runoff, using dikes to prevent contamination of water supplies.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Contain spill and absorb with suitable absorbent, sweep up material and transfer to containers for possible land application according to label use or for proper disposal. Wash spill area with water containing strong detergent, absorb and sweep up as above. Check local, state and federal regulations for proper disposal.

CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

HANDLING: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE: Open dumping is prohibited. Do not store this product near fertilizers, seeds, insecticides or fungicides. Do not store near heat or open flame. Re-close all partially used containers by thoroughly tightening screw cap. Absorb any spill with suitable clay absorbent and dispose of as indicated in Section 13 "Pesticide Disposal." Do not contaminate water, food or feed by storage or disposal.

WINDEX GLASS CLEANER (RTU)

National Fire Protection Association (NFPA)



Hazardous Material Information System (HMIS)

Health	0
Fire Hazard	1
Reactivity	0

Protective Clothing: None required. Emergency Overview: Clear Blue. Liquid. See Section 9.

Section 1. Chemical Product and Company Identification

Product Name	WINDEX GLASS CLEANER (RTU)	Code	90122 & 90135 & 90139 & 90940 & 94099
Product Use	Industrial/Institutional: Cleaning product.	PMS#	455934
MSDS#	126011002	Validation Date	4/8/2003
U.S. Headquarters Drackett Professional A Division of S.C. Johnson Commercial Markets, Inc. 8310 16th Street Sturtevant, Wisconsin 53177-0902 Phone: (888) 352-2249		Print Date	4/8/2003
		Supersedes	10/21/2002.
		In Case of Emergency	(800) 851-7145

Section 2. Composition and Information on Ingredients

Ingredients	CAS #	% by Weight	Exposure Limits	LC50/LD50
2-Dutoxyethanol	111-76-2	0.5-1.5	OSHA (United States). TWA: 120 mg/m ³ ACGIH (United States). TWA: 97 mg/m ³	ORAL (LD50): Acute: 506 mg/kg [Rat]. DERMAL (LD50): Acute: 406 mg/kg [Rabbit]. VAPOR (LC50): Acute: 450 ppm 4 hour(s) [Rat].
Ethylene glycol hexyl ether Isopropyl Alcohol	112-25-4 67-63-0	0.5-1.5 1-5	Not available. OSHA (United States). TWA: 980 mg/m ³ STEL: 1225 mg/m ³ ACGIH (United States). TWA: 983 mg/m ³ STEL: 1230 mg/m ³	Not available. ORAL (LD50): Acute: 5045 mg/kg [Rat]. DERMAL (LD50): Acute: 12800 mg/kg [Rabbit]. VAPOR (LC50): Acute: 16000 ppm 8 hour(s) [Rat].
Water	7732-18-5	60-100	Not available.	Not available.

Section 3. Hazards Identification

Routes of Entry: Inhalation. Skin contact. Eye contact.

Potential Acute Health Effects

Eyes: None known.

Skin: None known.

Inhalation: None known.

Ingestion: None known.

Medical Conditions: None known.

Aggravated by Overexposure:

See Toxicological Information (section 11)

WINDEX GLASS CLEANER (RTU)

Section 4. First Aid Measures

Eye Contact	Rinse with plenty of running water.
Skin Contact	Rinse with plenty of running water.
Inhalation	No specific first aid measures are required.
Ingestion	No specific first aid measures are required.

Section 5. Fire Fighting Measures

Flammability of the Product	Although this product has a flash point below 200 Deg. F, it is an aqueous solution containing an alcohol and does not sustain combustion.
Flash Points	Closed cup: 51.1°C (124°F).
Products of Combustion	None known.
Fire Fighting Media and Instructions	Extinguish with water spray or carbon dioxide, dry chemical powder or appropriate foam. Normal fire fighting procedure may be used.
Special Remarks on Fire and Explosion Hazards	None known.

Section 6. Accidental Release Measures

Personal Precautions	Put on appropriate personal protective equipment (see Section 8.).
Environmental Precautions and Clean-up Methods	In the event of major spillage: Use appropriate containment to avoid environmental contamination. Sweep or scrape up material. Place in suitable clean, dry containers for disposal by approved methods. Use a water rinse for final clean-up.

Section 7. Handling and Storage

Handling	Avoid contact with eyes. Use appropriate hygiene measures when handling product. FOR INDUSTRIAL USE ONLY
Storage	Store in a dry, cool and well-ventilated area. Protect from freezing. KEEP OUT OF REACH OF CHILDREN.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	No special ventilation requirements. General room ventilation is adequate.
Personal Protection	
<i>Eyes</i>	No special requirements under normal use conditions.
<i>Hands</i>	No special requirements under normal use conditions.
<i>Respiratory</i>	No special requirements under normal use conditions.
<i>Feet</i>	No special requirements under normal use conditions.
<i>Body</i>	No special protective clothing is required.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.
Odor	Mild. Ammoniacal.
Color	Clear Blue.
pH	10.6 to 11.5 [Basic.]
Specific Gravity	1
Solubility in water	Complete.

1. IDENTIFICATION

Product Name	Mr. Clean Professional™ Finished Floor Cleaner - Made from Concentrate
Product Code(s)	4-00
Product ID:	95970698_DIL_PROF_NG
Product Type:	Finished Product - Professional Use Only
Recommended Use	Floor Care
Restrictions on Use	Use only as directed on label.
Manufacturer	Procter & Gamble Professional 2 P&G Plaza Cincinnati, Ohio 45202 Procter & Gamble Inc. P.O. Box 355, Station A Toronto, ON M5W 1C5 1-800-332-7787
E-mail Address	pgsds.im@pg.com
Emergency Telephone	Transportation (24 HR) CHEMTREC - 1-800-424-9300 (U.S./ Canada) or 1-703-527-3887 Mexico toll free in country: 800-681-9531

2. HAZARD IDENTIFICATION

This product is classified under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:.

Not Classified.

Hazard Statements	None
Hazard pictograms	None
Precautionary Statements - Prevention	None
Precautionary Statements - Response	None
Precautionary Statements - Storage	None
Precautionary Statements - Disposal	None

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Hazards not otherwise classified (HNOC) None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

Hazardous ingredients None.

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact	Rinse with plenty of water. Get medical attention immediately if irritation persists.
Skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
Ingestion	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.
Inhalation	Move to fresh air. If symptoms persist, call a physician.
Most important symptoms/effects, acute and delayed	None under normal use conditions.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Dry chemical, CO ₂ , alcohol-resistant foam or water spray. Dry chemical. Alcohol-resistant foam.
Unsuitable Extinguishing Media	None.
Special hazard	None known.
Special protective equipment for fire-fighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Specific hazards arising from the chemical	None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Use personal protective equipment. Do not get in eyes, on skin, or on clothing.
Advice for emergency responders	Use personal protective equipment as required.
Environmental precautions	Keep out of waterways. Do not discharge product into natural waters without pre-treatment

or adequate dilution.

Methods and materials for containment and cleaning up

Methods for containment	Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.
--------------------------------	---

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
Incompatible products	None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines	No exposure limits noted for ingredient(s).
----------------------------	---

Exposure controls

Engineering Measures	Distribution, Workplace and Household Settings: Ensure adequate ventilation Product Manufacturing Plant (needed at Product-Producing Plant ONLY): Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction
-----------------------------	---

Personal Protective Equipment

Eye Protection	Distribution, Workplace and Household Settings: No special protective equipment required Product Manufacturing Plant (needed at Product-Producing Plant ONLY): Use appropriate eye protection
Hand Protection	Distribution, Workplace and Household Settings: No special protective equipment required Product Manufacturing Plant (needed at Product-Producing Plant ONLY): Protective gloves
Skin and Body Protection	Distribution, Workplace and Household Settings: No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Wear suitable protective clothing

Respiratory Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
In case of insufficient ventilation wear suitable respiratory equipment

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State @20°C liquid
Appearance light yellow
Odor Lemon
Odor threshold No information available

<u>Property</u>	<u>Values</u>	<u>Note</u>
pH value	9.73	
Melting/freezing point	No information available	
Boiling point/boiling range	100 °C / 212 °F	
Flash point	> 93.3 °C / > 200 °F	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limit	No information available	
Lower Flammability Limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Relative density	1.001	
Water solubility	100%	
Solubility in other solvents	No information available	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity of Product	No information available	

VOC Content (%) Products comply with US state and federal regulations for VOC content in consumer products.

10. STABILITY AND REACTIVITY

Reactivity None under normal use conditions.
Stability Stable under normal conditions.
Hazardous polymerization Hazardous polymerization does not occur.
Hazardous Reactions None under normal processing.
Conditions to Avoid None under normal processing.
Materials to avoid None in particular.
Hazardous Decomposition Products None under normal use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Inhalation No known effect.

Skin contact	No known effect.
Ingestion	No known effect.
Eye contact	No known effect.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity	No known effect.
Skin corrosion/irritation	No known effect.
Serious eye damage/eye irritation	No known effect.
Skin sensitization	No known effect.
Respiratory sensitization	No known effect.
Germ cell mutagenicity	No known effect.
Neurological Effects	No known effect.
Reproductive toxicity	No known effect.
Developmental toxicity	No known effect.
Teratogenicity	No known effect.
STOT - single exposure	No known effect.
STOT - repeated exposure	No known effect.
Target Organ Effects	No known effect.
Aspiration hazard	No known effect.
Carcinogenicity	No known effect.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not expected to be hazardous to the environment.

Persistence and degradability	No information available.
Bioaccumulative potential	No information available.
Mobility	No information available.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste from Residues / Unused Products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
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Contaminated packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.
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California Hazardous Waste Codes (non-household setting)	331
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14. TRANSPORT INFORMATION

<u>DOT</u>	Not applicable - diluted product is not intended to be shipped
<u>IMDG</u>	Not applicable - diluted product is not intended to be shipped
<u>IATA</u>	Not applicable - diluted product is not intended to be shipped

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

California Proposition 65

This product is not subject to warning labeling under California Proposition 65.

U.S. State Regulations (RTK)

This product does not contain any substances regulated by state right-to-know regulations

International Inventories

United States

All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

Canada

This product is in compliance with CEPA for import by P&G.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

CEPA - Canadian Environmental Protection Act

16. OTHER INFORMATION

HMIS Ratings

Health hazard	0
Flammability	1
Physical hazard	0

NFPA Ratings

Health hazard	0
Flammability	1
Instability	0

Issuing Date: 09-Jan-2015

Revision Date: 07-Apr-2015

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

1. IDENTIFICATION

Product Name	Mr. Clean Professional™ Finished Floor Cleaner - Made from Concentrate
Product Code(s)	4-00
Product ID:	95970698_DIL_PROF_NG
Product Type:	Finished Product - Professional Use Only
Recommended Use	Floor Care
Restrictions on Use	Use only as directed on label.
Manufacturer	Procter & Gamble Professional 2 P&G Plaza Cincinnati, Ohio 45202 Procter & Gamble Inc. P.O. Box 355, Station A Toronto, ON M5W 1C5 1-800-332-7787
E-mail Address	pgsds.im@pg.com
Emergency Telephone	Transportation (24 HR) CHEMTREC - 1-800-424-9300 (U.S./ Canada) or 1-703-527-3887 Mexico toll free in country: 800-681-9531

2. HAZARD IDENTIFICATION

This product is classified under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:.

Not Classified.

Hazard Statements	None
Hazard pictograms	None
Precautionary Statements - Prevention	None
Precautionary Statements - Response	None
Precautionary Statements - Storage	None
Precautionary Statements - Disposal	None

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Hazards not otherwise classified (HNOC) None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

Hazardous ingredients None.

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact	Rinse with plenty of water. Get medical attention immediately if irritation persists.
Skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
Ingestion	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.
Inhalation	Move to fresh air. If symptoms persist, call a physician.
Most important symptoms/effects, acute and delayed	None under normal use conditions.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Dry chemical, CO ₂ , alcohol-resistant foam or water spray. Dry chemical. Alcohol-resistant foam.
Unsuitable Extinguishing Media	None.
Special hazard	None known.
Special protective equipment for fire-fighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Specific hazards arising from the chemical	None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Use personal protective equipment. Do not get in eyes, on skin, or on clothing.
Advice for emergency responders	Use personal protective equipment as required.
Environmental precautions	Keep out of waterways. Do not discharge product into natural waters without pre-treatment

or adequate dilution.

Methods and materials for containment and cleaning up

Methods for containment	Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
Incompatible products	None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines	No exposure limits noted for ingredient(s).
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Exposure controls

Engineering Measures	Distribution, Workplace and Household Settings: Ensure adequate ventilation Product Manufacturing Plant (needed at Product-Producing Plant ONLY): Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction
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Personal Protective Equipment

Eye Protection	Distribution, Workplace and Household Settings: No special protective equipment required Product Manufacturing Plant (needed at Product-Producing Plant ONLY): Use appropriate eye protection
Hand Protection	Distribution, Workplace and Household Settings: No special protective equipment required Product Manufacturing Plant (needed at Product-Producing Plant ONLY): Protective gloves
Skin and Body Protection	Distribution, Workplace and Household Settings: No special protective equipment required

Respiratory Protection

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Wear suitable protective clothing

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
In case of insufficient ventilation wear suitable respiratory equipment

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State @20°C liquid
Appearance light yellow
Odor Lemon
Odor threshold No information available

<u>Property</u>	<u>Values</u>	<u>Note</u>
pH value	9.73	
Melting/freezing point	No information available	
Boiling point/boiling range	100 °C / 212 °F	
Flash point	> 93.3 °C / > 200 °F	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limit	No information available	
Lower Flammability Limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Relative density	1.001	
Water solubility	100%	
Solubility in other solvents	No information available	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity of Product	No information available	

VOC Content (%) Products comply with US state and federal regulations for VOC content in consumer products.

10. STABILITY AND REACTIVITY

Reactivity None under normal use conditions.
Stability Stable under normal conditions.
Hazardous polymerization Hazardous polymerization does not occur.
Hazardous Reactions None under normal processing.
Conditions to Avoid None under normal processing.
Materials to avoid None in particular.
Hazardous Decomposition Products None under normal use.

11. TOXICOLOGICAL INFORMATION

Product Information
Information on likely routes of exposure

Inhalation No known effect.

Skin contact	No known effect.
Ingestion	No known effect.
Eye contact	No known effect.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity	No known effect.
Skin corrosion/irritation	No known effect.
Serious eye damage/eye irritation	No known effect.
Skin sensitization	No known effect.
Respiratory sensitization	No known effect.
Germ cell mutagenicity	No known effect.
Neurological Effects	No known effect.
Reproductive toxicity	No known effect.
Developmental toxicity	No known effect.
Teratogenicity	No known effect.
STOT - single exposure	No known effect.
STOT - repeated exposure	No known effect.
Target Organ Effects	No known effect.
Aspiration hazard	No known effect.
Carcinogenicity	No known effect.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not expected to be hazardous to the environment.

Persistence and degradability	No information available.
Bioaccumulative potential	No information available.
Mobility	No information available.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste from Residues / Unused Products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.
California Hazardous Waste Codes (non-household setting)	331

14. TRANSPORT INFORMATION

<u>DOT</u>	Not applicable - diluted product is not intended to be shipped
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U.S. State Regulations (RTK)

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International Inventories

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All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

Canada

This product is in compliance with CEPA for import by P&G.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

CEPA - Canadian Environmental Protection Act

16. OTHER INFORMATION

HMIS Ratings

Health hazard	0
Flammability	1
Physical hazard	0

NFPA Ratings

Health hazard	0
Flammability	1
Instability	0

Issuing Date:	09-Jan-2015
Revision Date:	07-Apr-2015

Disclaimer

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End of SDS

SAFETY DATA SHEET

pure FORCE

Floor Cleaner and Degreaser

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Floor Cleaner and Degreaser

Other means of identification : Not applicable

Recommended use : Floor Cleaner

Restrictions on use : Reserved for industrial and professional use.

Product dilution information : 1.56 % - 4.69 %

Company : PureForce
370 N. Wabasha Street
St. Paul, Minnesota USA 55102
1-866-444-7450

Emergency health information : 1-800-328-0026 (US/Canada), 1-651-222-5352 (outside US)

Issuing date : 07/05/2016

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Product AS SOLD

Skin irritation : Category 2

Eye irritation : Category 2A

Product AT USE DILUTION

Not a hazardous substance or mixture.

GHS label elements

Product AS SOLD

Hazard pictograms :



Signal Word : Warning

Hazard Statements : Causes skin irritation.
Causes serious eye irritation.

Precautionary Statements : **Prevention:**
Wash skin thoroughly after handling. Wear protective gloves/ eye protection/ face protection.
Response:
IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.

Product AT USE DILUTION

Precautionary Statements : **Prevention:**

SAFETY DATA SHEET

Floor Cleaner and Degreaser

Wash hands thoroughly after handling.
Response:
Get medical advice/ attention if you feel unwell.
Storage:
Store in accordance with local regulations.

Product AS SOLD

Other hazards : None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product AS SOLD

Pure substance/mixture : Mixture

Chemical name	CAS-No.	Concentration (%)
sodium dodecylbenzene sulfonate	25155-30-0	1 - 5
2-(2-butoxyethoxy)ethanol	112-34-5	1 - 5
poly(oxy-1,2-ethanediyl), .alpha.-undecyl-.omega.-hydroxy-	34398-01-1	1 - 5
sodium metasilicate	6834-92-0	1 - 5
Sodium Xylenesulfonate	1300-72-7	1 - 5

Product AT USE DILUTION

No hazardous ingredients

SECTION 4. FIRST AID MEASURES

Product AS SOLD

In case of eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Get medical attention if irritation develops and persists.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

Protection of first-aiders : If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

Product AT USE DILUTION

In case of eye contact : Rinse with plenty of water.

In case of skin contact : Rinse with plenty of water.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

SAFETY DATA SHEET

Floor Cleaner and Degreaser

SECTION 5. FIRE-FIGHTING MEASURES

Product AS SOLD

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during fire fighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials:
Carbon oxides
Nitrogen oxides (NOx)
Sulfur oxides
Oxides of phosphorus
- Special protective equipment for fire-fighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Product AS SOLD

- Personal precautions, protective equipment and emergency procedures : Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Product AT USE DILUTION

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : No special environmental precautions required.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

SECTION 7. HANDLING AND STORAGE

SAFETY DATA SHEET

Floor Cleaner and Degreaser

Product AS SOLD

- Advice on safe handling : Avoid contact with skin and eyes. Wash hands thoroughly after handling.
- Conditions for safe storage : Keep out of reach of children. Store in suitable labeled containers.
- Storage temperature : 10 °C to 50 °C

Product AT USE DILUTION

- Advice on safe handling : Wash hands after handling. For personal protection see section 8.
- Conditions for safe storage : Keep out of reach of children. Store in suitable labeled containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Product AS SOLD

Ingredients with workplace control parameters

Ingredients	CAS-No.	Form of exposure	Permissible concentration	Basis
2-(2-butoxyethoxy)ethanol	112-34-5	TWA (Inhalable fraction and vapor)	10 ppm	ACGIH

- Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

- Eye protection : Safety glasses with side-shields
- Hand protection : Wear the following personal protective equipment:
Standard glove type.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : No special protective equipment required.
- Respiratory protection : No personal respiratory protective equipment normally required.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling.

Product AT USE DILUTION

- Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

- Eye protection : No special protective equipment required.
- Hand protection : No special protective equipment required.
- Skin protection : No special protective equipment required.
- Respiratory protection : No personal respiratory protective equipment normally required.

SAFETY DATA SHEET**Floor Cleaner and Degreaser****SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

	Product AS SOLD	Product AT USE DILUTION
Appearance	: liquid	liquid
Color	: clear, light blue	colorless
Odor	: slight	slight
pH	: 11.8 - 13.2, 100 %	11.0 - 11.4
Flash point	: 149 °C closed cup, Does not sustain combustion.	
Odor Threshold	: No data available	
Melting point/freezing point	: No data available	
Initial boiling point and boiling range	: > 100 °C	
Evaporation rate	: No data available	
Flammability (solid, gas)	: No data available	
Upper explosion limit	: No data available	
Lower explosion limit	: No data available	
Vapor pressure	: No data available	
Relative vapor density	: No data available	
Relative density	: 1.025	
Water solubility	: soluble	
Solubility in other solvents	: No data available	
Partition coefficient: n-octanol/water	: No data available	
Autoignition temperature	: No data available	
Thermal decomposition	: No data available	
Viscosity, kinematic	: 48.868 mm ² /s (40 °C)	
Explosive properties	: No data available	
Oxidizing properties	: The substance or mixture is not classified as oxidizing.	
Molecular weight	: No data available	
VOC	: No data available	

SECTION 10. STABILITY AND REACTIVITY

Product AS SOLD	
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
Incompatible materials	: None known.
Hazardous decomposition	: Decomposition products may include the following materials:

SAFETY DATA SHEET**Floor Cleaner and Degreaser**

products	Carbon oxides Nitrogen oxides (NOx) Sulfur oxides Oxides of phosphorus
----------	---

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Potential Health Effects

Product AS SOLD	
Eyes	: Causes serious eye irritation.
Skin	: Causes skin irritation.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

Product AT USE DILUTION

Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

Experience with human exposure

Product AS SOLD	
Eye contact	: Redness, Pain, Irritation
Skin contact	: Redness, Irritation
Ingestion	: No symptoms known or expected.
Inhalation	: No symptoms known or expected.

Product AT USE DILUTION

Eye contact	: No symptoms known or expected.
Skin contact	: No symptoms known or expected.
Ingestion	: No symptoms known or expected.
Inhalation	: No symptoms known or expected.

Toxicity

Product AS SOLD	
Product	
Acute oral toxicity	: Acute toxicity estimate : > 5,000 mg/kg

SAFETY DATA SHEET

Floor Cleaner and Degreaser

Acute inhalation toxicity : No data available
Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg
Skin corrosion/irritation : Skin irritation
Serious eye damage/eye irritation : Eye irritation
Respiratory or skin sensitization : No data available
Carcinogenicity : No data available
Reproductive effects : No data available
Germ cell mutagenicity : No data available
Teratogenicity : No data available
STOT-single exposure : No data available
STOT-repeated exposure : No data available
Aspiration toxicity : No data available

SECTION 12. ECOLOGICAL INFORMATION

Product AS SOLD

Ecotoxicity

Environmental Effects : Harmful to aquatic life.

Product

Toxicity to fish : No data available
Toxicity to daphnia and other aquatic invertebrates : No data available
Toxicity to algae : No data available

Ingredients

Toxicity to fish : sodium dodecylbenzene sulfonate
96 h LC50: 3.2 mg/l

2-(2-butoxyethoxy)ethanol
96 h LC50 Fish: 1,300 mg/l

poly(oxy-1,2-ethanediyl), .alpha.-undecyl-.omega.-hydroxy-
96 h LC50 Fish: 3.2 mg/l

sodium metasilicate
96 h LC50 Fish: 210 mg/l

Ingredients

Toxicity to algae : Sodium Xylenesulfonate
96 h EC50: 230 mg/l

Persistence and degradability

Product AS SOLD

Biodegradable

Bioaccumulative potential

No data available

SAFETY DATA SHEET

Floor Cleaner and Degreaser

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Product AS SOLD

Disposal methods : Do not contaminate ponds, waterways or ditches with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.

RCRA - Resource Conservation and Recovery Authorization Act Hazardous waste : D002 (Corrosive)

Product AT USE DILUTION

Disposal methods : Diluted product can be flushed to sanitary sewer.

Disposal considerations : Dispose of in accordance with local, state, and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Product AS SOLD

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

Not dangerous goods

Sea transport (IMDG/IMO)

Not dangerous goods

SECTION 15. REGULATORY INFORMATION

Product AS SOLD

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
sodium dodecylbenzene sulfonate	25155-30-0	1000	20263

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SAFETY DATA SHEET

Floor Cleaner and Degreaser

SARA 311/312 Hazards : Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

2-(2-butoxyethoxy)ethanol 112-34-5 3.4749 %

California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

Switzerland. New notified substances and declared preparations :
The mixture contains substances listed on the Swiss Inventory

United States TSCA Inventory :
On TSCA Inventory

Canadian Domestic Substances List (DSL) :
All components of this product are on the Canadian DSL

Australia Inventory of Chemical Substances (AICS) :
On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemical Substances :
On the inventory, or in compliance with the inventory

Japan. ENCS - Existing and New Chemical Substances Inventory :
On the inventory, or in compliance with the inventory

Japan. ISHL - Inventory of Chemical Substances (METI) :
not determined

Korea. Korean Existing Chemicals Inventory (KECI) :
On the inventory, or in compliance with the inventory

Philippines Inventory of Chemicals and Chemical Substances (PICCS) :
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances in China (IECSC) :
On the inventory, or in compliance with the inventory

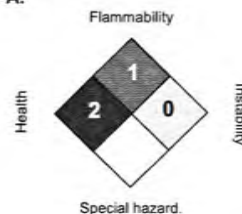
SECTION 16. OTHER INFORMATION

Product AS SOLD

SAFETY DATA SHEET

Floor Cleaner and Degreaser

NFPA:



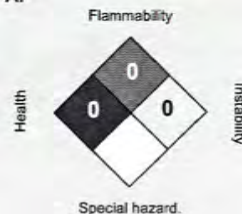
HMIS III:

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic

Product AT USE DILUTION

NFPA:



HMIS III:

HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic

Issuing date : 07/05/2016
Version : 1.0
Prepared by : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



Safety Data Sheet

Spartan Chemical Company, Inc.

Revision Date: 04-Aug-2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name:

CLOTHESLINE FRESH LAUNDRY DETERGENT [3]

Product Number:

7003

Recommended Use:

Laundry detergent

Uses Advised Against:

For Industrial and Institutional Use Only

Manufacturer/Supplier:

Spartan Chemical Company, Inc.
1110 Spartan Drive
Maumee, Ohio 43537 USA
800-537-8990 (Business hours)
www.spartanchemical.com

24 Hour Emergency Phone Numbers:

Medical Emergency/Information: 888-314-6171

Transportation/Spill/Leak: CHEMTREC 800-424-9300

2. HAZARDS IDENTIFICATION

GHS Classification

Serious Eye Damage/Eye Irritation: Category 2B

GHS Label Elements

Signal Word:

Warning

Symbols:

None

Hazard Statements:

Causes eye irritation.

Precautionary Statements:

Prevention:

Wash hands and any exposed skin thoroughly after handling.

Response:

-Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. See Safety Data Sheet Section 4: "FIRST AID MEASURES" for additional information.

-Specific Treatment:

Storage:

Not Applicable

Disposal:

Not Applicable

Hazards Not Otherwise Classified: Not Applicable

Other Information:

- May be harmful if swallowed.
- May cause skin irritation.
- Keep out of reach of children.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
water	7732-18-5	60-100
alcohol ethoxylate	68439-46-3	7-13
alcohol ethoxylate	66455-14-9	1-5
acrylic copolymer	PROPRIETARY	1-5
alkyl polyglucoside	68515-73-1	1-5

Specific chemical identity and/or exact percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

-Eye Contact:	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
-Skin Contact:	Wash with soap and water. If skin irritation occurs: Get medical attention.
-Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison control center or physician if you feel unwell.
-Ingestion:	Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if you feel unwell.
Note to Physicians:	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Product does not support combustion, Use extinguishing agent suitable for type of surrounding fire
Specific Hazards Arising from the Chemical:	Dried product is capable of burning. Combustion products are toxic.
Hazardous Combustion Products:	May include Carbon monoxide Carbon dioxide and other toxic gases or vapors.
Protective Equipment and Precautions for Firefighters:	Wear MSHA/NIOSH approved self-contained breathing apparatus (SCBA) and full protective gear. Cool fire-exposed containers with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
Environmental Precautions:	Do not rinse spill onto the ground, into storm sewers or bodies of water.
Methods for Clean-Up:	Prevent further leakage or spillage if safe to do so. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

7. HANDLING AND STORAGE

Advice on Safe Handling:	Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.
Storage Conditions:	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep from freezing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits:	None established.
Engineering Controls:	Provide good general ventilation. If work practices generate dust, fumes, gas, vapors or mists which expose workers to chemicals above the occupational exposure limits, local exhaust ventilation or other engineering controls should be considered.
Personal Protective Equipment	
Eye/Face Protection:	Not required with expected use.
Skin and Body Protection:	Not required with expected use.
Respiratory Protection:	Not required with expected use. If occupational exposure limits are exceeded or respiratory irritation occurs, use of a NIOSH/MSHA approved respirator suitable for the use-conditions and chemicals in Section 3 should be considered.
General Hygiene Considerations:	Wash hands and any exposed skin thoroughly after handling. See 29 CFR 1910.132-138 for further guidance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical State:	Liquid
Color:	Blue
Odor:	Pleasant
pH:	8.0-9.0
Melting Point / Freezing Point:	No information available.
Boiling Point / Boiling Range:	100 °C / 212 °F
Flash Point:	> 100 °C / > 212 °F ASTM D56
Evaporation Rate:	< 1 (BuAc = 1)
Flammability (solid, gas)	No information available.
Upper Flammability Limit:	No information available.
Lower Flammability Limit:	No information available.
Vapor Pressure:	No information available.
Vapor Density:	No information available.
Specific Gravity:	1.01
Solubility(ies):	Soluble in water
Partition Coefficient:	No information available.
Autoignition Temperature:	No information available.
Decomposition Temperature:	No information available.
Viscosity:	No information available.

10. STABILITY AND REACTIVITY

Reactivity:	This material is considered to be non-reactive under normal conditions of use.
Chemical Stability:	Stable under normal conditions.
Possibility of Hazardous Reactions:	Not expected to occur with normal handling and storage.
Conditions to Avoid:	Extremes of temperature and direct sunlight.
Incompatible Materials:	Strong oxidizing agents. Strong acids.
Hazardous Decomposition Products:	May include carbon monoxide, carbon dioxide (CO ₂) and other toxic gases or vapors.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Eyes, Skin, Ingestion, Inhalation.
Symptoms of Exposure:	
-Eye Contact:	Pain, redness and swelling of the conjunctiva.
-Skin Contact:	Drying of the skin.
-Inhalation:	Nasal discomfort and coughing.
-Ingestion:	Pain, nausea, vomiting and diarrhea.
Immediate, Delayed, Chronic Effects	
Product Information:	Data not available or insufficient for classification.

Numerical Measures of Toxicity

The following acute toxicity estimates (ATE) are calculated based on the GHS document.

ATEmix (oral):	2464 mg/kg
ATEmix (dermal):	2938 mg/kg

Component Acute Toxicity Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
water 7732-18-5	> 90 mL/kg (Rat)	Not Available	Not Available
alcohol ethoxylate 68439-46-3	= 1378 mg/kg (Rat)	> 2 g/kg (Rabbit)	Not Available
alcohol ethoxylate 66455-14-9	> 10 g/kg (Rat)	> 2 g/kg (Rat)	Not Available

Carcinogenicity: No components present at 0.1% or greater are listed as to being carcinogens by ACGIH, IARC, NTP or OSHA.

12. ECOLOGICAL INFORMATION**Ecotoxicity****Persistence and Degradability:** No information available.**Bioaccumulation:** No information available.**Other Adverse Effects:** No information available.**13. DISPOSAL CONSIDERATIONS****Disposal of Wastes:** Dispose of in accordance with federal, state and local regulations.**Contaminated Packaging:** Dispose of in accordance with federal, state and local regulations.**14. TRANSPORT INFORMATION****DOT:** Not Regulated**Proper Shipping Name:** Non-Hazardous Product**Special Provisions:** Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Check with a trained hazardous materials transportation expert for information specific to your situation.**IMDG:** Not Regulated**Proper Shipping Name:** Non-Hazardous Product**15. REGULATORY INFORMATION****TSCA Status:** (Toxic Substance Control Act Section 8(b) Inventory)

All chemical substances in this product are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

SARA 313

This product does not contain listed substances above the "de minimus" level

SARA 311/312 Hazard Categories**Acute Health Hazard:** Yes**Chronic Health Hazard:** No**Fire Hazard:** No**Sudden release of pressure hazard:** No**Reactive Hazard:** No**California Proposition 65**

This product is not subject to warning requirements under California Proposition 65.

16. OTHER INFORMATION**NFPA** Health Hazards: 1 Flammability: 0 Instability: 0 Special: N/A**HMIS** Health Hazards: 1 Flammability: 0 Physical Hazards: 0**Revision Date:** 04-Aug-2015**Reasons for Revision:** Section 14 and 15**Disclaimer:**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



Safety Data Sheet

Spartan Chemical Company, Inc.

Revision Date: 31-Jul-2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name:

ISHINE

Product Number:

4055 , 4059

Recommended Use:

Floor Finish

Uses Advised Against:

For Industrial and Institutional Use Only

Manufacturer/Supplier:

Spartan Chemical Company, Inc.
1110 Spartan Drive
Maumee, Ohio 43537 USA
800-537-8990 (Business hours)
www.spartanchemical.com

24 Hour Emergency Phone Numbers:

Medical Emergency/Information: 888-314-6171

Transportation/Spill/Leak: CHEMTREC 800-424-9300

2. HAZARDS IDENTIFICATION

GHS Classification

Not Classified

Not classified as hazardous by 29 CFR 1910.1200 (OSHA HazCom-GHS)

GHS Label Elements

Signal Word:

No signal word

Symbols:

None

Hazard Statements:

No hazard statements

Precautionary Statements:

Prevention:

Not Applicable

Response:

-Specific Treatment:

See Safety Data Sheet Section 4: "FIRST AID MEASURES" for additional information.

Storage:

Not Applicable

Disposal:

Not Applicable

Hazards Not Otherwise Classified: Not Applicable

Other Information:

- May cause skin irritation.
- May cause eye irritation.
- May be harmful if swallowed.
- Inhalation of vapors or mist may cause respiratory irritation.
- Keep out of reach of children.

0.03669% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
water	7732-18-5	40-70
acrylic polymer	PROPRIETARY	10-30
diethylene glycol monoethyl ether	111-90-0	3-7
tributoxyethyl phosphate	78-51-3	1-5
styrene/acrylic copolymer	PROPRIETARY	1-5

dipropylene glycol monomethyl ether	34590-94-8	1-5
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Specific chemical identity and/or exact percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

-Eye Contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
-Skin Contact:	Wash with soap and water. If skin irritation occurs: Get medical attention.
-Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison control center or physician if you feel unwell.
-Ingestion:	Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if you feel unwell.
Note to Physicians:	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Product does not support combustion, Use extinguishing agent suitable for type of surrounding fire
Specific Hazards Arising from the Chemical:	Dried product is capable of burning. Combustion products are toxic.
Hazardous Combustion Products:	May include Carbon monoxide Carbon dioxide and other toxic gases or vapors.
Protective Equipment and Precautions for Firefighters:	Wear MSHA/NIOSH approved self-contained breathing apparatus (SCBA) and full protective gear. Cool fire-exposed containers with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
Environmental Precautions:	Do not rinse spill onto the ground, into storm sewers or bodies of water.
Methods for Clean-Up:	Prevent further leakage or spillage if safe to do so. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

7. HANDLING AND STORAGE

Advice on Safe Handling:	Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.
Storage Conditions:	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep from freezing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits:

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH
dipropylene glycol monomethyl ether 34590-94-8	STEL: 150 ppm TWA: 100 ppm S*	TWA: 100 ppm TWA: 600 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 600 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 900 mg/m ³ (vacated) S* S*	IDLH: 600 ppm TWA: 100 ppm TWA: 600 mg/m ³ STEL: 150 ppm STEL: 900 mg/m ³

Engineering Controls:	Provide good general ventilation. If work practices generate dust, fumes, gas, vapors or mists which expose workers to chemicals above the occupational exposure limits, local exhaust ventilation or other engineering controls should be considered.
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Personal Protective Equipment

Eye/Face Protection:	Not required with expected use.
Skin and Body Protection:	Not required with expected use.
Respiratory Protection:	Not required with expected use. If occupational exposure limits are exceeded or respiratory irritation occurs, use of a NIOSH/MSHA approved respirator suitable for the use-conditions and chemicals in Section 3 should be considered.
General Hygiene Considerations:	Wash hands and any exposed skin thoroughly after handling. See 29 CFR 1910.132-138 for further guidance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical State:	Liquid
Color:	White emulsion
Odor:	Slight ammonia odor
pH:	8.0-9.0
Melting Point / Freezing Point:	No information available.
Boiling Point / Boiling Range:	100 °C / 212 °F
Flash Point:	> 99 °C / > 210 °F ASTM D56
Evaporation Rate:	< 1 (BuAc = 1)
Flammability (solid, gas)	No information available.
Upper Flammability Limit:	No information available.
Lower Flammability Limit:	No information available.
Vapor Pressure:	No information available.
Vapor Density:	No information available.
Specific Gravity:	1.037
Solubility(ies):	Miscible in water
Partition Coefficient:	No information available.
Autoignition Temperature:	No information available.
Decomposition Temperature:	No information available.
Viscosity:	No information available.

10. STABILITY AND REACTIVITY

Reactivity:	This material is considered to be non-reactive under normal conditions of use.
Chemical Stability:	Stable under normal conditions.
Possibility of Hazardous Reactions:	Not expected to occur with normal handling and storage.
Conditions to Avoid:	Extremes of temperature and direct sunlight.
Incompatible Materials:	Strong oxidizing agents. Strong acids.
Hazardous Decomposition Products:	May include carbon monoxide, carbon dioxide (CO ₂) and other toxic gases or vapors.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Eyes, Skin, Ingestion, Inhalation.
Symptoms of Exposure:	
-Eye Contact:	Pain and redness.
-Skin Contact:	Drying of the skin.
-Inhalation:	Nasal discomfort and coughing.
-Ingestion:	Pain, nausea, vomiting and diarrhea.
Immediate, Delayed, Chronic Effects	
Product Information:	Data not available or insufficient for classification.
Target Organ Effects:	Central nervous system. -Eyes. Respiratory System.
Numerical Measures of Toxicity	
The following acute toxicity estimates (ATE) are calculated based on the GHS document.	
ATEmix (oral):	24836 mg/kg
ATEmix (dermal):	50653 mg/kg
ATEmix (inhalation-dust/mist):	39.3 mg/l

Component Acute Toxicity Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
water 7732-18-5	> 90 mL/kg (Rat)	Not Available	Not Available
diethylene glycol monoethyl ether 111-90-0	= 1920 mg/kg (Rat)	= 4200 µL/kg (Rabbit) = 6 mL/kg (Rat)	> 5240 mg/m ³ (Rat) 4 h
tributoxyethyl phosphate 78-51-3	= 3000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 6.4 mg/L (Rat) 4 h
dipropylene glycol monomethyl ether 34590-94-8	= 5230 mg/kg (Rat)	= 9500 mg/kg (Rabbit)	Not Available

Carcinogenicity: No components present at 0.1% or greater are listed as to being carcinogens by ACGIH, IARC, NTP or OSHA.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Chemical Name	Algae/Aquatic Plants	Fish	Toxicity to Microorganisms	Crustacea
diethylene glycol monoethyl ether 111-90-0	Not Available	11400 - 15700: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 11600 - 16700: 96 h Pimephales promelas mg/L LC50 flow-through 10000: 96 h Lepomis macrochirus mg/L LC50 static 19100 - 23900: 96 h Lepomis macrochirus mg/L LC50 flow-through 13400: 96 h Salmo gairdneri mg/L LC50 flow-through	Not Available	3940 - 4670: 48 h Daphnia magna mg/L EC50
tributoxyethyl phosphate 78-51-3	Not Available	10.4 - 12.0: 96 h Pimephales promelas mg/L LC50 flow-through	Not Available	Not Available
dipropylene glycol monomethyl ether 34590-94-8	Not Available	10000: 96 h Pimephales promelas mg/L LC50 static	Not Available	1919: 48 h Daphnia magna mg/L LC50

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

Other Adverse Effects: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal of Wastes: Dispose of in accordance with federal, state and local regulations.
Contaminated Packaging: Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT: Not Regulated
Proper Shipping Name: Non-Hazardous Product
Special Provisions: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Check with a trained hazardous materials transportation expert for information specific to your situation.

IMDG: Not Regulated
Proper Shipping Name: Non-Hazardous Product

15. REGULATORY INFORMATION

TSCA Status: (Toxic Substance Control Act Section 8(b) Inventory)

All chemical substances in this product are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

SARA 313

This product contains the following listed substances:

diethylene glycol monoethyl ether

CAS No 111-90-0 applies to R-(OCH₂CH₂)_n-OR', where n = 1, 2, or 3, R=Alkyl C7 or less, or R = Phenyl or Alkyl substituted phenyl, R' = H or Alkyl C7 or less, or OR' consisting of Carboxylic acid ester, Sulfate, Phosphate, Nitrate, or Sulfonate, Chemical Category N230

SARA 311/312 Hazard Categories

Acute Health Hazard:	Yes
Chronic Health Hazard:	No
Fire Hazard:	No
Sudden release of pressure hazard:	No
Reactive Hazard:	No

California Proposition 65

This product is not subject to warning requirements under California Proposition 65.

16. OTHER INFORMATION

NFPA	Health Hazards: 1	Flammability: 0	Instability: 0	Special: N/A
HMIS	Health Hazards: 1	Flammability: 0	Physical Hazards: 0	

Revision Date: 31-Jul-2015
 Reasons for Revision: Section 14 and 15

Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



Safety Data Sheet

Spartan Chemical Company, Inc.

Revision Date: 20-Dec-2016

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name:

CLEAN ON THE GO CLEAN BY PEROXY [15]

Product Number:

4820

Recommended Use:

Cleaning agent

Uses Advised Against:

For Industrial and Institutional Use Only

Manufacturer/Supplier:

Spartan Chemical Company, Inc.
1110 Spartan Drive
Maumee, Ohio 43537 USA
800-537-8990 (Business hours)
www.spartanchemical.com

24 Hour Emergency Phone Numbers:

Medical Emergency/Information: 888-314-6171

Transportation/Spill/Leak: CHEMTREC 800-424-9300

2. HAZARDS IDENTIFICATION

GHS Classification

Skin Corrosion/Irritation:

Category 2

Serious Eye Damage/Eye Irritation:

Category 2A

GHS Label Elements

Signal Word:

Warning

Symbols:



Hazard Statements:

Causes serious eye irritation
Causes skin irritation.

Precautionary Statements:

Prevention:

Wash hands and any exposed skin thoroughly after handling.
Wear protective gloves
Wear eye / face protection

Response:

-Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

-Skin

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash before reuse.

-Specific Treatment:

See Safety Data Sheet Section 4: "FIRST AID MEASURES" for additional information.

Storage:

Not Applicable

Disposal:

Not Applicable

Hazards Not Otherwise Classified: Not Applicable

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Other Information:	<ul style="list-style-type: none"> • May be harmful if swallowed. • Inhalation of vapors or mist may cause respiratory irritation. • Keep out of reach of children.
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3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
water	7732-18-5	60-100
alcohol ethoxylate	34398-01-1	1-5
hydrogen peroxide	7722-84-1	1-5
alcohol ethoxylate	68439-46-3	1-5
quaternary amine	68478-94-4	1-5
fragrance	PROPRIETARY	<0.1

Specific chemical identity and/or exact percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

-Eye Contact:	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
-Skin Contact:	Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical attention.
-Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison control center or physician if you feel unwell.
-Ingestion:	Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if you feel unwell.
Note to Physicians:	Contains hydrogen peroxide. Ingestion may result in distention of esophagus and stomach.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Product does not support combustion, Use extinguishing agent suitable for type of surrounding fire
Specific Hazards Arising from the Chemical:	Combustion products are toxic. Releases oxygen when heated to decomposition which may intensify fire.
Hazardous Combustion Products:	May include Carbon monoxide Carbon dioxide and other toxic gases or vapors.
Protective Equipment and Precautions for Firefighters:	Wear MSHA/NIOSH approved self-contained breathing apparatus (SCBA) and full protective gear. Cool fire-exposed containers with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
Environmental Precautions:	Do not rinse spill onto the ground, into storm sewers or bodies of water.
Methods for Clean-Up:	Prevent further leakage or spillage if safe to do so. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

7. HANDLING AND STORAGE

Advice on Safe Handling:	Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.
Storage Conditions:	Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.
Incompatible Materials:	Sodium hypochlorite (or other hypochlorites). Metals.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits:

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH
hydrogen peroxide 7722-84-1	TWA: 1 ppm	TWA: 1 ppm TWA: 1.4 mg/m ³ (vacated) TWA: 1 ppm (vacated) TWA: 1.4 mg/m ³	IDLH: 75 ppm TWA: 1 ppm TWA: 1.4 mg/m ³

Engineering Controls:

Provide good general ventilation.
If work practices generate dust, fumes, gas, vapors or mists which expose workers to chemicals above the occupational exposure limits, local exhaust ventilation or other engineering controls should be considered.

Personal Protective Equipment

Eye/Face Protection:

Wear splash goggles.

Skin and Body Protection:

Wear rubber or other chemical-resistant gloves.

Respiratory Protection:

Not required with expected use.
If occupational exposure limits are exceeded or respiratory irritation occurs, use of a NIOSH/MSHA approved respirator suitable for the use-conditions and chemicals in Section 3 should be considered.

General Hygiene Considerations:

Wash hands and any exposed skin thoroughly after handling.
See 29 CFR 1910.132-138 for further guidance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical State:	Liquid
Color:	Light blue
Odor:	Pleasant
pH:	Undiluted: 2.1-3.0 / Diluted 1:64: 3.0-5.5
Melting Point / Freezing Point:	No information available.
Boiling Point / Boiling Range:	100 °C / 212 °F
Flash Point:	> 100 °C / > 212 °F
Evaporation Rate:	< 1 (BuAc = 1)
Flammability (solid, gas)	No information available.
Upper Flammability Limit:	No information available.
Lower Flammability Limit:	No information available.
Vapor Pressure:	No information available.
Vapor Density:	No information available.
Specific Gravity:	1.014
Solubility(ies):	Soluble in water
Partition Coefficient:	No information available.
Autoignition Temperature:	No information available.
Decomposition Temperature:	No information available.
Viscosity:	No information available.

10. STABILITY AND REACTIVITY

Reactivity:

This material is considered to be non-reactive under normal conditions of use.

Chemical Stability:

Stable under normal conditions.

Possibility of Hazardous Reactions:

Contact with sodium hypochlorite (or other hypochlorites) releases chlorine gas.

Conditions to Avoid:

Extremes of temperature and direct sunlight.

Incompatible Materials:

Sodium hypochlorite (or other hypochlorites). Metals.

Hazardous Decomposition

May include carbon monoxide, carbon dioxide (CO₂) and other toxic gases or vapors.

Products:

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:

Eyes, Skin, Ingestion, Inhalation.

Symptoms of Exposure:

-Eye Contact:

Pain, redness, swelling of the conjunctiva and blurred vision.

-Skin Contact: Pain, redness and cracking of the skin.
-Inhalation: Nasal discomfort and coughing.
-Ingestion: Pain, nausea, vomiting and diarrhea.
Immediate, Delayed, Chronic Effects
Product Information: Data not available or insufficient for classification.

Target Organ Effects: -Eyes. Respiratory System. -Skin.

Numerical Measures of Toxicity

The following acute toxicity estimates (ATE) are calculated based on the GHS document.

ATEmix (oral): 7035 mg/kg
 ATEmix (dermal): 39625 mg/kg
 ATEmix (inhalation-gas): 22943 mg/l
 ATEmix (inhalation-dust/mist): 66 mg/l

Component Acute Toxicity Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
water 7732-18-5	> 90 mL/kg (Rat)	Not Available	Not Available
hydrogen peroxide 7722-84-1	= 801 mg/kg (Rat)	= 4060 mg/kg (Rat) = 2000 mg/kg (Rabbit)	= 2 mg/L (Rat) 4 h
alcohol ethoxylate 68439-46-3	= 1378 mg/kg (Rat)	> 2 g/kg (Rabbit)	Not Available

Carcinogenicity: No components present at 0.1% or greater are listed as to being carcinogens by ACGIH, IARC, NTP or OSHA.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Chemical Name	Algae/Aquatic Plants	Fish	Toxicity to Microorganisms	Crustacea
hydrogen peroxide 7722-84-1	2.5: 72 h <i>Chlorella vulgaris</i> mg/L EC50	16.4: 96 h <i>Pimephales promelas</i> mg/L LC50 18 - 56: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 10.0 - 32.0: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static	Not Available	7.7: 24 h <i>Daphnia magna</i> mg/L EC50 18 - 32: 48 h <i>Daphnia magna</i> mg/L EC50 Static

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

Other Adverse Effects: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal of Wastes: Dispose of in accordance with federal, state and local regulations.

Contaminated Packaging: Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT: Not Regulated
Proper Shipping Name: Non Hazardous Product
Special Provisions: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Check with a trained hazardous materials transportation expert for information specific to your situation.

IMDG: Not Regulated
Proper Shipping Name: Non Hazardous Product

15. REGULATORY INFORMATION

TSCA Status: (Toxic Substance Control Act Section 8(b) Inventory)

All chemical substances in this product are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

SARA 313

This product does not contain listed substances above the "de minimus" level

SARA 311/312 Hazard Categories

Acute Health Hazard:	Yes
Chronic Health Hazard:	No
Fire Hazard:	No
Sudden release of pressure hazard:	No
Reactive Hazard:	No

California Proposition 65

This product is not subject to warning requirements under California Proposition 65.

16. OTHER INFORMATION

NFPA	Health Hazards: 2	Flammability: 0	Instability: 1	Special: N/A
HMIS	Health Hazards: 2	Flammability: 0	Physical Hazards: 1	

Revision Date: 20-Dec-2016
Reasons for Revision: Section 9

Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet



Safety Data Sheet

Spartan Chemical Company, Inc.

Revision Date: 09-Mar-2016

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name: SHINELINE EMULSIFIER PLUS
Product Number: 0084
Recommended Use: Stripping solution
Uses Advised Against: For Industrial and Institutional Use Only

Manufacturer/Supplier: Spartan Chemical Company, Inc.
1110 Spartan Drive
Maumee, Ohio 43537 USA
800-537-8990 (Business hours)
www.spartanchemical.com

24 Hour Emergency Phone Numbers:

Medical Emergency/Information: 888-314-6171
Transportation/Spill/Leak: CHEMTREC 800-424-9300

2. HAZARDS IDENTIFICATION

GHS Classification

Acute Toxicity - Oral: Category 4
Acute toxicity - Inhalation (Dusts/Mists) Category 4
Skin Corrosion/Irritation: Category 1
Serious Eye Damage/Eye Irritation: Category 1
Corrosive to Metals: Category 1

GHS Label Elements

Signal Word:

Danger

Symbols:



Hazard Statements:

Harmful if swallowed.
Harmful if inhaled.
Causes severe skin burns and serious eye damage.
May be corrosive to metals.

Precautionary Statements:

Prevention:

Wash hands and any exposed skin thoroughly after handling.
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Do not breathe mist, vapors or spray.
Wear protective gloves. Wear eye / face protection. Wear protective clothing.
Keep in original or other corrosion resistant container.
IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse

Response:

-Eyes

-Skin

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-Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

-Ingestion: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

-Specific Treatment: See Safety Data Sheet Section 4: "FIRST AID MEASURES" for additional information.

Spill: Absorb spillage to prevent material damage.

Storage: Store locked up. Store in corrosion resistant container.

Disposal: Dispose of contents and container in accordance with local, state and federal regulations.

Hazards Not Otherwise Classified: Not Applicable

Other Information:

- Corrosive.
- Harmful or fatal if swallowed.
- Harmful contact may not cause immediate pain.
- Take off and destroy contaminated shoes.
- Keep out of reach of children.
- NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
water	7732-18-5	30-60
2-butoxyethanol	111-76-2	10-30
monoethanolamine	141-43-5	1-5
sodium xylene sulfonate	1300-72-7	1-5
sodium hydroxide	1310-73-2	1-5
alkyl polyglucoside	132778-08-6	1-5

Specific chemical identity and/or exact percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

-Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.

-Skin Contact: Take off immediately all contaminated clothing and shoes. Rinse with water or shower for at least 15 minutes. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN. Wash contaminated clothing before reuse. Discard or destroy contaminated shoes.

-Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN.

-Ingestion: Rinse mouth. Do NOT induce vomiting. IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN. Never give anything by mouth to an unconscious person.

Note to Physicians: NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Product does not support combustion, Use extinguishing agent suitable for type of surrounding fire

Specific Hazards Arising from the Chemical: Dried product is capable of burning. Combustion products are toxic.

Hazardous Combustion Products: May include Carbon monoxide Carbon dioxide and other toxic gases or vapors.

Protective Equipment and Precautions for Firefighters: Wear MSHA/NIOSH approved self-contained breathing apparatus (SCBA) and full protective gear. Cool fire-exposed containers with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
Environmental Precautions:	Do not rinse spill onto the ground, into storm sewers or bodies of water.
Methods for Clean-Up:	Prevent further leakage or spillage if safe to do so. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

7. HANDLING AND STORAGE

Advice on Safe Handling:	Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.
Storage Conditions:	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep from freezing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits:

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH
2-butoxyethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m ³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m ³ (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m ³
monoethanolamine 141-43-5	STEL: 6 ppm TWA: 3 ppm	TWA: 3 ppm TWA: 6 mg/m ³ (vacated) TWA: 3 ppm (vacated) TWA: 8 mg/m ³ (vacated) STEL: 6 ppm (vacated) STEL: 15 mg/m ³	IDLH: 30 ppm TWA: 3 ppm TWA: 8 mg/m ³ STEL: 6 ppm STEL: 15 mg/m ³
sodium hydroxide 1310-73-2	Ceiling: 2 mg/m ³	TWA: 2 mg/m ³ (vacated) Ceiling: 2 mg/m ³	IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³

Engineering Controls:	Provide good general ventilation. If work practices generate dust, fumes, gas, vapors or mists which expose workers to chemicals above the occupational exposure limits, local exhaust ventilation or other engineering controls should be considered.
Personal Protective Equipment	
Eye/Face Protection:	Wear splash goggles. For severe use-conditions, wear a face shield over the goggles.
Skin and Body Protection:	Wear rubber or other chemical-resistant gloves and solvent / alkali resistant boots. The use of other protective equipment should be considered in order to prevent or minimize contact with this product.
Respiratory Protection:	Not required with expected use. If occupational exposure limits are exceeded or respiratory irritation occurs, use of a NIOSH/MSHA approved respirator suitable for the use-conditions and chemicals in Section 3 should be considered.
General Hygiene Considerations:	Wash hands and any exposed skin thoroughly after handling. See 29 CFR 1910.132-138 for further guidance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical State:	Liquid
Color:	Clear
Odor:	Fresh
pH:	13.4-14.0
Melting Point / Freezing Point:	No information available.
Boiling Point / Boiling Range:	100 °C / 212 °F
Flash Point:	> 100 °C / > 212 °F ASTM D56
Evaporation Rate:	< 1 (Butyl acetate = 1)
Flammability (solid, gas)	No information available.
Upper Flammability Limit:	No information available.
Lower Flammability Limit:	No information available.
Vapor Pressure:	No information available.
Vapor Density:	No information available.
Specific Gravity:	1.04
Solubility(ies):	Soluble in water
Partition Coefficient:	No information available.
Autoignition Temperature:	No information available.
Decomposition Temperature:	No information available.
Viscosity:	No information available.

10. STABILITY AND REACTIVITY

Reactivity:	This material is considered to be non-reactive under normal conditions of use.
Chemical Stability:	Stable under normal conditions.
Possibility of Hazardous Reactions:	Contact with aluminum or other reactive metals may release hydrogen gas.
Conditions to Avoid:	Extremes of temperature and direct sunlight.
Incompatible Materials:	Strong oxidizing agents. Strong acids.
Hazardous Decomposition Products:	May include carbon monoxide, carbon dioxide (CO ₂) and other toxic gases or vapors.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Eyes, Skin, Ingestion, Inhalation.
Symptoms of Exposure:	
-Eye Contact:	Pain, redness, swelling of the conjunctiva and tissue damage. Eye contact may cause permanent damage.
-Skin Contact:	Pain, redness, blistering and possible chemical burn.
-Inhalation:	Irritation or damage to the mucus membranes of the respiratory tract. Nasal discomfort and coughing.
-Ingestion:	Damage or chemical burns to mouth, throat and stomach. Pain, nausea, vomiting and diarrhea.
Immediate, Delayed, Chronic Effects	
Product Information:	Data not available or insufficient for classification.
Chronic Toxicity:	May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.
Target Organ Effects:	Blood. Central nervous system. -Eyes. hematopoietic system. kidney. Liver. Respiratory System. -Skin.
Numerical Measures of Toxicity	
The following acute toxicity estimates (ATE) are calculated based on the GHS document.	
ATEmix (oral):	1638 mg/kg
ATEmix (dermal):	3227 mg/kg
ATEmix (inhalation-dust/mist):	4.8 mg/l
ATEmix (inhalation-vapor):	7.9 mg/l

Component Acute Toxicity Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
water 7732-18-5	> 90 mL/kg (Rat)	Not Available	Not Available
2-butoxyethanol 111-76-2	= 470 mg/kg (Rat)	= 2270 mg/kg (Rat) = 220 mg/kg (Rabbit)	= 2.21 mg/L (Rat) 4 h = 450 ppm (Rat) 4 h
monoethanolamine 141-43-5	= 1720 mg/kg (Rat)	= 1 mL/kg (Rabbit) = 1025 mg/kg (Rabbit)	Not Available
sodium xylene sulfonate 1300-72-7	= 7200 mg/kg (Rat)	Not Available	Not Available
sodium hydroxide 1310-73-2	Not Available	= 1350 mg/kg (Rabbit)	Not Available

Carcinogenicity: No components present at 0.1% or greater are listed as to being carcinogens by ACGIH, IARC, NTP or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/Aquatic Plants	Fish	Toxicity to Microorganisms	Crustacea
2-butoxyethanol 111-76-2	Not Available	1490: 96 h Lepomis macrochirus mg/L LC50 static 2950: 96 h Lepomis macrochirus mg/L LC50	Not Available	1698 - 1940: 24 h Daphnia magna mg/L EC50 1000: 48 h Daphnia magna mg/L EC50
monoethanolamine 141-43-5	15: 72 h Desmodosmus subspicatus mg/L EC50	227: 96 h Pimephales promelas mg/L LC50 flow-through 3684: 96 h Brachydanio rerio mg/L LC50 static 300 - 1000: 96 h Lepomis macrochirus mg/L LC50 static 114 - 196: 96 h Oncorhynchus mykiss mg/L LC50 static 200: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	Not Available	65: 48 h Daphnia magna mg/L EC50
sodium hydroxide 1310-73-2	Not Available	45.4: 96 h Oncorhynchus mykiss mg/L LC50 static	Not Available	Not Available

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

Other Adverse Effects: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal of Wastes: This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated Packaging: Dispose of in accordance with federal, state and local regulations.

US EPA Waste Number: D002

14. TRANSPORT INFORMATION

DOT:

UN/ID No: UN 1760

Proper Shipping Name: Corrosive liquids, n.o.s., (contains sodium hydroxide)

Hazard Class: 8

Packing Group: II

Special Provisions: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Check with a trained hazardous materials transportation expert for information specific to your situation.

IMDG:

UN/ID No: UN 1760

Proper Shipping Name: Corrosive liquids, n.o.s., (contains sodium hydroxide)
 Hazard Class: 8
 Packing Group: II

15. REGULATORY INFORMATION

TSCA Status: (Toxic Substance Control Act Section 8(b) Inventory)

All chemical substances in this product are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

SARA 313

This product contains the following listed substances:

2-butoxyethanol

CAS No 111-76-2 applies to R-(OCH₂CH₂)_n-OR', where n = 1, 2, or 3, R=Alkyl C7 or less, or R = Phenyl or Alkyl substituted phenyl, R' = H or Alkyl C7 or less, or OR' consisting of Carboxylic acid ester, Sulfate, Phosphate, Nitrate, or Sulfonate, Chemical Category N230

SARA 311/312 Hazard Categories

Acute Health Hazard:	Yes
Chronic Health Hazard:	Yes
Fire Hazard:	No
Sudden release of pressure hazard:	No
Reactive Hazard:	No

California Proposition 65

This product is not subject to warning requirements under California Proposition 65.

16. OTHER INFORMATION

NFPA	Health Hazards: 3	Flammability: 0	Instability: 0	Special: N/A
HMIS	Health Hazards: 3*	Flammability: 0	Physical Hazards: 0	

Revision Date: 09-Mar-2016
 Reasons for Revision: Revised formula

Disclaimer:

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End of Safety Data Sheet



Spartan

Safety Data Sheet

Spartan Chemical Company, Inc.

Revision Date: 28-Jul-2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name: **DEFOAMER**
Product Number: 3024
Recommended Use: Defoamer
Uses Advised Against: For Industrial and Institutional Use Only

Manufacturer/Supplier: Spartan Chemical Company, Inc.
1110 Spartan Drive
Maumee, Ohio 43537 USA
800-537-8990 (Business hours)
www.spartanchemical.com

24 Hour Emergency Phone Numbers:
Medical Emergency/Information: 888-314-6171
Transportation/Spill/Leak: CHEMTREC 800-424-9300

2. HAZARDS IDENTIFICATION

GHS Classification
Not Classified Not dangerous according to the Globally Harmonized System (GHS)

GHS Label Elements

Signal Word: **No signal word**
Symbols:
Hazard Statements: No hazard statements
Precautionary Statements: Not Applicable
Prevention:
Response:
-Specific Treatment: See Safety Data Sheet Section 4: "FIRST AID MEASURES" for additional information.

Storage: Not Applicable
Disposal: Not Applicable

Hazards Not Otherwise Classified: Not Applicable

Other Information:

- May be harmful if swallowed.
- May cause eye irritation.
- May cause skin irritation.
- Keep out of reach of children.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
water	7732-18-5	60-100
organosiloxane	PROPRIETARY	1-5

Specific chemical identity and/or exact percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

-Eye Contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
-Skin Contact:	Wash with soap and water. If skin irritation occurs: Get medical attention.
-Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison control center or physician if you feel unwell.
-Ingestion:	Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if you feel unwell.
Note to Physicians:	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Product does not support combustion, Use extinguishing agent suitable for type of surrounding fire
Specific Hazards Arising from the Chemical:	Dried product is capable of burning. Combustion products are toxic.
Hazardous Combustion Products:	May include Carbon monoxide Carbon dioxide and other toxic gases or vapors.
Protective Equipment and Precautions for Firefighters:	Wear MSHA/NIOSH approved self-contained breathing apparatus (SCBA) and full protective gear. Cool fire-exposed containers with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
Environmental Precautions:	Do not rinse spill onto the ground, into storm sewers or bodies of water.
Methods for Clean-Up:	Prevent further leakage or spillage if safe to do so. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

7. HANDLING AND STORAGE

Advice on Safe Handling:	Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.
Storage Conditions:	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep from freezing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:	None established.
Engineering Controls:	Provide good general ventilation. If work practices generate dust, fumes, gas, vapors or mists which expose workers to chemicals above the occupational exposure limits, local exhaust ventilation or other engineering controls should be considered.
<u>Personal Protective Equipment</u>	
Eye/Face Protection:	Not required with expected use.
Skin and Body Protection:	Not required with expected use.
Respiratory Protection:	Not required with expected use. If occupational exposure limits are exceeded or respiratory irritation occurs, use of a NIOSH/MSHA approved respirator suitable for the use-conditions and chemicals in Section 3 should be considered.
General Hygiene Considerations:	Wash hands and any exposed skin thoroughly after handling. See 29 CFR 1910.132-138 for further guidance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical State:	Liquid
Color:	White emulsion
Odor:	Bland
pH:	9.0-10.0
Melting Point / Freezing Point:	No information available.
Boiling Point / Boiling Range:	100 °C / 212 °F
Flash Point:	> 100 °C / > 212 °F ASTM D56
Evaporation Rate:	< 1 (Butyl acetate = 1)
Flammability (solid, gas)	No information available.
Upper Flammability Limit:	No information available.
Lower Flammability Limit:	No information available.
Vapor Pressure:	No information available.
Vapor Density:	No information available.
Specific Gravity:	1.00
Solubility(ies):	Miscible in water
Partition Coefficient:	No information available.
Autoignition Temperature:	No information available.
Decomposition Temperature:	No information available.
Viscosity:	No information available.

10. STABILITY AND REACTIVITY

Reactivity:	This material is considered to be non-reactive under normal conditions of use.
Chemical Stability:	Stable under normal conditions.
Possibility of Hazardous Reactions:	Not expected to occur with normal handling and storage.
Conditions to Avoid:	Extremes of temperature and direct sunlight.
Incompatible Materials:	Strong oxidizing agents. Strong acids.
Hazardous Decomposition Products:	May include carbon monoxide, carbon dioxide (CO ₂) and other toxic gases or vapors.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Eyes, Skin, Ingestion, Inhalation.
Symptoms of Exposure:	
-Eye Contact:	Pain and redness.
-Skin Contact:	Drying of the skin.
-Inhalation:	Nasal discomfort and coughing.
-Ingestion:	Pain, nausea, vomiting and diarrhea.
Immediate, Delayed, Chronic Effects	
Product Information:	Data not available or insufficient for classification.

Numerical Measures of Toxicity

The following acute toxicity estimates (ATE) are calculated based on the GHS document.
Data not available or insufficient for classification.

Component Acute Toxicity Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
water 7732-18-5	> 90 mL/kg (Rat)	Not Available	Not Available

Carcinogenicity: No components present at 0.1% or greater are listed as to being carcinogens by ACGIH, IARC, NTP or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

Other Adverse Effects: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal of Wastes: Dispose of in accordance with federal, state and local regulations.
Contaminated Packaging: Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT: Not Regulated
Proper Shipping Name: Non-Hazardous Product
Special Provisions: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Check with a trained hazardous materials transportation expert for information specific to your situation.

IMDG: Not Regulated
Proper Shipping Name: Non-Hazardous Product

15. REGULATORY INFORMATION

TSCA Status: (Toxic Substance Control Act Section 8(b) Inventory)
 All chemical substances in this product are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

SARA 313
 This product does not contain listed substances above the "de minimus" level

SARA 311/312 Hazard Categories

Acute Health Hazard:	Yes
Chronic Health Hazard:	No
Fire Hazard:	No
Sudden release of pressure hazard:	No
Reactive Hazard:	No

California Proposition 65
 This product is not subject to warning requirements under California Proposition 65.

16. OTHER INFORMATION

NFPA	Health Hazards: 1	Flammability: 0	Instability: 0	Special: N/A
HMIS	Health Hazards: 1	Flammability: 0	Physical Hazards: 0	

Revision Date: 28-Jul-2015
Reasons for Revision: Section 14 and 15

Disclaimer:
 The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

Issue Date No data available

Revision Date 26-Mar-2015

Version 1

1. IDENTIFICATION

Product identifier

Product Name

Pure Bright Germicidal Ultra Bleach 1 GAL

Other means of identification

Product UPC

59647-21014

Product Code

11008635041, 11008635042, 11008638431

Synonyms

None

Recommended use of the chemical and restrictions on use

Recommended Use

Disinfectant. Cleaning agent. Chlorine-based bleaching agents.

Uses advised against

No information available

Details of the supplier of the safety data sheet

Manufacturer Address

KIK International LLC
33 Macintosh Blvd.
Concord, Ontario
Canada L4K 4L5
1-800-479-6603

Emergency telephone number

Emergency Telephone

Poison Control Center (Medical) : (866) 366-5048
Chemtel (Transportation) 1-888-255-3924

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1

Label elements

Emergency Overview

Danger

Hazard statements

Causes skin irritation
Causes serious eye damage



Appearance clear, light yellow

Physical state liquid

Odor Chlorine

Precautionary Statements - Prevention

Supplyworks®

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SDS Communication for your recent order



639 2 MB 0.423 E0094X I0709 D3115764193 S2 P4898663 0001:0009



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If you have any questions, please contact Customer Service at 866-412-6726

811213
00003

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician
IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs:
Get medical advice/attention

Precautionary Statements - Storage

Keep out of reach of children. Store in a dry place. Store in a closed container. Protect from sunlight. Store in a well-ventilated place

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

0% of the mixture consists of ingredient(s) of unknown toxicity
Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No.	Weight-%	Trade Secret
Sodium hypochlorite	7681-52-9	5-7	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.
Skin contact Wash skin with soap and water.
Inhalation Remove to fresh air.
Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Acids, Ammonia.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be

provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	Odor	Chlorine
Appearance	clear, light yellow	Odor threshold	No information available
Color	light yellow		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	~12.5	
Melting point/freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	1.07 - 1.09	
Water solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	None
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity
 No data available

Chemical stability
 Stable under recommended storage conditions.

Possibility of Hazardous Reactions
 None under normal processing.

Conditions to avoid
 Incompatible materials. Extremes of temperature and direct sunlight.

Incompatible materials
 Acids, Ammonia.

Hazardous Decomposition Products
 None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Inhalation of vapors in high concentration may cause irritation of respiratory system.
Eye contact	Avoid contact with eyes. May cause burns.
Skin contact	Avoid contact with skin. May cause irritation.
Ingestion	May be harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium hypochlorite 7681-52-9	= 8200 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium hypochlorite 7681-52-9	-	Group 3	-	-

*IARC (International Agency for Research on Cancer)
Not classifiable as a human carcinogen*

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Sodium hypochlorite 7681-52-9	0.095: 24 h Skeletonema costatum mg/L EC50	0.06 - 0.11: 96 h Pimephales promelas mg/L LC50 flow-through 4.5 - 7.6: 96 h Pimephales promelas mg/L LC50 static 0.4 - 0.8: 96 h Lepomis macrochirus mg/L LC50 static 0.28 - 1: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.05 - 0.771: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.03 - 0.19: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 0.18 - 0.22: 96 h Oncorhynchus mykiss mg/L LC50 static	2.1: 96 h Daphnia magna mg/L EC50 0.033 - 0.044: 48 h Daphnia magna mg/L EC50 Static
Sodium hydroxide 1310-73-2	-	45.4: 96 h Oncorhynchus mykiss mg/L LC50 static	-

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container. Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT

Not regulated

IATA

UN/ID no.	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard Class	9
Packing Group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III

IMDG

UN/ID no.	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard Class	9
Packing Group	III
Marine pollutant	This material meets the definition of a marine pollutant
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hypochlorite 7681-52-9	100 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Sodium hypochlorite 7681-52-9	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sodium hypochlorite 7681-52-9	X	X	X
Sodium hydroxide 1310-73-2	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number 70271-13

Difference between SDS and EPA Pesticide label

DANGER: Corrosive. May cause severe skin and eye irritation or chemical burns to broken skin. Causes eye damage. Wear safety glasses and rubber gloves when handling this product. Wash after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Avoid breathing vapors. Vacate poorly ventilated areas as soon as possible. Do not return until strong odors have dissipated.

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 0	Instability 1	Physical and Chemical Properties -
HMIS	Health hazards 2	Flammability 0	Physical hazards 1	Personal protection B

Revision Date 26-Mar-2015

Revision Note
No information available

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1. IDENTIFICATION

Product Name	Comet® Disinfecting Sanitizing Bathroom Cleaner
Product Code(s)	3-20
Product ID:	15154320_PROF_NG
Product Type:	Finished Product - Professional Use Only
Recommended Use	Disinfectant
Restrictions on Use	Do not mix with other cleaning products or chemicals as irritating fumes may be formed.
Manufacturer	Procter & Gamble Professional 2 P&G Plaza Cincinnati, Ohio 45202 Procter & Gamble Inc. P.O. Box 355, Station A Toronto, ON M5W 1C5 1-800-332-7787
E-mail Address	pgsds.im@pg.com
Emergency Telephone	Transportation (24 HR) CHEMTREC - 1-800-424-9300 (U.S./ Canada) or 1-703-527-3887 Mexico toll free in country: 800-681-9531

2. HAZARD IDENTIFICATION

This product is classified under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:.

<u>Hazard Category</u>	
Acute toxicity - Oral	Category 4
Eye Damage / Irritation	Category 2B
Corrosive to metals	Category 1
Signal Word	WARNING
Hazard Statements	Causes eye irritation Harmful if swallowed May be corrosive to metals
Hazard pictograms	

End of Safety Data Sheet



Precautionary Statements - Prevention

Wash hands thoroughly after handling
 Do not eat, drink or smoke when using this product
 Keep only in original container
 Do not mix with other cleaning products or chemicals as irritating fumes may be formed

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 IF SWALLOWED:
 Rinse with plenty of water
 Drink 1 or 2 glasses of water
 Call a POISON CENTER or doctor/physician if you feel unwell
 Absorb spillage to prevent material damage

Precautionary Statements - Storage

Store in corrosive resistant container

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local regulation

Hazards not otherwise classified (HNOC)

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

Chemical Name	Synonyms	Trade Secret	CAS-No	Weight %
Dipropylene Glycol Butoxy Ether	-	No	29911-28-2	5 - 10
Citric acid	-	No	77-92-9	1 - 5
1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-coco acyl derivs., inner salts	-	No	68139-30-0	1 - 5
Benzenesulfonic acid, (1-methylethyl)-, sodium salt (1:1)	-	No	28348-53-0	1 - 5
Alcohols, C9-11, ethoxylated	-	No	68439-46-3	1 - 5

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact Rinse with plenty of water. Get medical attention immediately if irritation persists.

Skin contact Rinse with plenty of water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Most important symptoms/effects, acute and delayed None under normal use conditions.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Dry chemical, CO ₂ , alcohol-resistant foam or water spray.
Unsuitable Extinguishing Media	None.
Special hazard	None known.
Special protective equipment for fire-fighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Specific hazards arising from the chemical	None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment. Do not get in eyes, on skin, or on clothing.

Advice for emergency responders Use personal protective equipment as required.

Methods and materials for containment and cleaning up

Methods for containment Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store in corrosive resistant container.

Incompatible products Do not mix with other cleaning products or chemicals as irritating fumes may be formed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines No exposure limits noted for ingredient(s).

Exposure controls

Engineering Measures

Distribution, Workplace and Household Settings:
Ensure adequate ventilation

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction

Personal Protective Equipment

Eye Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Use appropriate eye protection

Hand Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Protective gloves

Skin and Body Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Wear suitable protective clothing

Respiratory Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
In case of insufficient ventilation wear suitable respiratory equipment

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State @20°C	liquid
Appearance	clear
Odor	Scented
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Note</u>
pH value	3	
Melting/freezing point	No information available	
Boiling point/boiling range	No information available	
Flash point	> 93.3 °C / > 200 °F	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limit	No information available	
Lower Flammability Limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Relative density	1.042	

Water solubility 100%
 Solubility in other solvents No information available
 Partition coefficient: n-octanol/water No information available
 Autoignition temperature No information available
 Decomposition temperature No information available
 Viscosity of Product <10 cps

VOC Content (%) Products comply with US state and federal regulations for VOC content in consumer products.

10. STABILITY AND REACTIVITY

Reactivity None under normal use conditions.
Stability Stable under normal conditions.
Hazardous polymerization Hazardous polymerization does not occur.
Hazardous Reactions None under normal processing.
Conditions to Avoid None under normal processing.
Materials to avoid Do not mix with other cleaning products or chemicals as irritating fumes may be formed.
Hazardous Decomposition Products None under normal use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Inhalation No known effect.
Skin contact No known effect.
Ingestion May be harmful if swallowed.
Eye contact Irritating to eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity May be harmful if swallowed.
Skin corrosion/irritation No known effect.
Serious eye damage/eye irritation Irritating to eyes.
Skin sensitization No known effect.
Respiratory sensitization No known effect.
Germ cell mutagenicity No known effect.
Neurological Effects No known effect.
Reproductive toxicity No known effect.
Developmental toxicity No known effect.
Teratogenicity No known effect.
STOT - single exposure No known effect.
STOT - repeated exposure No known effect.
Target Organ Effects No known effect.
Aspiration hazard No known effect.
Carcinogenicity No known effect.

Component Information

Chemical Name	CAS-No	LD50 Oral	LD50 Dermal	LC50 Inhalation
Dipropylene Glycol Butoxy Ether	29911-28-2	2610 mg/kg bw (Similar to OECD 401; standard acute method; rat)	> 2000 mg/kg bw (OECD 402; standard acute method; rat)	> 2.04 mg/L air (OECD 403; standard acute method; rat)
Citric acid	77-92-9	5400 mg/kg bw (Similar to OECD 401; standard acute method; mouse)	> 2000 mg/kg bw (OECD 402, standard acute method; rat)	-

Benzenesulfonic acid, (1-methylethyl)-, sodium salt (1:1)	28348-53-0	5160.00 mg/kg (rat)	-	-
Alcohols, C9-11, ethoxylated	68439-46-3	1600.00 mg/kg (rat)	-	-

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not expected to be hazardous to the environment.

Persistence and degradability	No information available.
Bioaccumulative potential	No information available.
Mobility	No information available.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste from Residues / Unused Products	Products covered by this MSDS, in their original form, when disposed as waste, are corrosive hazardous waste, D002, according to Federal RCRA regulations (40 CFR 261). Disposal should be in accordance with local, state and federal regulations.
Contaminated packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.
California Hazardous Waste Codes (non-household setting)	331

14. TRANSPORT INFORMATION

DOT

UN no	UN1760
UN Proper shipping name	Corrosive liquids, n.o.s.
Description	UN1760, Corrosive liquid, n.o.s , (citric acid), 8, III , Ltd. Qty.
Hazard Class	8
Packing Group	III

IMDG

UN Number	UN1760
UN Proper shipping name	Corrosive liquid, n.o.s.
Description	UN1760, Corrosive liquid, n.o.s , (citric acid), 8, III , Ltd. Qty.
Transport hazard class(es)	8
Packing Group	III

IATA

UN no	UN1760
UN Proper shipping name	Corrosive liquid, n.o.s.
Description	UN1760, Corrosive liquid, n.o.s, (citric acid), 8, III , Ltd. Qty.
Hazard Class	8
Packing Group	III

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

California Proposition 65

This product is not subject to warning labeling under California Proposition 65.

U.S. State Regulations (RTK)

This product does not contain any substances regulated by state right-to-know regulations

International Inventories

United States

All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

Canada

This product is in compliance with CEPA for import by P&G.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

CEPA - Canadian Environmental Protection Act

FIFRA

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

EPA Registration number: 3573-54

CAUTION

May be harmful if swallowed

Causes eye irritation

16. OTHER INFORMATION

HMIS Ratings

Health hazard	3
Flammability	1
Physical hazard	0

Health hazard 3
Flammability 1
Instability 0

Issuing Date: 12-Feb-2015
Revision Date: 07-Apr-2015

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

SAFETY DATA SHEET



Issuing Date: 23-Feb-2015

Revision Date: 23-Feb-2015

Version 1

1. IDENTIFICATION

Product Name	Febreze Fabric Refresher - Free
Product ID:	92284730_RET_NG
Product Type:	Finished Product - Consumer (Retail) Use Only
Recommended Use	Fabric Refresher
Restrictions on Use	Safe to use around dogs and cats. As with other care products, not for use around birds.
Synonyms	Febreze Fabric Refresher Allergen Reducer - Unscented (96391139_RET_NG) Febreze Fabric Refresher - Wild Berries & Honey (99764733_RET_NG) Febreze Fabric Refresher - Gain Apple Mango Tango (99764733_A_RET_NG) Febreze Fabric Refresher - Downy April Fresh (99765267_RET_NG)
Manufacturer	PROCTER & GAMBLE - Fabric and Home Care Division. Ivorydale Technical Centre. 5289 Spring Grove Avenue, Cincinnati, Ohio 45217-1087 USA
E-mail Address	pgsds.im@pg.com
Emergency Telephone	Transportation (24 HR) CHEMTREC - 1-800-424-9300 (U.S./ Canada) or 1-703-527-3887 Mexico toll free in country: 800-681-9531

2. HAZARD IDENTIFICATION

"Consumer Products", as defined by the US Consumer Product Safety Act and which are used as intended (typical consumer duration and frequency), are exempt from the OSHA Hazard Communication Standard (29 CFR 1910.1200). This SDS is being provided as a courtesy to help assist in the safe handling and proper use of the product.

This product is classified under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:

Not Classified.

Hazard Statements	None
Hazard pictograms	None
Precautionary Statements - Prevention	None
Precautionary Statements - Response	None
Precautionary Statements - Storage	None

Supplyworks®

PO Box 2317
Jacksonville FL 32203-9956
SDS Communication for your recent order



958 1 MB 0.424 E0233X I0739 D3437385561 S2 P5185995 0001:0004



YAMHIL CARLTON INTERMEDIATE
310 E MAIN ST
YAMHILL OR 97148-8641

03/16/18

Enclosed, please find Safety Data Sheets for your recent orders: 3470582
You can find a complete library of more than 11,000 data sheets at our web site www.supplyworks.com
If you have any questions, please contact Customer Service at 866-412-6726

811213
00003

Precautionary Statements - Disposal None

Hazards not otherwise classified (HNOC) None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

Chemical Name	Synonyms	Trade Secret	CAS-No	Weight %
Ethanol	-	No	64-17-5	1 - 5

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact Rinse with plenty of water. Get medical attention immediately if irritation persists.

Skin contact Rinse with plenty of water. Get medical attention if irritation develops and persists.

Ingestion Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Most important symptoms/effects, acute and delayed None under normal use conditions.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Dry chemical, CO₂, alcohol-resistant foam or water spray. Dry chemical. Alcohol-resistant foam.

Unsuitable Extinguishing Media None.

Special hazard None known.

Special protective equipment for fire-fighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Specific hazards arising from the chemical None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment. Do not get in eyes, on skin, or on clothing.

Advice for emergency responders Use personal protective equipment as required.

Environmental precautions Keep out of waterways. Do not discharge product into natural waters without pre-treatment or adequate dilution.

Methods and materials for containment and cleaning up

Methods for containment Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	CAS-No	ACGIH TLV	OSHA PEL	Mexico PEL
Ethanol	64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	Mexico: TWA 1000 ppm Mexico: TWA 1900 mg/m ³

Chemical Name	CAS-No	Alberta	Quebec	Ontario TWAEV	British Columbia
Ethanol	64-17-5	TWA: 1000 ppm TWA: 1880 mg/m ³	TWA: 1000 ppm TWA: 1880 mg/m ³	STEL: 1000 ppm	STEL: 1000 ppm

No relevant exposure guidelines for other ingredients

Exposure controls

Engineering Measures **Distribution, Workplace and Household Settings:**
Ensure adequate ventilation

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction

Personal Protective Equipment

Eye Protection **Distribution, Workplace and Household Settings:**
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Use appropriate eye protection

Hand Protection	<p>Distribution, Workplace and Household Settings: No special protective equipment required</p> <p>Product Manufacturing Plant (needed at Product-Producing Plant ONLY): Protective gloves</p>
Skin and Body Protection	<p>Distribution, Workplace and Household Settings: No special protective equipment required</p> <p>Product Manufacturing Plant (needed at Product-Producing Plant ONLY): Wear suitable protective clothing</p>
Respiratory Protection	<p>Distribution, Workplace and Household Settings: No special protective equipment required</p> <p>Product Manufacturing Plant (needed at Product-Producing Plant ONLY): In case of insufficient ventilation wear suitable respiratory equipment</p>

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State @20°C Appearance Odor Odor threshold	liquid clear Perfume No information available	
<u>Property</u> pH value Melting/freezing point Boiling point/boiling range Flash point	<u>Values</u> 6.0 - 8.4 No information available 100 °C / 212 °F 57.8 - 70.5 °C / 136 - 159 °F	<u>Note</u> Product is an aqueous solution containing <= 24% alcohol and > 50% water
Evaporation rate Flammability (solid, gas) Flammability Limits in Air Upper flammability limit Lower Flammability Limit Vapor pressure Vapor density Relative density Water solubility Solubility in other solvents Partition coefficient: n-octanol/water Autoignition temperature Decomposition temperature Viscosity of Product	No information available No information available No information available No information available No information available No information available 1.0 - 1.4 soluble No information available No information available No information available No information available No information available	
VOC Content (%)	Products comply with US state and federal regulations for VOC content in consumer products.	

10. STABILITY AND REACTIVITY

Reactivity	None under normal use conditions.
Stability	Stable under normal conditions.
Hazardous polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.
Conditions to Avoid	None under normal processing.

Materials to avoid None in particular.

Hazardous Decomposition Products None under normal use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Inhalation	No known effect.
Skin contact	No known effect.
Ingestion	No known effect.
Eye contact	No known effect.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity	No known effect.
Skin corrosion/irritation	No known effect.
Serious eye damage/eye irritation	No known effect.
Skin sensitization	No known effect.
Respiratory sensitization	No known effect.
Germ cell mutagenicity	No known effect.
Neurological Effects	No known effect.
Reproductive toxicity	No known effect.
Developmental toxicity	No known effect.
Teratogenicity	No known effect.
STOT - single exposure	No known effect.
STOT - repeated exposure	No known effect.
Target Organ Effects	No known effect.
Aspiration hazard	No known effect.
Carcinogenicity	No known effect.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not expected to be hazardous to the environment.

Persistence and degradability	No information available.
Bioaccumulative potential	No information available.
Mobility	No information available.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste from Residues / Unused Products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Codes 331
(non-household setting)

14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated
<u>IMDG</u>	Not regulated
<u>IATA</u>	Not regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	CAS-No	Hazardous Substances RQs	Extremely Hazardous Substances RQs	CERCLA/SARA 302 TPQ
Maleic acid (C = 25 %: Xn; R22-36/37/38-4320 % = C <25 %: Xi; R36/37/38-430,1 % = C <20 %: Xi; R43)	110-16-7	5000 lb	-	

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CAS-No	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Maleic acid (C = 25 %: Xn; R22-36/37/38-4320 % = C <25 %: Xi; R36/37/38-430,1 % = C <20 %: Xi; R43)	110-16-7	5000 lb	-	-	X

California Proposition 65

This product is not subject to warning labeling under California Proposition 65.

U.S. State Regulations (RTK)

Chemical Name	CAS-No	New Jersey
Ethanol	64-17-5	X

Chemical Name	CAS-No	Massachusetts
Ethanol	64-17-5	X

Chemical Name	CAS-No	Pennsylvania
Ethanol	64-17-5	X
2,2'-Oxybisethanol	111-46-6	X
Maleic acid (C = 25 %: Xn; R22-36/37/38-4320 % = C <25 %: Xi; R36/37/38-430,1 % = C <20 %:	110-16-7	X

Xi; R43)		
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International Inventories**United States**

All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

Canada

This product is in compliance with CEPA for import by P&G.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

CEPA - Canadian Environmental Protection Act

16. OTHER INFORMATION

Issuing Date: 23-Feb-2015

Revision Date: 23-Feb-2015

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

1. IDENTIFICATION

Product Name	Comet® Deodorizing Cleanser with Chlorinol®
Product Code(s)	3-10
Product ID:	15885959_PROF_NG
Product Type:	Finished Product - Professional Use Only
Recommended Use	Hard Surface Cleaner
Restrictions on Use	Do not mix with other cleaning products or chemicals as irritating fumes may be formed.
Manufacturer	Procter & Gamble Professional 2 P&G Plaza Cincinnati, Ohio 45202 Procter & Gamble Inc. P.O. Box 355, Station A Toronto, ON M5W 1C5 1-800-332-7787
E-mail Address	pgsds.im@pg.com
Emergency Telephone	Transportation (24 HR) CHEMTREC - 1-800-424-9300 (U.S./ Canada) or 1-703-527-3887 Mexico toll free in country: 800-681-9531

2. HAZARD IDENTIFICATION

This product is classified under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:.

Hazard Category	
Eye Damage / Irritation	Category 2B
Signal Word	WARNING
Hazard Statements	Causes eye irritation
Hazard pictograms	None
Precautionary Statements - Prevention	Wash hands thoroughly after handling Do not mix with other cleaning products or chemicals as irritating fumes may be formed
Precautionary Statements - Response	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention IF SWALLOWED: Drink 1 or 2 glasses of water

Precautionary Statements - Storage None

Precautionary Statements - Disposal None

Hazards not otherwise classified (HNOC) None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

Chemical Name	Synonyms	Trade Secret	CAS-No	Weight %
Limestone	-	No	1317-65-3	40 - 100
Sodium carbonate	-	No	497-19-8	5 - 10
Calcium hydroxide (Ca(OH) ₂)	-	No	1305-62-0	1 - 5
Trosclosene sodium, dihydrate	-	No	51580-86-0	1 - 5
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	-	No	68081-81-2	1 - 5

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact Rinse with plenty of water. Get medical attention immediately if irritation persists.

Skin contact Rinse with plenty of water. Get medical attention if irritation develops and persists.

Ingestion Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

Inhalation Move to fresh air. If symptoms persist, call a physician.

Most important symptoms/effects, acute and delayed None under normal use conditions.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Dry chemical, CO₂, alcohol-resistant foam or water spray.

Unsuitable Extinguishing Media None.

Special hazard None known.

Special protective equipment for fire-fighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Specific hazards arising from the chemical None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment. Do not get in eyes, on skin, or on clothing.

Advice for emergency responders Use personal protective equipment as required.

Methods and materials for containment and cleaning up

Methods for containment Prevent dust cloud. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Dispose of in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products Do not mix with other cleaning products or chemicals as irritating fumes may be formed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	CAS-No	ACGIH TLV	OSHA PEL	Mexico PEL
Limestone	1317-65-3		TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	Mexico: TWA 10 mg/m ³ Mexico: STEL 20 mg/m ³
Calcium hydroxide (Ca(OH) ₂)	1305-62-0	TWA: 5 mg/m ³	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ not in effect as a result of reconsideration	Mexico: TWA 5 mg/m ³

Chemical Name	CAS-No	Alberta	Quebec	Ontario TWA EV	British Columbia
Limestone	1317-65-3	TWA: 10 mg/m ³	TWA: 10 mg/m ³		TWA: 10 mg/m ³ TWA: 3 mg/m ³ STEL: 20 mg/m ³
Calcium hydroxide (Ca(OH) ₂)	1305-62-0	TWA: 5 mg/m ³	TWA: 5 mg/m ³	TWA: 5 mg/m ³	TWA: 5 mg/m ³

No relevant exposure guidelines for other ingredients

Exposure controls

Engineering Measures

Distribution, Workplace and Household Settings:
Ensure adequate ventilation

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction

Personal Protective Equipment

Eye Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Use appropriate eye protection

Hand Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Protective gloves

Skin and Body Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Wear suitable protective clothing

Respiratory Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
In case of insufficient ventilation wear suitable respiratory equipment

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State @20°C	solid
Appearance	white
Odor	Pine
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Note</u>
pH value	12.3	(as 1% solution)
Melting/freezing point	No information available	
Boiling point/boiling range	No information available	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limit	No information available	
Lower Flammability Limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Relative density	No information available	
Water solubility	15%	
Solubility in other solvents	No information available	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity of Product	No information available	

VOC Content (%) Products comply with US state and federal regulations for VOC content in consumer products.

10. STABILITY AND REACTIVITY

Reactivity None under normal use conditions.
 Stability Stable under normal conditions.
 Hazardous polymerization Hazardous polymerization does not occur.
 Hazardous Reactions None under normal processing.
 Conditions to Avoid None under normal processing.
 Materials to avoid Do not mix with other cleaning products or chemicals as irritating fumes may be formed.
 Hazardous Decomposition Products None under normal use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Inhalation No known effect.
 Skin contact No known effect.
 Ingestion No known effect.
 Eye contact Irritating to eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity No known effect.
 Skin corrosion/irritation No known effect.
 Serious eye damage/eye irritation Irritating to eyes.
 Skin sensitization No known effect.
 Respiratory sensitization No known effect.
 Germ cell mutagenicity No known effect.
 Neurological Effects No known effect.
 Reproductive toxicity No known effect.
 Developmental toxicity No known effect.
 Teratogenicity No known effect.
 STOT - single exposure No known effect.
 STOT - repeated exposure No known effect.
 Target Organ Effects No known effect.
 Aspiration hazard No known effect.
 Carcinogenicity No known effect.

Component Information

Chemical Name	CAS-No	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium carbonate	497-19-8	2800 mg/kg bw (Guideline not indicated; rat)	> 2000 mg/kg bw (EPA 16 CFR 1500.40; rabbit)	-
Calcium hydroxide (Ca(OH) ₂)	1305-62-0	> 2000 mg/kg bw (OECD 425; rat)	> 2500 mg/kg bw (EU Method B.3 and OECD 402; rabbit)	-
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	1090.00 mg/kg (rat)	-	-

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not expected to be hazardous to the environment.

Persistence and degradability	No information available.
Bioaccumulative potential	No information available.
Mobility	No information available.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste from Residues / Unused Products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.
California Hazardous Waste Codes (non-household setting)	331

14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated
<u>IMDG</u>	Not regulated
<u>IATA</u>	Not regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

California Proposition 65

This product is not subject to warning labeling under California Proposition 65.

U.S. State Regulations (RTK)

Chemical Name	CAS-No	New Jersey
Limestone	1317-65-3	X
Calcium hydroxide (Ca(OH) ₂)	1305-62-0	X
Trosclosene sodium, dihydrate	51580-86-0	X

Chemical Name	CAS-No	Massachusetts
Limestone	1317-65-3	X
Calcium hydroxide (Ca(OH) ₂)	1305-62-0	X
Trosclosene sodium, dihydrate	51580-86-0	X

Chemical Name	CAS-No	Pennsylvania
Limestone	1317-65-3	X
Calcium hydroxide (Ca(OH) ₂)	1305-62-0	X
Trosclosene sodium, dihydrate	51580-86-0	X

International Inventories

United States

All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

Canada

This product is in compliance with CEPA for import by P&G.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

CEPA - Canadian Environmental Protection Act

16. OTHER INFORMATION

HMIS Ratings

Health hazard 2
 Flammability 0
 Physical hazard 0

NFPA Ratings

Health hazard 2
 Flammability 0
 Instability 0

Issuing Date: 09-Jan-2015

Revision Date: 07-Apr-2015

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

SAFETY DATA SHEET



Issuing Date: 09-Apr-2015

Revision Date: 10-Apr-2015

Version 1

1. IDENTIFICATION

Product Name Mr. Clean Magic Eraser - Kitchen Scrubber

Product ID: 99619850_RET_NG

Product Type: Finished Product - Consumer (Retail) Use Only

Recommended Use Hard Surface Cleaner

Restrictions on Use Use only as directed on label.

Manufacturer PROCTER & GAMBLE - Fabric and Home Care Division
Ivorydale Technical Centre
5289 Spring Grove Avenue
Cincinnati, Ohio 45217-1087 USA

Procter & Gamble Inc.
P.O. Box 355, Station A
Toronto, ON M5W 1C5
1-800-331-3774

E-mail Address pgsds.im@pg.com

Emergency Telephone Transportation (24 HR)
CHEMTREC - 1-800-424-9300
(U.S./ Canada) or 1-703-527-3887
Mexico toll free in country: 800-681-9531

2. HAZARD IDENTIFICATION

"Consumer Products", as defined by the US Consumer Product Safety Act and which are used as intended (typical consumer duration and frequency), are exempt from the OSHA Hazard Communication Standard (29 CFR 1910.1200). This SDS is being provided as a courtesy to help assist in the safe handling and proper use of the product.

This product is classified under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:.

Not Classified.

Signal Word None

Hazard Statements None

Hazard pictograms None

Precautionary Statements - Prevention None

Precautionary Statements - Response None

Precautionary Statements - Storage None

Precautionary Statements - Disposal None

Hazards not otherwise classified (HNOC) None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

Chemical Name	Synonyms	Trade Secret	CAS-No	Weight %
Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether	-	No	166736-08-9	1 - 5
Limonene	-	No	5989-27-5	0.1 - 1.0

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact	Rinse with plenty of water. Get medical attention immediately if irritation persists.
Skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
Ingestion	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.
Inhalation	Move to fresh air. If symptoms persist, call a physician.
Most important symptoms/effects, acute and delayed	None under normal use conditions.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Dry chemical, CO ₂ , alcohol-resistant foam or water spray.
Unsuitable Extinguishing Media	None.
Special hazard	None known.
Special protective equipment for fire-fighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Specific hazards arising from the chemical	None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment. Do not get in eyes, on skin, or on clothing.

Advice for emergency responders Use personal protective equipment as required.

Methods and materials for containment and cleaning up

Methods for containment Prevent dust cloud. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Dispose of in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines No exposure limits noted for ingredient(s).

Exposure controls

Engineering Measures **Distribution, Workplace and Household Settings:**
Ensure adequate ventilation

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction

Personal Protective Equipment

Eye Protection **Distribution, Workplace and Household Settings:**
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Use appropriate eye protection

Hand Protection **Distribution, Workplace and Household Settings:**
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Protective gloves

Skin and Body Protection **Distribution, Workplace and Household Settings:**
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):

Wear suitable protective clothing

Respiratory Protection**Distribution, Workplace and Household Settings:**

No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):

In case of insufficient ventilation wear suitable respiratory equipment

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State @20°C	solid	
Appearance	white blue	
Odor	Scented	
Odor threshold	No information available	
<u>Property</u>	<u>Values</u>	<u>Note</u>
pH value	No information available	
Melting/freezing point	No information available	
Boiling point/boiling range	No information available	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limit	No information available	
Lower Flammability Limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Relative density	No information available	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity of Product	No information available	
VOC Content (%)	Products comply with US state and federal regulations for VOC content in consumer products.	

10. STABILITY AND REACTIVITY

Reactivity	None under normal use conditions.
Stability	Stable under normal conditions.
Hazardous polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.
Conditions to Avoid	None under normal processing.
Materials to avoid	None in particular.
Hazardous Decomposition Products	None under normal use.

11. TOXICOLOGICAL INFORMATIONProduct Information

Information on likely routes of exposure

Inhalation	No known effect.
Skin contact	No known effect.
Ingestion	No known effect.
Eye contact	No known effect.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity	No known effect.
Skin corrosion/irritation	No known effect.
Serious eye damage/eye irritation	No known effect.
Skin sensitization	No known effect.
Respiratory sensitization	No known effect.
Germ cell mutagenicity	No known effect.
Neurological Effects	No known effect.
Reproductive toxicity	No known effect.
Developmental toxicity	No known effect.
Teratogenicity	No known effect.
STOT - single exposure	No known effect.
STOT - repeated exposure	No known effect.
Target Organ Effects	No known effect.
Aspiration hazard	No known effect.
Carcinogenicity	No known effect.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not expected to be hazardous to the environment.

Persistence and degradability	No information available.
Bioaccumulative potential	No information available.
Mobility	No information available.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste from Residues / Unused Products Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Codes (non-household setting) 331

14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated
<u>IMDG</u>	Not regulated
<u>IATA</u>	Not regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

California Proposition 65

This product is not subject to warning labeling under California Proposition 65.

U.S. State Regulations (RTK)

This product does not contain any substances regulated by state right-to-know regulations

International Inventories**United States**

All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

Canada

This product is in compliance with CEPA for import by P&G.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

CEPA - Canadian Environmental Protection Act

16. OTHER INFORMATION

Issuing Date: 09-Apr-2015

Revision Date: 10-Apr-2015

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

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SAFETY DATA SHEET

MELT OFF

Revision date January 30th, 2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier	MELT-OFF
Recommended use	Ice Melter
Manufactured by:	CP Industries, LLC 560 North 500 West Salt Lake City, UT 84116 (800) 453-4931
Emergency Contact # (24 Hour)	InfoTrac (800) 535-5053

2. HAZARDOUS IDENTIFICATION

Classification of the substance or mixture	Not a hazardous substance
Hazard Statements	None
GHS label elements, including precautionary statements	Signal Word: None
Hazards not otherwise classified (HNOC)	None

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Substance(s) Description</u>	<u>CAS#</u>
Sodium Chloride	7647-14-5
(Proprietary Inhibitor Package)	N/A

No ingredients are hazardous according to OSHA criteria.
No ingredients No components need to be disclosed according to applicable regulations.

4. FIRST AID MEASURES

Inhalation First Aid	Inhalation is unlikely; however, if it does occur, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, administer oxygen. Seek medical attention.
Skin Contact First Aid	Wash with soap and plenty of water.
Eye Contact First Aid	Flush eyes with water.
Ingestion First Aid	Never give anything by mouth to an unconscious person. Seek medical attention.
Most important symptoms and effects, both acute and delayed	The most important known symptoms and effects are described in the labeling.



MELT OFF

Revision date January 30th, 2015

Indication of any immediate medical attention and special treatment needed No data available.

5. FIRE FIGHTING MEASURES

Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special Hazards from mixture Hydrogen Chloride gas, Sodium Oxides

Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary/available.

Further information No data available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid breathing vapors, mist or gas.

Protective equipment and emergency procedures For personal protection see Section 8.

Environmental precautions Avoid large concentrations of product in a confined area.

Materials for containment and clean up Broom and a dustpan or shovel

Methods for cleanup containment Sweep up and keep in suitable, closed containers for disposal.

Reference to other sections See Section 13 for disposal procedures

7. HANDLING AND STORAGE

Precautions for safe handling Wear protective equipment when handling this product to avoid eye and skin contact. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities Storage containers should be stored in a cool, dry and well-ventilated area away from strong oxidizing agents.

Specific end use(s) Apart from the uses stated in Section 1, no other specific uses are stipulated.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters Contains no substances with occupational exposure limit value



SAFETY DATA SHEET

MELT OFF

Revision date January 30th, 2015

Personal Protective Equipment (PPE)

Respiratory Protection

Dust mask if dust is excessive.

Skin Protection

Gloves should be worn when excessive skin contact cannot be avoided.

Eye Protection

Eye Protection is recommended in all industrial work places.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form: Solid, Crystal

Odor

Color: Blue Crystalline

Odor Threshold

None or slight vinegar

pH

No data available

Melting/Freezing point

8-9 in 1% water

Initial boiling point

Melting point/range: 801° C (1,474° F)

Flash point

1,413° C (2,575° F)

Evaporation rate

No data available

Flammability (solid, gas)

No data available

Explosive limits

No data available

Vapor pressure

No data available

Vapor density

1.33 hPa (1.00 mmHg) at 865° C (1, 589° F)

Relative density

No data available

Water solubility

2.1650 g/cm³

Partition coefficient n-octanol/water

soluble

Auto-ignition temperature

No data available

Decomposition temperature

No data available

Viscosity

No data available

Explosive properties

No data available

Oxidizing properties

No data available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

No data available

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see Section 5



MELT OFF

Revision date January 30th, 2015

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Although no specific exposure limit has been established for this product OSHA and ACGIH have established limits for nuisance dust:	OSHA PEL/TWA Total 15 Mg/M3; Respirable 5 Mg/M3; 8-Hour TWA ACGIH TLV/TWA Total 10 Mg/M3; 8 Hour TWA
Eye Contact	Mild irritation.
Inhalation	Nuisance dust can be irritating to nose, throat and lungs
Skin Contact	Prolonged continual exposure can be irritating.
Ingestion	Ingestion may cause gastrointestinal irritation.
Chronic	No evidence of adverse effects from available data information.

12. ECOLOGICAL INFORMATION

Toxicity	No data available
Bioaccumulative potential	No data available
Persistence and degradability	No data available
Mobility in soil	No data available
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required
Other adverse effects	No data available

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods Product	Offer surplus and non-recyclable solution to a licensed disposal company.
Contaminated packaging	Containers of this material may be hazardous when emptied since emptied containers retain product residues (vapor, liquid, and/or solid). All hazard precautions given in the data sheet must be observed. Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

15. REGULATORY INFORMATION

OSHA Category	Not regulated
SARA 313 Supplier Notification	Not reportable

All Ingredients are Listed on the TSCA Inventory



SAFETY DATA SHEET

MELT OFF

Revision date January 30th, 2015

16. OTHER INFORMATION

Special Precautions or Other Comments: The information accumulated herein is believed to be accurate but is not warranted to be regardless of whom it originates with. Recipients are advised to confirm prior to need that the information is current, applicable, and suitable to their circumstances.

1. IDENTIFICATION

Product Name Spic and Span® Disinfecting All-Purpose Spray and Glass Cleaner - Concentrated

Product Code(s) 3-05

Product ID: 92041835_PROF_NG

Product Type: Finished Product - Professional Use Only

Recommended Use Disinfectant

Restrictions on Use Use only as directed on label.

Manufacturer Procter & Gamble Professional
2 P&G Plaza
Cincinnati, Ohio 45202

Procter & Gamble Inc.
P.O. Box 355, Station A
Toronto, ON M5W 1C5

1-800-332-7787

E-mail Address pgsds.im@pg.com

Emergency Telephone Transportation (24 HR)
CHEMTREC - 1-800-424-9300
(U.S./ Canada) or 1-703-527-3887
Mexico toll free in country: 800-681-9531

2. HAZARD IDENTIFICATION

This product is classified under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:.

Hazard Category

Skin corrosion/irritation Category 1
Eye Damage / Irritation Category 1
Flammable Liquids Category 4

Signal Word DANGER

Hazard Statements Causes severe skin burns and eye damage
Combustible liquid

Hazard pictograms



Precautionary Statements - Prevention	Do not breathe mist Wash hands thoroughly after handling Wear protective gloves and eye protection Use with ventilation. Keep away from heat/sparks/open flames/hot surfaces. — No smoking Keep container tightly closed
Precautionary Statements - Response	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor/physician IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Drink 1 or 2 glasses of water IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing In case of fire: Use water, CO2, dry chemical, or foam for extinction
Precautionary Statements - Storage	Store in a well-ventilated place. Keep cool
Precautionary Statements - Disposal	Dispose of contents/container in accordance with local regulation
Hazards not otherwise classified (HNOC)	None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

Chemical Name	Synonyms	Trade Secret	CAS-No	Weight %
2-(2-Butoxyethoxy ethanol) Diethylene glycol monobutyl ether	-	No	112-34-5	10 - 15
2-Hexyloxyethanol	-	No	112-25-4	5 - 10
1-Aminopropan-2-ol	-	No	78-96-6	5 - 10
D-Glucopyranose, oligomeric, decyl octyl glycosides	-	No	68515-73-1	1 - 5

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact	Rinse with plenty of water. Call a physician immediately.
Skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
Ingestion	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.
Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician or poison control center immediately.
Most important symptoms/effects, acute and delayed	None under normal use conditions.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media In case of fire: Use water, CO2, dry chemical, or foam for extinction.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

Special hazard Fumes may catch fire.

Special protective equipment for fire-fighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Specific hazards arising from the chemical None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment. Do not get in eyes, on skin, or on clothing.

Advice for emergency responders Use personal protective equipment as required.

Methods and materials for containment and cleaning up

Methods for containment Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Keep away from open flames, hot surfaces and sources of ignition. Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a cool/low-temperature, well-ventilated, dry place away from heat and ignition sources.

Incompatible products None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	CAS-No	ACGIH TLV	OSHA PEL	Mexico PEL
2-(2-Butoxyethoxy ethanol) Diethylene glycol monobutyl ether	112-34-5	TWA: 10 ppm inhalable fraction and vapor		

No relevant exposure guidelines for other ingredients

Exposure controls

Engineering Measures

Distribution, Workplace and Household Settings:
Ensure adequate ventilation

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction

Personal Protective Equipment

Eye Protection

Distribution, Workplace and Household Settings:
Requires Eye Protection

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Safety glasses with side-shields
If splashes are likely to occur, wear:
Tightly fitting safety goggles

Hand Protection

Distribution, Workplace and Household Settings:
Protective gloves

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Protective gloves

Skin and Body Protection

Distribution, Workplace and Household Settings:
Wear suitable protective clothing

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Wear suitable protective clothing

Respiratory Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
In case of insufficient ventilation wear suitable respiratory equipment

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State @20°C	liquid
Appearance	blue
Odor	Scented
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Note</u>
pH value	10.4 - 11.2	
Melting/freezing point	No information available	
Boiling point/boiling range	No information available	
Flash point	72.8 °C / 163 °F	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limit	No information available	
Lower Flammability Limit	No information available	
Vapor pressure	No information available	

Vapor density No information available
 Relative density 1.00
 Water solubility 100%
 Solubility in other solvents No information available
 Partition coefficient: n-octanol/water No information available
 Autoignition temperature No information available
 Decomposition temperature No information available
 Viscosity of Product < 10 cps

VOC Content (%) Products comply with US state and federal regulations for VOC content in consumer products.

10. STABILITY AND REACTIVITY

Reactivity None under normal use conditions.
 Stability Stable under normal conditions.
 Hazardous polymerization Hazardous polymerization does not occur.
 Hazardous Reactions None under normal processing.
 Conditions to Avoid Keep away from open flames, hot surfaces and sources of ignition.
 Materials to avoid None in particular.
 Hazardous Decomposition Products None under normal use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Inhalation No known effect.
 Skin contact May cause burns.
 Ingestion No known effect.
 Eye contact Risk of serious damage to eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity No known effect.
 Skin corrosion/irritation Causes severe burns.
 Serious eye damage/eye irritation Risk of serious damage to eyes.
 Skin sensitization No known effect.
 Respiratory sensitization No known effect.
 Germ cell mutagenicity No known effect.
 Neurological Effects No known effect.
 Reproductive toxicity No known effect.
 Developmental toxicity No known effect.
 Teratogenicity No known effect.
 STOT - single exposure No known effect.
 STOT - repeated exposure No known effect.
 Target Organ Effects No known effect.
 Aspiration hazard No known effect.
 Carcinogenicity No known effect.

Component Information

Chemical Name	CAS-No	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-(2-Butoxyethoxy ethanol) Diethylene glycol monobutyl ether	112-34-5	2410 mg/kg (rat)	-	-
1-Aminopropan-2-ol	78-96-6	2813 mg/kg bw (Similar to OECD 401; BASF method;	-	-

		rat)		
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12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic organisms.

Persistence and degradability	No information available.
Bioaccumulative potential	No information available.
Mobility	No information available.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste from Residues / Unused Products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.
California Hazardous Waste Codes (non-household setting)	331

14. TRANSPORT INFORMATION

DOT

UN no	UN1903
UN Proper shipping name	Disinfectant, liquid, corrosive, n.o.s
Description	UN1903, Disinfectant, liquid, corrosive, n.o.s (2-Hexyloxyethanol, 1-Aminopropan-2-ol), 8, III
Hazard Class	8
Packing Group	III
Special Provisions	IB3, T4, TP1
Emergency Response Guide Number	153

IMDG

UN Number	UN1903
UN Proper shipping name	DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
Description	UN1903, Disinfectant, liquid, corrosive, n.o.s. (2-Hexyloxyethanol, 1-Aminopropan-2-ol), III
Transport hazard class(es)	8
Packing Group	III
Environmental Hazards	Marine pollutant
Special precautions for user	223, 274
EmS-No	F-A, S-B

IATA

UN no	UN1903
UN Proper shipping name	DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
Description	UN1903, Disinfectant, liquid, corrosive, n.o.s. (2-Hexyloxyethanol, 1-Aminopropan-2-ol), III
Hazard Class	8
Packing Group	III
ERG Code	8L
Special precautions for user	A3, A803

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	SARA 313 - Threshold Values %
2-(2-Butoxyethoxy ethanol) Diethylene glycol monobutyl ether	112-34-5	1.0
2-Hexyloxyethanol	112-25-4	1.0

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substance(s) which are either listed as hazardous air pollutants (HAPS) or VOC's per the Clean Air Act:

Chemical Name	CAS-No	CAA (Clean Air Act) - 1990 Hazardous Air Pollutants
2-(2-Butoxyethoxy ethanol) Diethylene glycol monobutyl ether	112-34-5	X
2-Hexyloxyethanol	112-25-4	X

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

California Proposition 65

This product is not subject to warning labeling under California Proposition 65. Ethanol is only considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage.

U.S. State Regulations (RTK)

Chemical Name	CAS-No	New Jersey
2-(2-Butoxyethoxy ethanol) Diethylene glycol monobutyl ether	112-34-5	X
2-Hexyloxyethanol	112-25-4	X
1-Aminopropan-2-ol	78-96-6	X

Chemical Name	CAS-No	Massachusetts
1-Aminopropan-2-ol	78-96-6	X

Chemical Name	CAS-No	Pennsylvania
2-(2-Butoxyethoxy ethanol) Diethylene glycol monobutyl ether	112-34-5	X
2-Hexyloxyethanol	112-25-4	X
1-Aminopropan-2-ol	78-96-6	X
Ethanol	64-17-5	X

International Inventories

United States

All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

Canada

This product is in compliance with CEPA for import by P&G.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

CEPA - Canadian Environmental Protection Act

FIFRA

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

EPA Registration number: 3573-96
DANGER
Corrosive
Causes irreversible eye damage and skin burns
HARMFUL IF ABSORBED THROUGH SKIN
Harmful if inhaled

16. OTHER INFORMATION

HMIS Ratings

Health hazard	3
Flammability	1
Physical hazard	0

Health hazard	3
Flammability	1
Instability	0

Issuing Date: 09-Feb-2015

Revision Date: 07-Apr-2015

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS



1. IDENTIFICATION

Product Name	Febreze Professional™ Fabric Refresher Deep Penetrating - Made from Concentrate
Product Code(s)	8-10
Product ID:	15160381_DIL_PROF_NG
Product Type:	Finished Product - Professional Use Only
Recommended Use	Fabric Refresher
Restrictions on Use	Use only as directed on label.
Manufacturer	Procter & Gamble Professional 2 P&G Plaza Cincinnati, Ohio 45202 Procter & Gamble Inc. P.O. Box 355, Station A Toronto, ON M5W 1C5 1-800-332-7787
E-mail Address	pgsds.im@pg.com
Emergency Telephone	Transportation (24 HR) CHEMTREC - 1-800-424-9300 (U.S./ Canada) or 1-703-527-3887 Mexico toll free in country: 800-681-9531

2. HAZARD IDENTIFICATION

This product is classified under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:.

Not Classified.

Hazard Statements	None
Hazard pictograms	None
Precautionary Statements - Prevention	None
Precautionary Statements - Response	None
Precautionary Statements - Storage	None
Precautionary Statements - Disposal	None

Hazards not otherwise classified None (HNOC)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

Chemical Name	Synonyms	Trade Secret	CAS-No	Weight %
Ethanol	-	No	64-17-5	1 - 5

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact	Rinse with plenty of water. Get medical attention immediately if irritation persists.
Skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
Ingestion	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.
Inhalation	Move to fresh air. If symptoms persist, call a physician.
Most important symptoms/effects, acute and delayed	None under normal use conditions.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Dry chemical, CO ₂ , alcohol-resistant foam or water spray. Dry chemical. Alcohol-resistant foam.
Unsuitable Extinguishing Media	None.
Special hazard	None known.
Special protective equipment for fire-fighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Specific hazards arising from the chemical	None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Use personal protective equipment. Do not get in eyes, on skin, or on clothing.
Advice for emergency responders	Use personal protective equipment as required.

Environmental precautions Keep out of waterways. Do not discharge product into natural waters without pre-treatment or adequate dilution.

Methods and materials for containment and cleaning up

Methods for containment Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	CAS-No	ACGIH TLV	OSHA PEL	Mexico PEL
Ethanol	64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	Mexico: TWA 1000 ppm Mexico: TWA 1900 mg/m ³

Chemical Name	CAS-No	Alberta	Quebec	Ontario TWA EV	British Columbia
Ethanol	64-17-5	TWA: 1000 ppm TWA: 1880 mg/m ³	TWA: 1000 ppm TWA: 1880 mg/m ³	STEL: 1000 ppm	STEL: 1000 ppm

No relevant exposure guidelines for other ingredients

Exposure controls

Engineering Measures **Distribution, Workplace and Household Settings:**
Ensure adequate ventilation

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction

Personal Protective Equipment

Eye Protection **Distribution, Workplace and Household Settings:**
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Use appropriate eye protection

Hand Protection	<p>Distribution, Workplace and Household Settings: No special protective equipment required</p> <p>Product Manufacturing Plant (needed at Product-Producing Plant ONLY): Protective gloves</p>
Skin and Body Protection	<p>Distribution, Workplace and Household Settings: No special protective equipment required</p> <p>Product Manufacturing Plant (needed at Product-Producing Plant ONLY): Wear suitable protective clothing</p>
Respiratory Protection	<p>Distribution, Workplace and Household Settings: No special protective equipment required</p> <p>Product Manufacturing Plant (needed at Product-Producing Plant ONLY): In case of insufficient ventilation wear suitable respiratory equipment</p>

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State @20°C Appearance Odor Odor threshold	liquid clear Scented No information available	
<u>Property</u> pH value Melting/freezing point Boiling point/boiling range Flash point	<u>Values</u> 7.22 No information available No information available 51.7 - 60 °C / 125 - 140 °F	<u>Note</u> Product is an aqueous solution containing <= 24% alcohol and > 50% water
Evaporation rate Flammability (solid, gas) Flammability Limits in Air Upper flammability limit Lower Flammability Limit Vapor pressure Vapor density Relative density Water solubility Solubility in other solvents Partition coefficient: n-octanol/water Autoignition temperature Decomposition temperature Viscosity of Product	No information available No information available No information available No information available No information available No information available 0.999 100% No information available No information available No information available No information available No information available < 10 cps	
VOC Content (%)	Products comply with US state and federal regulations for VOC content in consumer products.	

10. STABILITY AND REACTIVITY

Reactivity	None under normal use conditions.
Stability	Stable under normal conditions.
Hazardous polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

Conditions to Avoid None under normal processing.

Materials to avoid None in particular.

Hazardous Decomposition Products None under normal use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Inhalation	No known effect.
Skin contact	No known effect.
Ingestion	No known effect.
Eye contact	No known effect.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity	No known effect.
Skin corrosion/irritation	No known effect.
Serious eye damage/eye irritation	No known effect.
Skin sensitization	No known effect.
Respiratory sensitization	No known effect.
Germ cell mutagenicity	No known effect.
Neurological Effects	No known effect.
Reproductive toxicity	No known effect.
Developmental toxicity	No known effect.
Teratogenicity	No known effect.
STOT - single exposure	No known effect.
STOT - repeated exposure	No known effect.
Target Organ Effects	No known effect.
Aspiration hazard	No known effect.
Carcinogenicity	No known effect.

Component Information

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not expected to be hazardous to the environment.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Mobility No information available.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste from Residues / Unused Products Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Codes 331

(non-household setting)

14. TRANSPORT INFORMATION

DOT Not applicable - diluted product is not intended to be shipped
IMDG Not applicable - diluted product is not intended to be shipped
IATA Not applicable - diluted product is not intended to be shipped

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

California Proposition 65

This product is not subject to warning labeling under California Proposition 65.

U.S. State Regulations (RTK)

Chemical Name	CAS-No	New Jersey
Ethanol	64-17-5	X

Chemical Name	CAS-No	Massachusetts
Ethanol	64-17-5	X

Chemical Name	CAS-No	Pennsylvania
Ethanol	64-17-5	X
Propylene glycol	57-55-6	X

International Inventories

United States

All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

Canada

This product is in compliance with CEPA for import by P&G.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
CEPA - Canadian Environmental Protection Act

16. OTHER INFORMATION

HMIS Ratings

Health hazard	2
Flammability	2
Physical hazard	0

NFPA Ratings

Health hazard	2
Flammability	2
Instability	0

Issuing Date: 09-Jan-2015

Revision Date: 07-Apr-2015

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS



SAFETY DATA SHEET

Issuing Date January 5, 2015

Revision Date New

Revision Number 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name S.O.S® Steel Wool Soap Pads

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Cleaning and scrubbing tool for dishware, pots, and pans

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address

The Clorox Company
1221 Broadway
Oakland, CA 94612

Phone: 1-510-271-7000

Emergency telephone number

Emergency Phone Numbers For Medical Emergencies, call: 1-800-446-1014
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification


This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Carcinogenicity

Category 1B

GHS Label elements, including precautionary statements

Emergency Overview

Signal word	Danger
Hazard Statements	
May cause cancer (inhalation, ingestion).	
	
Appearance	Physical State
Opaque, blue soap mixture impregnated into grey steel wool pads	Solid
	Odor
	Soapy

Precautionary Statements - Prevention

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves, eye protection, and face protection.
Do not breathe dust.

Precautionary Statements - Response

If exposed or concerned: Get medical advice.

Precautionary Statements - Storage

Store locked up.

Precautionary Statements - Disposal

Dispose of contents in accordance with all applicable federal, state, and local regulations.

Hazards not otherwise classified (HNOC)

Not applicable.

Unknown Toxicity

40% of the mixture consists of ingredients of unknown toxicity.

Other information

Toxic to aquatic life.

Interactions with Other Chemicals

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade Secret
Glycerin	56-81-5	3 - 7	*
Sodium carbonate	497-19-8	1 - 5	*
Cocamide MEA	68140-00-1	1 - 5	*
Sodium alkylbenzenesulfonate	68081-81-2	0.5 - 2	*
Sodium nitrite	7632-00-0	0.5 - 2	*
Titanium dioxide	13463-67-7	< 0.3	*

* The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General Advice	Show this safety data sheet to the doctor in attendance.
Eye Contact	Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Skin Contact	Rinse skin with plenty of water. If irritation persists, call a doctor.
Inhalation	Move to fresh air. If breathing problems develop, call a doctor.
Ingestion	Drink a glassful of water. Call a doctor or poison control center.
Protection of First-aiders	Avoid contact with skin, eyes, and clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects	May cause slight eye irritation. Inhalation of dry soap may irritate nose and throat.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Not flammable. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Chemical

Not flammable. None known.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with eyes, skin, and clothing. Ensure adequate ventilation. Use personal protective equipment as required.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental Precautions See Section 12 for ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further spillage if safe to do so.

Methods for Cleaning Up Containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes, and clothing. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Store in a dry area.

Incompatible Products None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Glycerin 56-81-5	TWA: 10 mg/m ³ mist	TWA: 15 mg/m ³ mist, total particulate TWA: 5 mg/m ³ mist, respirable fraction	-
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA - 15 mg/m ³ (total dust)	IDLH - 5000 mg/m ³

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Appropriate engineering controls

Engineering Measures Showers
 Eyewash stations
 Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses.

Skin and Body Protection Wear rubber or neoprene gloves.

Respiratory Protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State	Solid	Odor	Soapy
Appearance	Opaque soap mixture impregnated into steel wool pads	Odor Threshold	No information available
Color	Blue soap - grey steel wool pads		

<u>Property</u>	<u>Values</u>	<u>Remarks/ Method</u>
pH	No data available	None known
Melting/freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	Not flammable	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
Upper flammability limit	No data available	None known
Lower flammability limit	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Bulk density	No data available	None known
Water Solubility	Soap is soluble	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive Properties	Not explosive	
Oxidizing Properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	No data available

10. STABILITY AND REACTIVITY

Reactivity

None known.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

None known.

Incompatible materials

None known.

Hazardous Decomposition Products

None known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Inhalation of dry soap may irritate respiratory tract.
Eye Contact	May cause temporary eye irritation.
Skin Contact	Minor or no effects expected.
Ingestion	Ingestion may cause slight irritation to mucous membranes and gastrointestinal tract.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Glycerin 56-81-5	-	>10 g/kg (Rabbit)	>570 mg/m ³ (Rat, 1 h)
Sodium carbonate 497-19-8	4.1 g/kg (Rat)	-	2.3 g/m ³ (Rat, 2 h)
Cocamide MEA 68140-00-1	3.3 g/kg (Rat)	-	-
Sodium nitrite 7632-00-0	85 mg/kg (Rat)	-	>5.5 mg/L (Rat)
Titanium dioxide 13463-67-7	>10g/kg (Rat)	-	-

Information on toxicological effects

Symptoms May cause redness and tearing of the eyes. Inhalation may irritate respiratory tract.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium nitrite 7632-00-0		Group 2A		X
Titanium dioxide 13463-67-7		Group 2B		X

ACGIH: (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

NTP: (National Toxicology Program)

Known - Known Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure Chronic Toxicity	No information available. Contains a known or suspected carcinogen. May cause adverse effects on the bone marrow and blood-forming system. Sodium nitrite produced stomach tumors in female mice when fed exaggerated doses. Titanium dioxide has been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B) by inhalation.
Target Organ Effects	Respiratory system, gastrointestinal tract, kidney, blood, cardiovascular system.
Aspiration Hazard	Not an aspiration hazard.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic organisms.

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

None known.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Dispose of in accordance with all applicable federal, state, and local regulations.

Contaminated Packaging

Dispose of in accordance with all applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated.
<u>TDG</u>	Not regulated.
<u>ICAO</u>	Not regulated.
<u>IATA</u>	Not regulated.
<u>IMDG/IMO</u>	Not regulated.

15. REGULATORY INFORMATION

Chemical Inventories

TSCA All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.

DSL/NDSL All components are on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains the following chemical that is subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	CAS No.	Weight %	SARA 313 - Threshold Values %
Sodium nitrite	7632-00-0	0.5 - 2	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substance that is a regulated pollutant pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium nitrite 7632-00-0	100 lb.			X

CERCLA

This material, as supplied, contain the following substance regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Sodium nitrite 7632-00-0	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemical.

Chemical Name	California Proposition 65
Titanium dioxide 13463-67-7	Carcinogen (airborne, unbound particles of respirable size)

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



SC Johnson Professional® Ready-To-Use Multi-Surface Floor Finish Plus Sealer

Version 2.0

Print Date 09/21/2016

Revision Date 06/28/2016

SDS Number 350000028747

GEN_SOF Number 57594

1. PRODUCT AND COMPANY IDENTIFICATION

Product information

Product name : SC Johnson Professional® Ready-To-Use Multi-Surface Floor Finish Plus Sealer

Recommended use : Floor Polish/Cleaner

Manufacturer, importer, supplier : S.C. Johnson & Son, Inc.
1525 Howe Street
Racine WI 53403-2236

Telephone : +18005585252
Emergency telephone number : 24 Hour Medical Emergency Phone: (866)231-5406
24 Hour International Emergency Phone: (703)527-3887
24 Hour Transport Emergency Phone: (800)424-9300

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Globally Harmonized System (GHS) Classification

This product does not meet the criteria for classification in any hazard class according to regulation OSHA 29 CFR 1910.1200.

Labelling

Precautionary statements

Keep out of reach of children.

Other hazards : None identified

3. COMPOSITION/INFORMATION ON INGREDIENTS

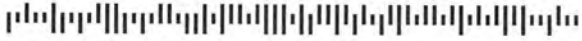
Chemical Name	CAS-No.	Weight percent
Diethylene glycol monoethyl ether	111-90-0	5.00 - 10.00

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Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



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Tributyloxyethyl phosphate	78-51-3	1.00 - 5.00
Zinc oxide	1314-13-2	1.00 - 5.00

The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

For additional information on product ingredients, see www.whatsinsidescjohnson.com.

4. FIRST AID MEASURES

- Eye contact** : No special requirements
- Skin contact** : No special requirements
- Inhalation** : No special requirements.
- Ingestion** : No special requirements

5. FIREFIGHTING MEASURES

- Suitable extinguishing media** : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Specific hazards during firefighting** : Container may melt and leak in heat of fire.
- Further information** : Fight fire with normal precautions from a reasonable distance. Standard procedure for chemical fires. Wear full protective clothing and positive pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Wash thoroughly after handling.
- Environmental precautions** : Outside of normal use, avoid release to the environment.

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



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Methods and materials for containment and cleaning up : Dike large spills.
Clean residue from spill site.

7. HANDLING AND STORAGE

Handling

Precautions for safe handling : Avoid contact with skin, eyes and clothing.
For personal protection see section 8.
KEEP OUT OF REACH OF CHILDREN AND PETS.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Storage

Requirements for storage areas and containers : Keep container closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Components	CAS-No.	mg/m3	ppm	Non-standard units	Basis
Zinc oxide	1314-13-2	5 mg/m3	-	-	OSHA TWA
Zinc oxide	1314-13-2	5 mg/m3	-	-	OSHA TWA
Zinc oxide	1314-13-2	15 mg/m3	-	-	OSHA TWA
Zinc oxide	1314-13-2	10 mg/m3	-	-	ACGIH STEL
Zinc oxide	1314-13-2	2 mg/m3	-	-	ACGIH TWA

Personal protective equipment

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



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- Respiratory protection** : No special requirements.
- Hand protection** : No special requirements.
- Eye protection** : No special requirements.
- Skin and body protection** : No special requirements.
- Hygiene measures** : Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form** : liquid
- Color** : white
- Odor** : Fruity Floral

- Odour Threshold** : Test not applicable for this product type

- pH** : 8.18
at (25 °C)

- Melting point/freezing point** : 32 °F

- Initial boiling point and boiling range** : Test not applicable for this product type

- Flash point** : > 94 °C
> 201.2 °F

- Evaporation rate** : Test not applicable for this product type

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



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SDS Number 350000028747
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Flammability (solid, gas)	: The product is not flammable.
Upper/lower flammability or explosive limits	: Test not applicable for this product type
Vapour pressure	: Test not applicable for this product type
Vapour density	: Test not applicable for this product type
Relative density	: 1.0312 g/cm ³ at 25 °C
Solubility(ies)	: dispersible
Partition coefficient: n-octanol/water	: Test not applicable for this product type
Auto-ignition temperature	: Test not applicable for this product type
Decomposition temperature	: Test not applicable for this product type
Viscosity, dynamic	: 5.5 mPa.s
Viscosity, kinematic	: Test not applicable for this product type
Oxidizing properties	: Test not applicable for this product type
Volatile Organic Compounds Total VOC (wt. %)*	: 0.2 % - additional exemptions may apply *as defined by US Federal and State Consumer Product Regulations

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



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Other information : None identified :

10. STABILITY AND REACTIVITY

Possibility of hazardous reactions : If accidental mixing occurs and toxic gas is formed, exit area immediately. Do not return until well ventilated.

Conditions to avoid : Direct sources of heat.

Incompatible materials : Do not mix with bleach or any other household cleaners. Strong bases

Hazardous decomposition products : Thermal decomposition can lead to release of irritating gases and vapours.

11. TOXICOLOGICAL INFORMATION

Emergency Overview : This product does not meet the criteria for classification in any hazard class according to regulation OSHA 29 CFR 1910.1200.

Acute oral toxicity : LD50 > 5000 mg/kg

Acute inhalation toxicity : LC50 > 10 mg/L

Acute dermal toxicity : LD50 > 5000 mg/kg

GHS Properties	Classification	Routes of entry
Acute toxicity	No classification proposed	Oral
Acute toxicity	No classification proposed	Dermal
Acute toxicity	No classification proposed	Inhalation - Dust and Mist

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



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Revision Date 06/28/2016

SDS Number 350000028747
GEN_SOF Number 57594

Acute toxicity	No classification proposed	Inhalation - Vapour
Acute toxicity	No classification proposed	Inhalation - Gas
Skin corrosion/irritation	No classification proposed	-
Serious eye damage/eye irritation	No classification proposed	-
Skin sensitisation	No classification proposed	-
Respiratory sensitisation	No classification proposed	-
Germ cell mutagenicity	No classification proposed	-
Carcinogenicity	No classification proposed	-
Reproductive toxicity	No classification proposed	-
Specific target organ toxicity - single exposure	No classification proposed	-
Specific target organ toxicity - repeated exposure	No classification proposed	-
Aspiration hazard	No classification proposed	-

Aggravated Medical Condition : None known.

12. ECOLOGICAL INFORMATION

Product : The product itself has not been tested.

Toxicity

The ingredients in this formula have been reviewed and no adverse impact to the environment is expected when used according to label directions.

Toxicity to fish

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



SC Johnson Professional® Ready-To-Use Multi-Surface Floor Finish Plus Sealer

Version 2.0

Print Date 09/21/2016

Revision Date 06/28/2016

SDS Number 350000028747
GEN_SOF Number 57594

Components	End point	Species	Value	Exposure time
Diethylene glycol monoethyl ether	flow-through test LC50	Ictalurus punctatus	6,010 mg/l	96 h
Tributyxyethyl phosphate	semi-static test LC50 Measured	Oncorhynchus mykiss (rainbow trout)	24 mg/l	96 h
Zinc oxide				

Toxicity to aquatic invertebrates

Components	End point	Species	Value	Exposure time
Diethylene glycol monoethyl ether	static test EC50	Daphnia magna (Water flea)	1,982 mg/l	48 h
Tributyxyethyl phosphate	static test EC50 Measured	Daphnia magna (Water flea)	53 mg/l	48 h
Zinc oxide				

Toxicity to aquatic plants

Components	End point	Species	Value	Exposure
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Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200

**SC Johnson Professional® Ready-To-Use Multi-Surface Floor Finish Plus Sealer**

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Revision Date 06/28/2016

SDS Number 350000028747
GEN_SOF Number 57594

				time
Diethylene glycol monoethyl ether	static test EC50 Read-across (Analogy)	Desmodesmus subspicatus (green algae)	> 100 mg/l	96 h
Tributyoxyethyl phosphate	static test EC50	Pseudokirchneriella subcapitata (green algae)	61 mg/l	72 h
Zinc oxide				

Persistence and degradability

Component	Biodegradation	Exposure time	Summary
Diethylene glycol monoethyl ether	100 %	28 d	Readily biodegradable
Tributyoxyethyl phosphate	87 %	28 d	Readily biodegradable
Zinc oxide	No data available		

Bioaccumulative potential

Component	Bioconcentration factor (BCF)	Partition Coefficient n-Octanol/water (log)
Diethylene glycol monoethyl ether	3,162	0.54
Tributyoxyethyl phosphate	5.8 Measured	3.75 Measured
Zinc oxide	No data available	

Mobility

Component	End point	Value
Diethylene glycol monoethyl ether	No data available	
Tributyoxyethyl phosphate	log Koc	2.5
Zinc oxide	No data available	

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



SC Johnson Professional® Ready-To-Use Multi-Surface Floor Finish Plus Sealer

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PBT and vPvB assessment

Component	Results
Diethylene glycol monoethyl ether	Not fulfilling PBT and vPvB criteria
Tributyxyethyl phosphate	Not fulfilling PBT and vPvB criteria

Other adverse effects : None known.

13. DISPOSAL CONSIDERATIONS

Consumer may discard empty container in trash, or recycle where facilities exist.

14. TRANSPORT INFORMATION

Please refer to the Bill of Lading/receiving documents for up-to-date shipping information.

Land transport

Not classified as dangerous in the meaning of transport regulations.

Sea transport

Not classified as dangerous in the meaning of transport regulations.

Air transport

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION

Notification status : All ingredients of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



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California Prop. 65 : This product is not subject to the reporting requirements under California's Proposition 65.

State Right To Know

Massachusetts RTK	Zinc oxide	1314-13-2
Minnesota HSL	Diethylene glycol monoethyl ether	111-90-0
	Zinc oxide	1314-13-2
New Jersey HRTK	Zinc oxide	1314-13-2
Pennsylvania RTKL	Water	7732-18-5
	Acrylic polymers	
	Diethylene glycol monoethyl ether	111-90-0
	Zinc oxide	1314-13-2

16. OTHER INFORMATION

HMIS Ratings

Health	1
Flammability	0
Reactivity	0

NFPA Ratings

Health	1
Fire	0
Reactivity	0
Special	-

This information is being provided in accordance with the Occupational Safety and Health Administration (OSHA) regulation (29 CFR 1910.1200). The information supplied is designed for workplaces where product use and frequency of exposure exceeds that established for the labeled consumer use.

Safety Data Sheet

according to Hazard Communication Standard; 29 CFR 1910.1200



SC Johnson Professional® Ready-To-Use Multi-Surface Floor Finish Plus Sealer

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Revision Date 06/28/2016

SDS Number 350000028747
GEN_SOF Number 57594

Further information

This document has been prepared using data from sources considered to be technically reliable. It does not constitute a warranty, expressed or implied, as to the accuracy of the information contained herein. Actual conditions of use are beyond the seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

Prepared by	SC Johnson Global Safety Assessment & Regulatory Affairs (GSARA)
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Safety Data Sheet (SDS)

OSHA Hazard Communication Standard 29 CFR 1910.1200. Prepared to United Nations (UN)
Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Printing Date: April 23, 2015

1. Product and Company Identification**Product Identifier:** Brillo® Steel Wool Soap Pads**Other Designations:** Brillo® Lemon Fresh Scent Steel Wool Soap Pads; Brillo® Singles Small Size Steel Wool Soap Pads; Brillo® Basics Steel Wool Soap Pads; Brillo® Heavy Duty Steel Wool Soap Pads; Brillo® Commercial Steel Wool Soap Pads; Brillo® Extra Large Steel Wool Soap Pads.**Recommended Use:** Consumer use : General Household Cleaning**Details of the Supplier of the SDS:**

Armaly Brands
P.O. Box 611
Walled Lake, MI 48390
www.armalybrands.com

Product Information and Emergency Contact: 1-800-772-1222**2. Hazards Identification****Classification of the Substance or Mixture:** This Product is not hazardous as defined by OSHA Hazard Communications Standard, 29 CFR 1910.1200.

None of the ingredients in this products are on the IARC, NTP or OSHA carcinogen list.

GHS Label Elements: N.A.**Hazard Pictograms:** N.A.**Signal Word:** N.A.**Hazard-determining Components of Labeling:** N.A.**Hazard Statements:** N.A.**Precautionary Statements:** N.A.**Classification System:** NFPA/HMIS Scales = 0-Least; 1-Slight; 2-Moderate; 3-High; 4-Extreme**NFPA Rating:** Health: 0 Flammability: 0 Instability: 0 Special Hazard: 0**HMIS Rating:** N.A.**3. Composition/Information on Ingredients****Chemical Characterization:** Natural Tallow, Fragrance and Colorant**Description:** Soap**Dangerous Components:** N.A.

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Safety Data Sheet (SDS)

OSHA Hazard Communication Standard 29 CFR 1910.1200. Prepared to United Nations (UN)
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Printing Date: April 23, 2015

4. First Aid Measures
<p>Description of First Aid Measures</p> <p>Inhalation: No information available</p> <p>Skin Contact: Generally, no effect is anticipated. If irritation occurs rinse affected area with warm water.</p> <p>Eye Contact: Generally, no effect is anticipated. If irritation occurs rinse eyes with warm water</p> <p>Ingestion: Do not ingest. May cause gastrointestinal irritation and blockage. If ingested seek medical attention or for pets veterinarian attention.</p> <p>Most Important Symptoms and Effects, Both Acute and Delayed</p> <p>Potential Health Effects: Ingesting may cause gastrointestinal blockage</p> <p>Indications of Any Immediate Medical Attention and Special Treatment Needed: No information is available.</p>
5. Firefighting Measures
<p>Extinguishing Media: Water stream or chemical foam.</p> <p>Suitable Extinguishing Agents: Water stream or chemical foam</p> <p>Special Hazards Arising From the Substance of Mixture: N.A.</p> <p>Advice for Firefighters/Protective Equipment: N.A.</p>
6. Accidental Release Measures
<p>Personal Precautions, Protective Equipment and Emergency Procedures: This product does not have an available spill procedure. No special precautions are necessary. Sweep or scoop up product and dispose of in approved waste containers in compliance with Federal, State and Municipal regulations.</p> <p>Environmental Precautions: N.A.</p> <p>Methods and Material for Containment and Cleaning Up: N.A.</p> <p>Reference to Other Sections: N.A.</p>
7. Handling and Storage
<p>Precautions for Safe Handling: Keep away from heat sources</p> <p>Information About Protection Against Explosions and Fires: N.A.</p> <p>Conditions for Safe Storage, Including Any Incompatibilities: N.A.</p> <p>Storage: N.A.</p> <p>Requirements to be Met by Storerooms and Receptacles: N.A.</p> <p>Information About Storage in One Common Storage Facility: N.A.</p> <p>Further Information About Storage Conditions: N.A.</p> <p>Specific End Use(s): N.A.</p>
8. Exposure Controls/Personal Protection

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Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Printing Date: April 23, 2015

This Product does not require any exposure control

Additional Information About Design of Technical Systems: N.A.

Control Parameters: N.A.

Components With Occupational Exposure Limits: N.A.

Additional Information: N.A.

Exposure Controls: N.A.

Personal Protective Equipment: No precautions or protection are necessary. Rubber, nitrile or neoprene gloves are recommended.

Pictogram: N.A.

General Protective and Hygienic Measures: N.A.

Special Requirements: N.A.

9. Physical and Chemical Properties

Appearance: Flexible steel wool pad impregnated with soap.

Odor: Lemon scent or Fruity breeze scented soap

Odor Threshold: N.A.

pH: N.A.

Melting Point/Freezing Point: N.A.

Initial Boiling Point and Boiling Range: N.A.

Flash Point: N.A.

Evaporation Rate: N.A.

Flammability: N.A.

Upper/Lower Flammability or Explosive Limits: N.A.

Vapor Pressure: N.A.

Vapor Density: N.A.

Relative Density: N.A.

Solubility: The soap in this product is completely water soluble. The steel wool is insoluble in water.

Partition Coefficient: N.A.

Auto-ignition Temperature: N.A.

Viscosity: N.A.

Safety Data Sheet (SDS)

OSHA Hazard Communication Standard 29 CFR 1910.1200. Prepared to United Nations (UN)
Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Printing Date: April 23, 2015

10. Stability and Reactivity

Reactivity: This material is not reactive under normal household cleaning conditions. Avoid contact with mineral acids and strong oxidizing agents.

Chemical Stability: N.A.

Other (e.g., Thermal Decomposition/Conditions to be Avoided; Possibility of Hazardous Reactions; Conditions to Avoid; Incompatible Materials): N.A.

11. Toxicological Information**Primary Irritant Effects**

Skin: Mild skin irritation of the product if used incorrectly

Eyes: Mild eye irritation is the product if used incorrectly

Ingestion: Do not Ingest. Gastrointestinal irritation or blockage may occur.

Lungs: No effects anticipated

Description of Exposure: Ingestion

Delayed, Immediate, or Chronic Effects From Short-Term Exposure: N.A.

Delayed, Immediate, or Chronic Effects From Long-Term Exposure: N.A.

Numerical Measures of Toxicity: N.A.

Description of Symptoms, Including Exposure From the Lowest to the Most Severe: N.A.

NTP Listing: N.A.

Carcinogen Report: N.A.

IARC Monographs: N.A.

Potential Carcinogen as per OSHA: N.A.

12. Ecological Information (Non-Mandatory)

Toxicity: N.A.

Aquatic Toxicity: N.A.

Persistence and Degradability: N.A.

Bio-accumulative Potential: N.A.

Mobility in Soil: N.A.

Additional Ecological Information: N.A.

General Notes

Results of PBT and vPvB Assessment: N.A.

PBT: N.A.

vPvB: N.A.

Other Adverse Effects: N.A.

Safety Data Sheet (SDS)

OSHA Hazard Communication Standard 29 CFR 1910.1200. Prepared to United Nations (UN)
Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Printing Date: April 23, 2015

13. Disposal Considerations (Non-Mandatory)	
Waste Treatment Methods:	N.A.
Recommendations for Appropriate Disposal:	Dispose of or recycle in accordance with Federal, State and Municipal Regulations.
Physical/Chemical Properties That May Affect Disposal:	N.A.
Language Discouraging Sewage Disposal:	Do not dispose of this product in a sewer.
14. Transport Information (Non-Mandatory)	
UN Number:	N.A.
UN Proper Shipping Name:	N.A.
Transport Hazard Class(es):	N.A.
Packing Group Number With Degree of Hazard:	N.A.
Special Precautions:	N.A.
15. Regulatory Information (Non-Mandatory)	
	N.A.
16. Other Information	
SDS Preparation Date:	March 2015
Last Known Revision Date:	Unknown
Other Useful Information:	
	<u>List of Acronyms Used</u> [acronyms provided thus far; add as info gets added to SDS]
	GHS: Globally Harmonized System
	HMIS: Hazardous Materials Identification System
	IARC: International Agency for Research on Cancer
	N.A.: Not Applicable
	NFPA: National Fire Protection Agency
	NTP: National Toxicology Program
	OSHA: United States Department of Labor, Occupational Safety and Health Administration
	PBT: Persistent Bio-accumulative Toxins
	SDS: Safety Data Sheet
	UN: United Nations
	vPvB: Very Persistent and Very Bio-accumulative

Safety Data Sheet (SDS)

OSHA Hazard Communication Standard 29 CFR 1910.1200. Prepared to United Nations (UN)
Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Printing Date: April 23, 2015



Product Name.....: Lithium Ion (Li-Ion) Batteries Cell Model 18650SI

Section 10 – Stability And Reactivity

Not reactive under normal condition of usage
Note safe handling procedure.
Avoid high temperature and mechanical abuse.
Read label and manufacturer instruction before usage.

Section 11 – Toxicological Information

Acute Toxicity:

Not known for Lithium Cobaltate, Aluminum, and Graphite.
Copper causes gastrointestinal disturbance in 60-100mg sized coarse particulate. TDLo- Rabbit 375mg/kg.
Organic electrolyte LD50, oral - -Rat 2000mg/kg or more

Local Effects:

Not known for Lithium Cobaltate, Graphite and Organic Electrolyte.
Aluminum has no known local effects.
Copper in coarse particulate is eye irritant.
No known carcinogen in this product.

Section 12 – Ecological Information

ECOLOGICAL INFORMATION:

Battery is not biodegradable. Do not dispose in landfill.

Section 13 – Disposal Consideration

WASTE DISPOSAL:

Dispose/Recycle according to the applicable municipal, state and federal regulations. Do not dispose in household or commercial waste bin.

SAFETY DATA SHEET

Date Prepared : 3/30/2015

SDS No : Interline_Peroxide Disinfectant

Peroxide Disinfectant

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Peroxide Disinfectant
PRODUCT DESCRIPTION: Disinfectant
PRODUCT CODE: REN07136-SB (2481046)
CHEMICAL FAMILY: Quaternary ammonium chloride blend

DISTRIBUTOR

Interline Brands, Inc.
701 San Marco Blvd.
Jacksonville, FL 32207
Customer Service: 866-412-6726

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEM-TREC (Medical and Transportation): 800-424-9300

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Acute Toxicity (Oral), Category 5
Skin Corrosion, Category 1C
Eye Corrosion, Category 1

Environmental:

Acute Hazards to the Aquatic Environment, Category 1

Physical:

Flammable Liquids, Category 3

GHS LABEL



Corrosion



Flame



Environment

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.
H302: Harmful if swallowed.
H401: Toxic to aquatic life.
H226: Flammable liquid and vapour.

PRECAUTIONARY STATEMENT(S)

Prevention:

P280: Wear protective gloves/protective clothing/eye protection/face protection.
P273: Avoid release to the environment.
P102: Keep out of reach of children.
P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P233: Keep container tightly closed.
P264: Wash thoroughly after handling.
P234: Keep only in original container.

Response:

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P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P310: Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor/physician.
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363: Wash contaminated clothing before reuse.
P391: Collect spillage.
P370+P378: In case of fire: Use dry chemical, alcohol-resistant foam for extinction.

Storage:

P405: Store locked up.
P403+P235: Store in a well-ventilated place. Keep cool.

Disposal:

P501: Dispose of contents/container in accordance with local, state and federal regulations.

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Clear Liquid

IMMEDIATE CONCERNS: Causes irreversible eye damage and skin burns.

POTENTIAL HEALTH EFFECTS

EYES: Corrosive, contact causes severe eye burns.

SKIN: Contact causes severe skin irritation and possible burns.

SKIN ABSORPTION: Harmful if absorbed through skin.

INGESTION: Harmful if swallowed.

INHALATION: Not Established

REPRODUCTIVE TOXICITY

TERATOGENIC EFFECTS: Not Established

CARCINOGENICITY: Not Established

MUTAGENICITY: Not Established

ROUTES OF ENTRY: Eye, skin, ingestion.

WARNING CAUTION LABELS: Corrosive

PHYSICAL HAZARDS: Combustible material.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Alkyl dimethylbenzyl ammonium chloride(C12-C16)	2.304	68424-85-1
Octyl decyl dimethyl ammonium chloride	1.728	32426-11-2
Didecyl dimethyl ammonium chloride	0.864	7173-51-5
Diocetyl dimethyl ammonium chloride	0.864	5538-94-3
Hydrogen Peroxide	5 - 10	7722-84-1
Phosphoric Acid	0 - 1	7664-38-2
Water	80 - 90	7732-18-5

4. FIRST AID MEASURES

EYES: Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Seek medical attention immediately.

SKIN: Remove contaminated clothing. Immediately flush with water followed by washing with mild soap. Seek medical attention.

INGESTION: Get immediate medical attention. Do not induce vomiting unless instructed to do so by poison center or physician.

INHALATION: Remove victim to fresh air and monitor. Seek medical advise if irritation persists.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Severe burning sensation, damage marked by burns.

SKIN: Burning sensation, redness, swelling and possible blistering.

SKIN ABSORPTION: Not Established

INGESTION: Irritation of mouth, throat, along with stomach upset, vomiting.

INHALATION: Irritation of nose, throat and lungs with coughing, sneezing, possible difficulty breathing.

ACUTE TOXICITY: Corrosive to eyes. Causes moderate to severe skin irritation. Harmful if swallowed.

NOTES TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: II (100-140F)

GENERAL HAZARD: Combustible Liquid

EXTINGUISHING MEDIA: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide from combustion

EXPLOSION HAZARDS: Fire exposed containers may burst due to increased pressure from heat.

FIRE FIGHTING PROCEDURES: Keep fire exposed containers cool with water stream or mist.

FIRE FIGHTING EQUIPMENT: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with full face-piece operated in positive pressure mode.

FIRE EXPLOSION: Not Available

SENSITIVE TO STATIC DISCHARGE: None Expected.

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition products may include: Carbon dioxide, Carbon monoxide, nitrogen oxides.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Shut off any ignition sources. Avoid runoff into storm sewers and ditches which lead to waterways.

LARGE SPILL: Shut off all ignition sources. Ventilate area. Avoid walking in material. Prevent product from entering into stream, soil, storm sewer or other bodies of water.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Avoid discharges into open waterways.

LAND SPILL: Avoid discharge to soil.

AIR SPILL: NA = Not Applicable

GENERAL PROCEDURES: Isolate spill or leak area immediately. Keep unauthorized personnel away. Do not touch or walk through spilled material. Prevent entry into waterways, sewers, or confined areas. Absorb with dry earth, sand or other non-combustible material and transfer to containers.

RELEASE NOTES: Product is toxic to fish and aquatic invertebrates.

SPECIAL PROTECTIVE EQUIPMENT: Eye protection, rubber gloves, rubber boots to protect feet.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Do not contaminate water, food, or feed by storage or disposal.

HANDLING: Avoid contact with skin and eyes. Wash hands before eating, drinking, smoking or using toilet facilities.

STORAGE: Store only in original container. Do not reuse empty container. If a leaky container must be contained within another, mark the outer container to identify the contents. Store pesticides away from food, pet food, feed, and water sources. Keep this product under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use.

STORAGE TEMPERATURE: Store at ambient temperatures.

STORAGE PRESSURE: Store at ambient atmospheric pressure.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		Supplier OEL	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Hydrogen Peroxide	TWA	1	1.4	1	1.4	NL	NL
	STEL					NL	NL
Phosphoric Acid	TWA		1		1	NL	NL
	STEL				3	NL	NL

ENGINEERING CONTROLS: Use in well ventilated area.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Chemical splash goggles.

SKIN: Rubber or other chemical resistant gloves.

RESPIRATORY: A respirator is not needed under normal and intended conditions of product use.

PROTECTIVE CLOTHING: Chemical resistant outerwear (tyvek) if contact with spray or mist is anticipated.

WORK HYGIENIC PRACTICES: Wash with soap and water after handling. Do not eat, drink or smoke while using product.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Characteristic.

ODOR THRESHOLD: Not Established

COLOR: Water Clear

pH: 1.0 to 3.0

PERCENT VOLATILE: >80

FLASH POINT AND METHOD: 52.9°C (127.3°F)

FLAMMABLE LIMITS: Not Established to Not Established

AUTOIGNITION TEMPERATURE: Not Established

VAPOR PRESSURE: ~ 20 mm Hg at (68°F)

VAPOR DENSITY: ~ 1 Air = 1

BOILING POINT: 212° F; 100° C

FREEZING POINT: 32° F; 0° C

THERMAL DECOMPOSITION: Not Available

SOLUBILITY IN WATER: Complete

EVAPORATION RATE: (Water =1) 1.0

DENSITY: 8.52 at (20°F)

SPECIFIC GRAVITY: 1.021 grams/ml. at (20°F)

VISCOSITY: Water thin.

(VOC): None

10. STABILITY AND REACTIVITY

REACTIVITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Not Established

HAZARDOUS DECOMPOSITION PRODUCTS: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

INCOMPATIBLE MATERIALS: Strong alkalis, reducing agents, chlorine bleach products.

11. TOXICOLOGICAL INFORMATION

ACUTE

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)
Alkyl dimethylbenzyl ammonium chloride(C12-C16)	450 mg/kg (rat)	3342 mg/kg (rabbit)
Octyl decyl dimethyl ammonium chloride	200 to 2000 mg/kg (rat)	Not available
Didecyl dimethyl ammonium chloride	268 mg/kg (mouse)	2730 mg/kg (rabbit)
Diocetyl dimethyl ammonium chloride	50 mg/kg (mouse)	Not available
Hydrogen Peroxide	> 2000 mg/kg (rat)	> 2000 mg/kg (rabbit)
Phosphoric Acid	~ 1530 mg/kg (rat)	~ 2740 mg/kg (rabbit)

EYES: Corrosive

DERMAL LD₅₀: > 2000 Not Established

SKIN ABSORPTION: Not Established

ORAL LD₅₀: > 1000 Not Established

EYE EFFECTS: Corrosive to eyes. Permanent damage may occur.

SKIN EFFECTS: Corrosive to skin.

CARCINOGENICITY

Chemical Name	IARC Status
Hydrogen Peroxide	Group 3 - Not classifiable as to its carcinogenicity to Humans

IARC: No listed substance

CORROSIVITY: Corrosive

GENETIC EFFECTS: No known significant effects or critical hazards.

REPRODUCTIVE EFFECTS: No known significant effects or critical hazards.

TARGET ORGANS: No known significant effects or critical hazards.

MUTAGENICITY: No known significant effects or critical hazards.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Not Established

ECOTOXICOLOGICAL INFORMATION: This product is toxic to fish and aquatic invertebrates.

AQUATIC TOXICITY (ACUTE): Not Established

CHEMICAL FATE INFORMATION: Not Established

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Attempt to use product completely in accordance with intended use. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at your local office, or the nearest EPA regional office for guidance.

FOR LARGE SPILLS: Consult with local and state authorities for large volume disposal.

PRODUCT DISPOSAL: Any method in accordance with local, state, and federal laws. Best method is to recycle or reuse for intended purpose.

EMPTY CONTAINER: Triple rinse container promptly after emptying. Fill container 1/4 full with water and recap. Shake for 10 seconds. Drain and repeat. Offer for recycling if available or puncture and dispose in a sanitary landfill, or by other procedures approved by state and local authorities.

RCRA/EPA WASTE INFORMATION: Not Established

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Cleaning Compound, not regulated (for US domestic shipment only)

PLACARDS: No special requirements.

LABEL: NA = Not Applicable

OTHER SHIPPING INFORMATION: None

AIR (ICAO/IATA)

SHIPPING NAME: Contact manufacturer for more information.

LABEL: Not Available

VESSEL (IMO/IMDG)

SHIPPING NAME: Cleaning Compound, not regulated.

PACKING GROUP: III

LABEL: NA = Not Applicable

15. REGULATORY INFORMATION

UNITED STATES

DOT LABEL SYMBOL AND HAZARD CLASSIFICATION

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Health Hazard - Acute; Fire Hazard

FIRE: Yes **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** No

313 REPORTABLE INGREDIENTS: No listed substance

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: Not Available

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: None

Chemical Name	Wt.%	CERCLA RQ
Phosphoric Acid	0 - 1	5,000

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All ingredients are listed on the TSCA Chemical Inventory.

STATES WITH SPECIAL REQUIREMENTS

Chemical Name	Requirements
Hydrogen Peroxide	Massachusetts Right to Know Substance New Jersey Right To Know Substance New York Right to Know Substance Pennsylvania Right to Know Substance
Phosphoric Acid	Massachusetts Right to Know Substance New Jersey Right To Know Substance New York Right to Know Substance Pennsylvania Right to Know Substance Rhode Island Right to Know Substance

CALIFORNIA PROPOSITION 65: No listed substance

CARCINOGEN: Not yet Determined

FIFRA (FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT): Regulated

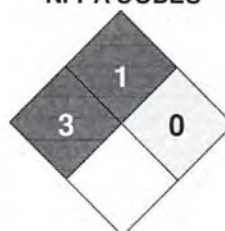
16. OTHER INFORMATION

Date Prepared: 3/30/2015

HMIS RATING

HEALTH	<input type="checkbox"/>	3
FLAMMABILITY		1
PHYSICAL HAZARD		0
PERSONAL PROTECTION		D

NFPA CODES



MANUFACTURER DISCLAIMER: This company cannot anticipate all conditions of handling and use of this product. Therefore, this company accepts no responsibility for results obtained by the application of this information, or the safety and suitability of the product either alone or in combination with other products. It is the responsibility of the employer and/or user to provide a safe workplace, using health and safety information contained herein as a guide. This company will accept no liability for damages or losses incurred from the improper handling and use of this product.

SAFETY DATA SHEET

Date Prepared : 04/21/2015

SDS No : Interline_Neutral Cleaner

Neutral Floor Cleaner

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Neutral Floor Cleaner
GENERAL USE: All purpose cleaner
PRODUCT DESCRIPTION: All Surface Neutral Cleaner
PRODUCT CODE: REN07139-SB (2481049)/REN07307-SB
CHEMICAL FAMILY: Deterent blend

DISTRIBUTOR

Interline Brands, Inc.
701 San Marco Blvd.
Jacksonville, FL 32207
Customer Service: 866-412-6726

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEM-TREC (Medical and Transportation): 800-424-9300

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Eye Irritation, Category 2B

GHS LABEL

SIGNAL WORD: WARNING

HAZARD STATEMENTS

H320: Causes eye irritation.

PRECAUTIONARY STATEMENT(S)

Prevention:

P262: Do not get in eyes, on skin, or on clothing.
P264: Wash hands thoroughly after handling.
P102: Keep out of reach of children.

Response:

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Storage:

P404: Store in a closed container.

Disposal:

P501: Dispose of contents/container in accordance with all local, state and federal regulations.

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Pink Liquid

IMMEDIATE CONCERNS: Eye irritant

POTENTIAL HEALTH EFFECTS

EYES: Contact causes eye irritation.

SKIN: Skin irritant with prolonged or repeated contact.

SKIN ABSORPTION: None Expected.

INGESTION: Although of moderate to low toxicity, ingestion of large amounts can cause gastrointestinal irritation, nausea,

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SDS Communication for your recent order



7747 1 MB 0.424 E0279X I0837 D3423089231 S2 P5172551 0001:0003



YAMHIL CARLTON INTERMEDIATE
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03/12/18

Enclosed, please find Safety Data Sheets for your recent orders: 3515231
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If you have any questions, please contact Customer Service at 866-412-6726

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LAND SPILL: Avoid discharge to soil.

AIR SPILL: NA = Not Applicable

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Close container after use.

HANDLING: Avoid contact with skin and eyes. Wash hands before eating, drinking, smoking or using toilet facilities.

STORAGE: Store in closed container in an area inaccessible to children.

STORAGE TEMPERATURE: Store at ambient temperatures.

STORAGE PRESSURE: Store at ambient atmospheric pressure.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: No special requirements.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Safety glasses with side shields.

SKIN: Rubber or other chemical resistant gloves.

RESPIRATORY: NA = Not Applicable

PROTECTIVE CLOTHING: NA = Not Applicable

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Characteristic.

ODOR THRESHOLD: Not Established

COLOR: Pink

pH: 6.0 to 7.0

PERCENT VOLATILE: >75

FLASH POINT AND METHOD: None

FLAMMABLE LIMITS: N/A

AUTOIGNITION TEMPERATURE: NA = Not Applicable

VAPOR PRESSURE: ~ 20 mm Hg at (68°F)

VAPOR DENSITY: ~ 1 Air = 1

BOILING POINT: 212° F; 100° C

FREEZING POINT: 32° F; 0° C

SOLUBILITY IN WATER: Complete

EVAPORATION RATE: (Water =1) 1.0

DENSITY: 8.55 at (68°F)

SPECIFIC GRAVITY: 1.025 grams/ml.

VISCOSITY: Water thin.

(VOC): None

10. STABILITY AND REACTIVITY

REACTIVITY: Yes

HAZARDOUS POLYMERIZATION: Will not occur.

STABILITY: No known significant effects or critical hazards.

CONDITIONS TO AVOID: Strong oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS: None Expected.

INCOMPATIBLE MATERIALS: Strong oxidizers

vomiting, diarrhea.

INHALATION: None Expected.

REPRODUCTIVE TOXICITY

TERATOGENIC EFFECTS: None known.

CARCINOGENICITY: No listed substance

MUTAGENICITY: None known.

ROUTES OF ENTRY: Ingestion, eye

CANCER STATEMENT: No listed substance

WARNING CAUTION LABELS: None

PHYSICAL HAZARDS: None Expected.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Secondary Alcohol Ethoxylate	5 - 10	84133-50-6
C8-C10 ethoxylated, propoxylated alcohols	0 - 5	68603-25-8
Sodium Xylene Sulfonate	0 - 5	1300-72-7
Potassium Citrate	0 - 3	6100-05-6
Dye	< 0.1	N/A
Water	85 - 90	7732-18-5

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

SKIN: Wash with soap and water. Get medical attention if irritation develops or persists.

INGESTION: Get immediate medical attention. Do not induce vomiting unless instructed to do so by poison center or physician.

INHALATION: No special requirements.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Burning sensation with tearing, redness.

SKIN: Redness and itching sensation.

INGESTION: Irritation of mouth, throat, along with stomach upset, vomiting.

INHALATION: No known significant effects or critical hazards.

ACUTE TOXICITY: None known.

CHRONIC EFFECTS: No known significant effects or critical hazards.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: NA = Not Applicable

EXTINGUISHING MEDIA: No special requirements.

EXPLOSION HAZARDS: None

FIRE FIGHTING PROCEDURES: NA = Not Applicable

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Avoid walking in product. Wipe up or otherwise flush small spills to sanitary sewer.

LARGE SPILL: Avoid walking in material. Prevent product from entering into stream, soil, storm sewer or other bodies of water.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Avoid discharges into open waterways.

11. TOXICOLOGICAL INFORMATION

ACUTE

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)	INHALATION LC ₅₀ (rat)
Secondary Alcohol Ethoxylate	> 412 mg/kg (rat)	> 14000 mg/kg (rabbit)	1.06 mg/l (Rat), Aerosol
C8-C10 ethoxylated, propoxylated alcohols	447 to 847 mg/kg (rat)	~ 4000 mg/kg (rabbit)	

EYES: Not Established

DERMAL LD₅₀: No known significant effects or critical hazards.

SKIN ABSORPTION: No known significant effects or critical hazards.

INHALATION LC₅₀: No known significant effects or critical hazards.

EYE EFFECTS: Mild to moderate eye irritant.

SKIN EFFECTS: May irritate skin with prolonged or repeated contact.

CHRONIC: No known significant effects or critical hazards.

IRRITATION: Not Established

SENSITIZATION: No known significant effects or critical hazards.

REPRODUCTIVE EFFECTS: No known significant effects or critical hazards.

MUTAGENICITY: No known significant effects or critical hazards.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: No known significant effects or critical hazards.

ECOTOXICOLOGICAL INFORMATION: Not Established

AQUATIC TOXICITY (ACUTE): Not Established

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Small amounts (less than 5 gallons) may be disposed of in sanitary sewer. Consult local authorities for additional disposal information.

FOR LARGE SPILLS: Consult with local and state authorities for large volume disposal.

PRODUCT DISPOSAL: Any method in accordance with local, state, and federal laws. Best method is to recycle or reuse for intended purpose.

EMPTY CONTAINER: Rinse container with clear water. Offer container for recycling, or dispose of in trash.

RCRA/EPA WASTE INFORMATION: NA = Not Applicable

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Cleaning Compound, not regulated.

U.S. CUSTOMS HARMONIZATION NUMBER: 3402.90.10.00

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Health - Acute

FIRE: No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** No

313 REPORTABLE INGREDIENTS: None

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: NA = Not Applicable

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: NA = Not Applicable

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All ingredients are listed on the TSCA Chemical Inventory.

CALIFORNIA PROPOSITION 65: No listed substance

CARCINOGEN: No listed substance

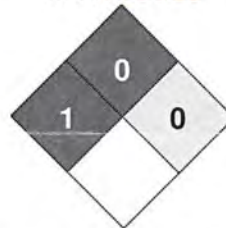
16. OTHER INFORMATION

PREPARED BY: Regulatory Affairs Dept. **Date Prepared:** 04/21/2015

HMIS RATING

HEALTH	<input type="checkbox"/>	1
FLAMMABILITY		0
PHYSICAL HAZARD		0
PERSONAL PROTECTION		B

NFPA CODES



MANUFACTURER DISCLAIMER: This company cannot anticipate all conditions of handling and use of this product. Therefore, this company accepts no responsibility for results obtained by the application of this information, or the safety and suitability of the product either alone or in combination with other products. It is the responsibility of the employer and/or user to provide a safe workplace, using health and safety information contained herein as a guide. This company will accept no liability for damages or losses incurred from the improper handling and use of this product.

SAFETY DATA SHEET FOAMING HAND WASH

1. Identification

Product identifier

Product name FOAMING HAND WASH
Product number APP17100-04 / 102666
Internal identification 51311 / 0009

Details of the supplier of the safety data sheet

Supplier Interline Brands
Jacksonville, FL

866-412-6726
Manufacturer Deb USA, Inc.
1100 South Highway 27
Stanley, North Carolina 28164 USA
704-263-4502 (Fax)
704-263-4240

Emergency telephone number

Emergency telephone Chemtrec 800 424 9300 (24 hour)

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified
Health hazards Eye Irrit. 2B - H320
Environmental hazards Not Classified

Label elements

Signal word Warning
Hazard statements H320 Causes eye irritation.
Precautionary statements P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

3. Composition/information on ingredients

Mixtures

Composition comments Aqua (Water), Sodium Laureth Sulfate, Propylene Glycol, PEG-7 Glyceryl Cocoate, Glycerin, Cocamidopropyl Betaine, 2-Bromo-2-nitropropane-1,3-diol, Parfum (Fragrance), Citric Acid, Methylchloroisothiazolinone, Methylisothiazolinone, Blue 1 (CI 42090).

4. First-aid measures

Description of first aid measures

Inhalation Not relevant. Unlikely route of exposure as the product does not contain volatile substances.
Ingestion Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.

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3823 1 MB 0.423 E0323X I0703 D2880844895 S2 P4675065 0001:0003



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FOAMING HAND WASH

Skin Contact	Not applicable.
Eye contact	Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention promptly if symptoms occur after washing.

Most important symptoms and effects, both acute and delayed

Inhalation	No specific symptoms known.
Ingestion	No specific symptoms known.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	May cause temporary eye irritation.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	No specific recommendations.
----------------------	------------------------------

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Hazardous combustion products No known hazardous decomposition products.

Advice for firefighters

Protective actions during firefighting No specific firefighting precautions known.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes.

Environmental precautions

Environmental precautions Not considered to be a significant hazard due to the small quantities used.

Methods and material for containment and cleaning up

Methods for cleaning up Flush away spillage with plenty of water. Avoid runoff into storm sewers and ditches which lead to waterways.

Reference to other sections For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Avoid contact with eyes.

Conditions for safe storage, including any incompatibilities

Storage precautions Keep only in the original container.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

FOAMING HAND WASH

Exposure controls

Appropriate engineering controls	Not relevant.
Eye/face protection	Not required normally but wear eye protection if you are conducting an operation where there is a risk of this product getting in the eyes.
Hand protection	Not applicable.
Respiratory protection	No specific recommendations.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Liquid
Color	Blue.
Odor	Fragrant.
pH	pH (concentrated solution): 6.0 - 7.0

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	Stable at normal ambient temperatures.
Possibility of hazardous reactions	Not known.
Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.
Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
Hazardous decomposition products	Does not decompose when used and stored as recommended.

11. Toxicological information

Information on toxicological effects

Toxicological effects	All ingredients are well known and have a history of safe use in the marketplace with no reports of a significant number of adverse reactions.
Inhalation	No specific health hazards known.
Ingestion	May cause gastrointestinal irritation or discomfort with nausea, vomiting and diarrhea if swallowed.
Skin Contact	Skin irritation should not occur when used as recommended.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Not regarded as dangerous for the environment.
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Bioaccumulative potential

FOAMING HAND WASH

Bio-Accumulative Potential No data available on bioaccumulation.

Mobility in soil

Mobility The product is soluble in water.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods Dispose in accordance with local, state and federal regulations.

14. Transport information

Road transport notes Not classified.

Rail transport notes Not classified.

Sea transport notes Not classified.

Air transport notes Not classified.

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

Not applicable.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

No.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

FOAMING HAND WASH

Regulatory Status This product is manufactured and labeled in compliance with the Federal Food, Drug, and Cosmetic Act, and is exempt from the labeling requirements of the OSHA Hazard Communication Standard. All components of this product are either on the TSCA 8(b) inventory or otherwise exempt from listing.

International Regulations

16. Other information

Revision comments	New SDS Software
Revision date	4/16/2015
Revision	1
SDS No.	11607
Hazard statements in full	H320 Causes eye irritation.
Notes For Risk Phrases And Hazard Statements In Full	The full text for Risk Phrases and Hazard Statements in section 16 relates to the reference numbers in sections 2 and 3 and not necessarily the finished product classification.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



Bath Mate RTU Ready-to-Use Acid-Free Disinfectant Washroom Cleaner

Version Number: 1

Preparation date: 2014-07-28

1. IDENTIFICATION

Product name: Bath Mate RTU Ready-to-Use Acid-Free Disinfectant Washroom Cleaner
Product Code: 5516217
SDS #: MS0800448
Recommended use:

- Disinfectant Cleaner
- This product is intended to be used neat.

Uses advised against: Uses other than those identified are not recommended

Manufacturer, importer, supplier:
 US Headquarters
 Diversey, Inc.
 P.O. Box 19747
 Charlotte, NC 28219-0747
 Phone: 1-888-352-2249
 SDS Internet Address: www.diversey.com

Emergency telephone number: 1-800-851-7145 (U.S.); 1-651-917-6133 (Int'l)

2. HAZARDS IDENTIFICATION

Classification for the undiluted product

This product is not classified as hazardous according to OSHA 29CFR 1910.1200 (HazCom 2012-GHS) and current Canadian Controlled Products Regulations (CPR).

Precautionary Statements

May be mildly irritating to eyes and skin. In case of contact, immediately flush with plenty of water. If irritation occurs and persists, get medical attention.

Health hazards not otherwise classified (HHNOC) - Not applicable

Physical hazards not otherwise classified (PHNOC) - Not applicable

Classification for the diluted product @ RTU

This product is intended to be used neat.

Precautionary Statements

None required.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classified Ingredients

Ingredient(s)	CAS #	Weight %
Diethylene glycol butyl ether	112-34-5	1% - < 3%

Bath Mate RTU Ready-to-Use Acid-Free
Disinfectant Washroom Cleaner

1 of 5



*Exact percentages are being withheld as trade secret information

4. FIRST AID MEASURES

Undiluted Product:

Eyes: In case of contact, immediately flush with plenty of water. If irritation occurs and persists, get medical attention.

Skin: In case of contact, immediately flush with plenty of water. If irritation occurs and persists, get medical attention.

Inhalation: No specific first aid measures are required.

Ingestion: Rinse mouth with water.

Most Important Symptoms/Effects: No information available.

Immediate medical attention and special treatment needed: Not applicable.

Aggravated Medical Conditions: None known.

Diluted Product:

This product is intended to be used neat.

Eyes: See undiluted product information above.

Skin: See undiluted product information above.

Inhalation: See undiluted product information above.

Ingestion: See undiluted product information above.

5. FIRE-FIGHTING MEASURES

Specific methods: No special methods required

Suitable extinguishing media: The product is not flammable. Extinguish fire using agent suitable for surrounding fire.

Specific hazards: Not applicable.

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Extinguishing media which must not be used for safety reasons: No information available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Not relevant to the product itself.

Environmental precautions and clean-up methods: Clean-up methods - large spillage. Material is toxic to fish. Do not discharge into lakes, streams, ponds, or public water unless in accordance with an NPDES permit. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use a water rinse for final clean-up.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Avoid breathing vapors or mists. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

Storage: Protect from freezing. Keep tightly closed in a dry, cool and well-ventilated place. KEEP OUT OF REACH OF CHILDREN.

Aerosol Level (if applicable): Not applicable

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:

Undiluted Product:

Engineering measures to reduce exposure:

No special ventilation requirements General room ventilation is adequate

Personal Protective Equipment

Eye protection: No special requirements under normal use conditions.

Hand protection: No special requirements under normal use conditions.

Skin and body protection: No special requirements under normal use conditions.

Respiratory protection: No special requirements under normal use conditions.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

Diluted Product:

This product is intended to be used neat.

Personal Protective Equipment

Eye protection:	No personal protective equipment required under normal use conditions.
Hand protection:	No personal protective equipment required under normal use conditions.
Skin and body protection:	No personal protective equipment required under normal use conditions.
Respiratory protection:	No personal protective equipment required under normal use conditions.
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical State: Liquid	Color: Clear, Green
Evaporation Rate: No information available	Odor: Fresh
Odor threshold: No information available.	Boiling point/range: Not determined
Melting point/range: Not determined	Decomposition temperature: Not determined
Autoignition temperature: No information available	Solubility: Completely Soluble
Solubility in other solvents: No information available	Relative Density (relative to water): 1
Density: 8.34 lbs/gal 1 Kg/L	Vapor density: No information available
Bulk density: No information available	Vapor pressure: No information available.
Flash point: > 200 °F > 93.3 °C	Partition coefficient (n-octanol/water): No information available
Dilution Flash Point: > 200 °F > 93.3 °C	Viscosity: No information available
Elemental Phosphorus: 0.00 % by wt.	VOC: 0.49 % *
pH: 10.75	VOC % by wt. at use dilution: 0.49 % *
Dilution pH: 10.75 @ RTU	Flammability (Solid or Gas): Not applicable
Metal Corrosion: Not determined	
Explosion limits: - upper: Not determined - lower: Not determined	

* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

10. STABILITY AND REACTIVITY

Reactivity:	Not Applicable
Stability:	The product is stable
Hazardous decomposition products:	None reasonably foreseeable.
Materials to avoid:	Do not mix with any other product or chemical unless specified in the use directions.
Conditions to avoid:	No information available.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Eye contact, Skin contact, Inhalation

Delayed, immediate, or chronic effects and symptoms from short and long-term exposure

Skin contact: May be mildly irritating to skin. Symptoms may include redness and/or transient discomfort.

Eye contact: May be mildly irritating to eyes. Symptoms may include redness, watering and/or transient discomfort.

Ingestion: No information available.

Inhalation: No information available.

Sensitization: No known effects.

Target Organs (SE): None known

Target Organs (RE): None known

Numerical measures of toxicity

12. ECOLOGICAL INFORMATION

Ecotoxicity: No information available.

Persistence and Degradability: No information available.

Bath Mate RTU Ready-to-Use Acid-Free Disinfectant Washroom Cleaner

3 of 5

Bioaccumulation: No information available.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: This product, as sold, if discarded or disposed, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

Contaminated Packaging: Do not re-use empty containers.

RCRA Hazard Class (undiluted product): Not Regulated

14. TRANSPORT INFORMATION

DOT/TDG/IMDG: Proper shipping descriptions can vary by pack size. Please refer to the Diversey HazMat Library, only available through Internet Explorer, <http://naextranet.diversey.com/dot/>, for up to date shipping information.

DOT (Ground) Bill of Lading Description: DISINFECTANTS

IMDG (Ocean) Bill of Lading Description: DISINFECTANTS

15. REGULATORY INFORMATION

International Inventories at CAS# Level

All components of this product are listed on the following inventories: U.S.A. (TSCA).

U.S. Regulations

EPA Reg. No. : 70627-67

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

DANGER: Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Harmful if inhaled. Avoid breathing spray mist. Remove contaminated clothing and wash clothing before reuse. ENVIRONMENTAL HAZARDS: This product is toxic to fish and aquatic invertebrates.

California Proposition 65: This product is not subject to the reporting requirements under California's Proposition 65.

RIGHT TO KNOW (RTK)

CERCLA/ SARA

Ingredient(s)	CAA HAP	CAA ODS	CWA Priority Pollutants
Diethylene glycol butyl ether	X		

SARA 311/312 Hazard Categories

Immediate: -
Delayed: -
Fire: -
Reactivity: -
Sudden Release of Pressure: -


Canadian Regulations

Ingredient(s)	CAS #	NPRI
Diethylene glycol butyl ether	112-34-5	X

16. OTHER INFORMATION

NFPA (National Fire Protection Association)

Rating Scale: (Low Hazard) 0 - 4 (Extreme Hazard)



Health 1
Flammability 0
Instability 0

Version Number: 1
Preparation date: 2014-07-28

Reason for revision: Not applicable
Prepared by: NAPRAC
Additional advice: • Contains an added fragrance, see "Odor" heading in section 9 for specific description

Notice to Reader: This document has been prepared using data from sources considered technically reliable. It does not constitute a warranty, express or implied, as to the accuracy of the information contained within. Actual conditions of use and handling are beyond seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.



Vectra Floor Finish

Version Number: 2

Preparation date: 2016-09-15

1. IDENTIFICATION

Product name: Vectra Floor Finish
Product Code: 04078, 4971921, 5105047, 08740
SDS #: MS0800997
Recommended use: • Floor care
Uses advised against: Uses other than those identified are not recommended

Manufacturer, importer, supplier: US Headquarters Sealed Air 8215 Forest Point Blvd. Charlotte, NC 28273-5509 Phone: 1-888-352-2249 SDS Internet Address: https://sds.sealedair.com	Canadian Headquarters Sealed Air - Canada 3755 Laird Road Mississauga, Ontario L5L 0B3 Phone: 1-800-668-7171
--	--

Emergency telephone number: 1-800-851-7145; 1-651-917-6133 (Int'l)

2. HAZARDS IDENTIFICATION

Classification for the undiluted product

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Germ cell mutagenicity	Not classified

**Signal Word:****Warning.**

Precautionary Statements

CAUSES SKIN AND SERIOUS EYE IRRITATION.

Avoid contact with eyes, skin and clothing. Wash affected areas thoroughly after handling. May cause irritation to mouth, throat and stomach. Wear protective gloves, protective clothing and eye or face protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Take off contaminated clothing and wash it before reuse. Dispose of in accordance with all federal, state and local applicable regulations.

Health hazards not otherwise classified (HHNOC) - Not applicable

Physical hazards not otherwise classified (PHNOC) - Not applicable

Percentage of unknown Acute Toxicity

1.24625 (example 100-79-8)

Vectra Floor Finish

1 of 5

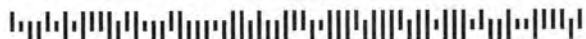


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Classification for the diluted product

This product is intended to be used neat.

Precautionary Statements

See undiluted product information above.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classified Ingredients

Ingredient(s)	CAS #	Weight %
Diethylene glycol monoethyl ether	111-90-0	3 - < 5%
Zinc ammonium carbonate	40861-29-8	1 - < 3%
1,3-Dioxolane-4-methanol, 2,2-dimethyl-	100-79-8	1 - < 3%
Tributoxyethyl phosphate	78-51-3	1 - < 3%

*Exact percentages are being withheld as trade secret information

4. FIRST AID MEASURES

Undiluted Product:

Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes.

Skin: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water for at least 15 minutes. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Inhalation: No specific first aid measures are required.

Ingestion: IF SWALLOWED: Rinse mouth. Drink a cupful of milk or water.

Most Important Symptoms/Effects: No information available.

Immediate medical attention and special treatment needed: Not applicable.

Diluted Product:

Eyes: See undiluted product information above.

Skin: See undiluted product information above.

Inhalation: See undiluted product information above.

Ingestion: See undiluted product information above.

5. FIRE-FIGHTING MEASURES

Specific methods:

No special methods required

Suitable extinguishing media:

The product is not flammable. Extinguish fire using agent suitable for surrounding fire.

Specific hazards:

Not applicable.

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Extinguishing media which must not be used for safety reasons: No information available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Put on appropriate personal protective equipment (see Section 8.).

Environmental precautions and clean-up methods:

Clean-up methods - large spillage. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use a water rinse for final clean-up.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin and eyes. Wash thoroughly after handling. Use only in well-ventilated areas. Do not mix with other products or chemicals except as directed on the label. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

Storage: Protect from freezing. Keep tightly closed in a dry, cool and well-ventilated place. KEEP OUT OF REACH OF CHILDREN.

Aerosol Level (if applicable): Not applicable

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Ingredient(s)	CAS #	ACGIH	OSHA
Diethylene glycol monoethyl ether	111-90-0	-	-
Zinc ammonium carbonate	40861-29-8	-	-
1,3-Dioxolane-4-methanol, 2,2-dimethyl-	100-79-8	-	-
Tributoxyethyl phosphate	78-51-3	-	-

Undiluted Product:

Engineering measures to reduce exposure:

No special ventilation requirements General room ventilation is adequate

Personal Protective Equipment

Eye protection: Chemical-splash goggles.
Hand protection: Chemical-resistant gloves.
Skin and body protection: No special requirements under normal use conditions. If major exposure is possible, wear suitable protective clothing and footwear.
Respiratory protection: Use only in well-ventilated areas. In case of insufficient ventilation wear suitable respiratory equipment.
Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

Diluted Product:

This product is intended to be used neat.

Personal Protective Equipment

Eye protection: Chemical-splash goggles.
Hand protection: Chemical-resistant gloves.
Skin and body protection: No special requirements under normal use conditions. If major exposure is possible, wear suitable protective clothing and footwear.
Respiratory protection: Use only in well-ventilated areas. In case of insufficient ventilation wear suitable respiratory equipment.
Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Evaporation Rate: No information available
Odor threshold: No information available.
Melting point/range: Not determined
Autoignition temperature: No information available
Solubility in other solvents: No information available
Density: 8.59 lbs/gal 1.03 Kg/L
Bulk density: No information available
Flash point (°F): > 200 °F > 93.4 °C
Dilution Flash Point: 200 °F 93.4 °C
Elemental Phosphorus: 0.1 % by wt.
pH: 8.6
Dilution pH: No information available.
Metal Corrosion: Not determined
Explosion limits: - upper: Not determined - lower: Not determined

Color: Opaque, Off-White
Odor: Ammonia
Boiling point/range: Not determined
Decomposition temperature: Not determined
Solubility: No information available
Relative Density (relative to water): No information available
Vapor density: No information available
Vapor pressure: No information available.
Partition coefficient (n-octanol/water): No information available
Viscosity: No information available
VOC: 1 % *
VOC % by wt. at use dilution 1 % *
Flammability (Solid or Gas): Not applicable
Sustained combustion: Not applicable

* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

10. STABILITY AND REACTIVITY

Reactivity: Not Applicable
Stability: The product is stable
Hazardous decomposition products: None reasonably foreseeable.
Materials to avoid: Do not mix with any other product or chemical unless specified in the use directions.
Conditions to avoid: No information available.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Skin contact, Inhalation, Eye contact

Delayed, immediate, or chronic effects and symptoms from short and long-term exposure

Skin contact: Causes skin irritation. Symptoms may include pain (which may be delayed), redness, and/or discomfort.

Eye contact: Causes serious eye irritation. Symptoms may include pain, redness, and watering.

Ingestion: May be irritating to mouth, throat and stomach. Symptoms may include stomach pain and nausea.

Inhalation: May be irritating to nose, throat, and respiratory tract. Symptoms may include coughing and difficulty breathing.

Sensitization: No known effects.

Target Organs (SE): None known

Target Organs (RE): None known

Carcinogen Listings: None of the components in this product at $\geq 0.1\%$ are listed as a carcinogen by IARC, NTP or OSHA.

Numerical measures of toxicity

ATE - Oral (mg/kg): >5000

ATE - Inhalatory, mists (mg/l): >20

Percentage of unknown Acute Toxicity 1.24625 (example 100-79-8)

12. ECOLOGICAL INFORMATION

Ecotoxicity: No information available.

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products (undiluted product): This product, as sold, if discarded or disposed, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

Waste from residues / unused products (diluted product): Not applicable.

RCRA Hazard Class (undiluted product): Not Regulated

RCRA Hazard Class (diluted product): Not Applicable

Contaminated Packaging: Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT/TDG/IMDG: Proper shipping descriptions can vary by pack size. Please refer to the Diversey HazMat Library, <http://naextranet.diversey.com/dot/>, for up to date shipping information.

DOT (Ground) Bill of Lading Description: BUFFING OR POLISHING COMPOUNDS

IMDG (Ocean) Bill of Lading Description: BUFFING OR POLISHING COMPOUNDS

15. REGULATORY INFORMATION

International Inventories at CAS# Level

All components of this product are listed on the following inventories: U.S.A. (TSCA), Canada (DSL/NDSL).

California Proposition 65: This product is not subject to the reporting requirements under California's Proposition 65.

RIGHT TO KNOW (RTK)

Ingredient(s)	CAS #	MARTK:	NJRTK:	PARTK:	RIRTK:
Water	7732-18-5	-	-	-	-
Acrylate copolymer	Proprietary	-	-	-	-

Acrylic Polymers	Proprietary	-	-	-	-
Diethylene glycol monoethyl ether	111-90-0	-	X	-	-
Zinc ammonium carbonate	40861-29-8	-	X	-	-
1,3-Dioxolane-4-methanol, 2,2-dimethyl-	100-79-8	-	-	-	-
Tributoxyethyl phosphate	78-51-3	-	-	-	-

CERCLA/ SARA

Ingredient(s)	CAS #	Weight %	CERCLA/SARA RQ (lbs)	Section 302 TPQ (lbs)	Section 313
Diethylene glycol monoethyl ether	111-90-0	3 - < 5%			X
Zinc ammonium carbonate	40861-29-8	1 - < 3%			X

Ingredient(s)	CAA HAP	CAA ODS	CWA Priority Pollutants
Diethylene glycol monoethyl ether	X		

SARA 311/312 Hazard Categories

Immediate: X
Delayed: -
Fire: -
Reactivity: -
Sudden Release of Pressure: -

Canadian Regulations

16. OTHER INFORMATION

NFPA (National Fire Protection Association)

Rating Scale: (Low Hazard) 0 - 4 (Extreme Hazard)

Health 2
Flammability 0
Instability 0

Version Number: 2
Preparation date: 2016-09-15

Reason for revision: Not applicable
Prepared by: NAPRAC

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Dry Foam Shampoo & Encapsulation Cleaner

Version Number: 3

Preparation date: 2014-12-18

1. IDENTIFICATION

Product name: Dry Foam Shampoo & Encapsulation Cleaner
Product Code: 9BP92017
SDS #: MS0800579
Recommended use:

- Industrial/Institutional
- Carpet Care
- This product is intended to be diluted prior to use

Uses advised against: Uses other than those identified are not recommended

Manufacturer, importer, supplier: US Headquarters Diversey, Inc. 8310 16th St. Sturtevant, Wisconsin 53177-1964 Phone: 1-888-352-2249 MSDS Internet Address: www.diversey.com	Canadian Headquarters Diversey, Inc. - Canada 3755 Laird Road Mississauga, Ontario L5L 0B3 Phone: 1-800-668-3131
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Emergency telephone number: 1-800-851-7145 (U.S.); 1-651-917-6133 (Int'l)

2. HAZARDS IDENTIFICATION

Classification for the undiluted product

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1

**Signal Word:**

Danger

Precautionary Statements

CAUSES SKIN IRRITATION. CAUSES SERIOUS EYE DAMAGE.

Causes burns/ serious damage to mouth, throat and stomach. Avoid contact with eyes, skin and clothing. Keep container tightly closed. Wash affected areas thoroughly after handling. Wear chemical-splash goggles and chemical-resistant gloves. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Immediately call a Poison Center (1-800-851-7145) or physician. Dispose of in accordance with all federal, state and local applicable regulations.

Health hazards not otherwise classified (HHNOC) - Not applicable

Physical hazards not otherwise classified (PHNOC) - Not applicable

Dry Foam Shampoo & Encapsulation
Cleaner

1 of 5



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Classification for the diluted product @ 1:12

This product, when diluted as stated on the label, is not classified as hazardous according to OSHA 29CFR 1910.1200 (HazCom 2012-GHS) and current Canadian Controlled Products Regulations (CPR).

Precautionary Statements

None required.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Classified Ingredients**

Ingredient(s)	CAS #	Weight %
Disodium 1-[2-[(1-oxododecyl)amino]ethyl] 2-sulphonatosuccinate	25882-44-4	10 - 20%
Sodium lauryl sulfate	151-21-3	3% - < 5%
1,2-Benzisothiazol-3(2H)-one	2634-33-5	< 0.1%

*Exact percentages are being withheld as trade secret information

4. FIRST AID MEASURES**Undiluted Product:**

Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes.

Skin: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion: IF SWALLOWED: Rinse mouth. DO NOT induce vomiting unless directed to do so by medical personnel. Drink a cupful of milk or water.

Most Important Symptoms/Effects: No information available.

Immediate medical attention and special treatment needed: Not applicable.

Aggravated Medical Conditions: Persons with pre-existing skin disorders may be more susceptible to irritating effects.

Diluted Product:

Eyes: Rinse with plenty of water. If irritation occurs and persists, get medical attention.

Skin: Rinse with plenty of water. If irritation occurs and persists, get medical attention.

Inhalation: No specific first aid measures are required.

Ingestion: Rinse mouth with water.

5. FIRE-FIGHTING MEASURES

Specific methods:

No special methods required

Suitable extinguishing media:

The product is not flammable. Extinguish fire using agent suitable for surrounding fire.

Specific hazards:

Not applicable.

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Extinguishing media which must not be used for safety reasons: No information available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Put on appropriate personal protective equipment (see Section 8.).

Environmental precautions and clean-up methods:

Clean-up methods - large spillage. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use a water rinse for final clean-up.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Do not taste or swallow. Remove and wash contaminated clothing and footwear before re-use. Product residue may remain on/in empty containers. All precautions for handling the product must be used in handling the empty container and residue. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

Storage:

Protect from freezing. Keep tightly closed in a dry, cool and well-ventilated place. KEEP OUT OF REACH OF CHILDREN.

Aerosol Level (if applicable) : Not applicable**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Exposure Guidelines:**

Ingredient(s)	CAS #	ACGIH	OSHA
Disodium 1-[2-[[[1-oxododecyl]amino]ethyl] 2-sulphonatosuccinate	25882-44-4	-	-
Sodium lauryl sulfate	151-21-3	-	-
1,2-Benzisothiazol-3(2H)-one	2634-33-5	-	-

Undiluted Product:**Engineering measures to reduce exposure:**

No special ventilation requirements General room ventilation is adequate

Personal Protective Equipment

Eye protection:	Chemical-splash goggles.
Hand protection:	Chemical-resistant gloves.
Skin and body protection:	No special protective clothing is required.
Respiratory protection:	No special protective clothing is required.
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice.

Diluted Product:**Personal Protective Equipment**

Eye protection:	No personal protective equipment required under normal use conditions.
Hand protection:	No personal protective equipment required under normal use conditions.
Skin and body protection:	No personal protective equipment required under normal use conditions.
Respiratory protection:	No personal protective equipment required under normal use conditions.
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES:**Physical State:** Liquid**Evaporation Rate:** No information available**Odor threshold:** No information available.**Melting point/range:** Not determined**Autoignition temperature:** No information available**Solubility in other solvents:** No information available**Density:** 8.65 lbs/gal 1.037 Kg/L**Bulk density:** No information available**Flash point:** > 200 °F > 93.3 °C**Dilution Flash Point:** 200 °F 93.3 °C**Elemental Phosphorus:** 0.00 % by wt.**pH:** 5.8**Dilution pH:** 7.0 @ 1:12**Metal Corrosion:** Not determined**Explosion limits: - upper:** Not determined **- lower:** Not determined**Color:** Clear, Pale, Straw**Odor:** Floral**Boiling point/range:** Not determined**Decomposition temperature:** Not determined**Solubility:** Completely Soluble**Relative Density (relative to water):** 1.037**Vapor density:** No information available**Vapor pressure:** No information available.**Partition coefficient (n-octanol/water):** No information available**Viscosity:** No information available**VOC:** 0.02 % ***VOC % by wt. at use dilution** 0 % ***Flammability (Solid or Gas):** Not applicable

* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

10. STABILITY AND REACTIVITY

Reactivity:	Not Applicable
Stability:	The product is stable
Hazardous decomposition products:	None reasonably foreseeable.
Materials to avoid:	Do not mix with any other product or chemical unless specified in the use directions.
Conditions to avoid:	No information available.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure:**

Dry Foam Shampoo & Encapsulation Cleaner

3 of 5

Eye contact, Skin contact, Inhalation, Ingestion

Delayed, immediate, or chronic effects and symptoms from short and long-term exposure

Skin contact: Causes skin irritation. Symptoms may include pain (which may be delayed), redness, and/or discomfort.

Eye contact: Corrosive. Causes serious eye damage. Symptoms may include pain, burning sensation, redness, watering, blurred vision or loss of vision.

Ingestion: Causes burns/ serious damage to mouth, throat and stomach. Symptoms may include stomach pain and nausea.

Inhalation: May cause irritation and corrosive effects to nose, throat and respiratory tract. Symptoms may include coughing and difficulty breathing.

Sensitization: No known effects.

Numerical measures of toxicity

ATE - Oral (mg/kg): >5000

ATE - Inhalatory, mists (mg/l): >20

12. ECOLOGICAL INFORMATION

Ecotoxicity: No information available.

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: This product, as sold, if discarded or disposed, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Dispose in compliance with all Federal, state, provincial, and local laws and regulations. This product, when diluted as stated on this SDS, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

Contaminated Packaging: Do not re-use empty containers.

RCRA Hazard Class (undiluted product): Not Regulated

RCRA Hazard Class (diluted product): Not Regulated

14. TRANSPORT INFORMATION

DOT/TDG/IMDG: Please refer to the Diversey HazMat Library, only available through Internet Explorer, <http://naextranet.diversey.com/dot/>, for up to date shipping information.

DOT (Ground) Bill of Lading Description: CLEANING, WASHING, BUFFING, OR POLISHING COMPOUNDS LIQUID

IMDG (Ocean) Bill of Lading Description: Same as DOT above.

15. REGULATORY INFORMATION

International Inventories at CAS# Level

All components of this product are listed on the following inventories: U.S.A. (TSCA), Canada (DSL/NDSL).

U.S. Regulations

California Proposition 65: This product is not subject to the reporting requirements under California's Proposition 65.

RIGHT TO KNOW (RTK)

Ingredient(s)	CAS #	MARTK:	NJRTK:	PARTK:	RIRTK:
Water	7732-18-5	-	-	-	-
Disodium 1-[2-[(1-oxododecyl)amino]ethyl]	25882-44-4	-	-	-	-

Dry Foam Shampoo & Encapsulation Cleaner

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2-sulphonatosuccinate					
Sodium lauryl sulfate	151-21-3	-	-	-	-
Dipropylene glycol	25265-71-8	-	-	X	-
Alcohols, c10-16	67762-41-8	-	-	-	-
1,2-Benzisothiazol-3(2H)-one	2634-33-5	-	-	-	-

CERCLA/ SARA

SARA 311/312 Hazard Categories

Immediate: X
 Delayed: -
 Fire: -
 Reactivity: -
 Sudden Release of Pressure: -

16. OTHER INFORMATION

NFPA (National Fire Protection Association)
 Rating Scale: (Low Hazard) 0 - 4 (Extreme Hazard)

Health 2
 Flammability 0
 Instability 0

Version Number: 3
 Preparation date: 2014-12-18

Reason for revision: Not applicable
 Prepared by: NAPRAC
 Additional advice:

- Contains an added fragrance, see "Odor" heading in section 9 for specific description
- This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations

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Crew Shower, Tub & Tile Cleaner HC

Version Number: 10

Preparation date: 2016-05-24

1. IDENTIFICATION

Product name: Crew Shower, Tub & Tile Cleaner HC
Product Code: 93063453, 93063461, 95220328, 100828357, 100875412, 100877913, 100877914
SDS #: MS0800270
Recommended use:

- Restroom Care
- This product is intended to be diluted prior to use

Uses advised against: Uses other than those identified are not recommended

Manufacturer, importer, supplier:

US Headquarters Sealed Air 8215 Forest Point Blvd. Charlotte, NC 28273-5509 Phone: 1-888-352-2249 SDS Internet Address: https://sds.sealedair.com	Canadian Headquarters Sealed Air - Canada 3755 Laird Road Mississauga, Ontario L5L 0B3 Phone: 1-800-668-7171
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Emergency telephone number: 1-800-851-7145 (U.S.); 1-651-917-6133 (Int'l)

2. HAZARDS IDENTIFICATION

Classification for the undiluted product

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Metal Corrosion:	Category 1

**Signal Word:****Danger.**

Precautionary Statements

CAUSES SKIN IRRITATION. CAUSES SERIOUS EYE DAMAGE. MAY BE CORROSIVE TO METALS.

Causes burns/ serious damage to mouth, throat and stomach. Avoid contact with eyes, skin and clothing. Keep container tightly closed. Keep only in original container. Wash affected areas thoroughly after handling. Wear chemical-splash goggles and chemical-resistant gloves. IF SWALLOWED: Rinse mouth. DO NOT induce vomiting unless directed to do so by medical personnel. Drink a cupful of milk or water. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Immediately call a Poison Center (1-800-851-7145) or physician. Take off contaminated clothing and wash it before reuse. Absorb spillage to prevent material damage. Store in corrosive-resistant container with a resistant inner liner. Dispose of in accordance with all federal, state and local applicable regulations. SUPPLEMENTAL INFORMATION: Mix only with water. DO NOT MIX WITH AMMONIA, BLEACH OR OTHER CHLORINATED COMPOUNDS. Can react to release hazardous gases. May vigorously react with strong alkaline products resulting in spattering and excessive heat.

Health hazards not otherwise classified (HHNOC) - Not applicable

Crew Shower, Tub & Tile Cleaner HC

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Supplyworks®

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Jacksonville FL 32203-9956
SDS Communication for your recent order



666 4 MB 1.335 E0010X I0164 D3926233291 S2 P5623023 0001:0021



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811213
00003

Physical hazards not otherwise classified (PHNOC) - Not applicable

Classification for the diluted product @ 1:40

This product, when diluted as stated on the label, is not classified as hazardous according to OSHA 29CFR 1910.1200 (HazCom 2012-GHS) and Canadian Hazardous Products Regulations (HPR) (WHMIS 2015-GHS).

Precautionary Statements

None required.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classified Ingredients

Ingredient(s)	CAS #	Weight %
Urea hydrochloride	506-89-8	20 - 30%
Alcohol ethoxylates	68439-46-3	10 - 20%
β-Alanine, N-(2-carboxyethyl)-N-dodecyl-, sodium salt	14960-06-6	1 - < 3%

*Exact percentages are being withheld as trade secret information

4. FIRST AID MEASURES

Undiluted Product:

Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes.

Skin: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion: IF SWALLOWED: Rinse mouth. DO NOT induce vomiting unless directed to do so by medical personnel. Drink a cupful of milk or water.

Most Important Symptoms/Effects: No information available.

Immediate medical attention and special treatment needed: Not applicable.

Aggravated Medical Conditions: Individuals with chronic respiratory disorders such as asthma, chronic bronchitis, emphysema, etc., may be more susceptible to irritating effects.

Diluted Product:

Eyes: Rinse with plenty of water. If irritation occurs and persists, get medical attention.

Skin: Rinse with plenty of water. If irritation occurs and persists, get medical attention.

Inhalation: No specific first aid measures are required.

Ingestion: Rinse mouth with water.

5. FIRE-FIGHTING MEASURES

Specific methods:

No special methods required

Suitable extinguishing media:

The product is not flammable. Extinguish fire using agent suitable for surrounding fire.

Specific hazards:

Not applicable.

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Extinguishing media which must not be used for safety reasons: No information available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Put on appropriate personal protective equipment (see Section 8.).

Environmental precautions and clean-up methods:

Clean-up methods - large spillage. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use a water rinse for final clean-up.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes and clothing. Do not taste or swallow. Avoid breathing vapors or mists. Use only with adequate ventilation. Wash thoroughly after handling. Remove and wash contaminated clothing and footwear before re-use. Product residue may remain on/in empty containers. All precautions for handling the product must be used in handling the empty container and residue. Mix only with water. DO NOT MIX WITH AMMONIA, BLEACH, OR OTHER CHLORINATED COMPOUNDS. May react to release hazardous gases. May vigorously react with strong alkaline products resulting in spattering and excessive heat. Corrosive to steel and aluminum. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.
Storage: Protect from freezing. Keep tightly closed in a dry, cool and well-ventilated place. KEEP OUT OF REACH OF CHILDREN.
Aerosol Level (if applicable) : Not applicable

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:

Ingredient(s)	CAS #	ACGIH	OSHA
Urea hydrochloride	506-89-8	-	-
Alcohol ethoxylates	68439-46-3	-	-
β-Alanine, N-(2-carboxyethyl)-N-dodecyl-, sodium salt	14960-06-6	-	-

Undiluted Product:

Engineering measures to reduce exposure:

Good general ventilation should be sufficient to control airborne levels Respiratory protection is not required if good ventilation is maintained.

Personal Protective Equipment

Eye protection:	Chemical-splash goggles.
Hand protection:	Chemical-resistant gloves.
Skin and body protection:	No personal protective equipment required under normal use conditions.
Respiratory protection:	No personal protective equipment required under normal use conditions.
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice.

Diluted Product:

Personal Protective Equipment

Eye protection:	No personal protective equipment required under normal use conditions.
Hand protection:	No personal protective equipment required under normal use conditions.
Skin and body protection:	No personal protective equipment required under normal use conditions.
Respiratory protection:	No personal protective equipment required under normal use conditions.
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid	Color: Clear, Fluorescent, Red
Evaporation Rate: No information available	Odor: Fresh
Odor threshold: No information available.	Boiling point/range: Not determined
Melting point/range: Not determined	Decomposition temperature: Not determined
Autoignition temperature: No information available	Solubility: Completely Soluble
Solubility in other solvents: No information available	Relative Density (relative to water): 1.095
Density: 9.13 lbs/gal 1.095 Kg/L	Vapor density: No information available
Bulk density: No information available	Vapor pressure: No information available.
Flash point: > 200 °F > 93.3 °C	Partition coefficient (n-octanol/water): No information available
Dilution Flash Point: 200 °F 93.3 °C	Viscosity: No information available
Elemental Phosphorus: 0.00 % by wt.	VOC: 0.04 % *
pH: 0.0	VOC % by wt. at use dilution 0 % *
Dilution pH: 1.29 @ 1:40	Flammability (Solid or Gas): Not applicable
Metal Corrosion: Category 1	
Explosion limits: - upper: Not determined - lower: Not determined	

* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

10. STABILITY AND REACTIVITY

Reactivity:	Not Applicable
Stability:	The product is stable
Possibility of hazardous reactions:	May vigorously react with strong alkaline products resulting in spattering and excessive heat.
Hazardous decomposition products:	None reasonably foreseeable.
Materials to avoid:	Ammonia. Oxidizing agents. Bases. Do not mix with chlorinated products (such as bleach). Corrosive to

steel and aluminum. Strong bases. Do not mix with any other product or chemical unless specified in the use directions.
Do not mix with any other product or chemical.

Conditions to avoid:

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Eye contact, Skin contact, Inhalation, Ingestion

Delayed, immediate, or chronic effects and symptoms from short and long-term exposure

Skin contact: Causes skin irritation. Symptoms may include pain (which may be delayed), redness, and/or discomfort.

Eye contact: Corrosive. Causes serious eye damage. Symptoms may include pain, burning sensation, redness, watering, blurred vision or loss of vision.

Ingestion: Causes burns/ serious damage to mouth, throat and stomach. Symptoms may include stomach pain and nausea.

Inhalation: May cause irritation and corrosive effects to nose, throat and respiratory tract. Symptoms may include coughing and difficulty breathing.

Sensitization: No known effects.

Target Organs (SE): None known

Target Organs (RE): None known

Carcinogen Listings: Statment per route of exposure or specific component None of the components in this product at \geq 0.1% are listed as a carcinogen by IARC, NTP or OSHA.

Numerical measures of toxicity

ATE - Oral (mg/kg): 2800

12. ECOLOGICAL INFORMATION

Ecotoxicity: No information available.

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: Undiluted product is regulated under environmental and transportation laws as a corrosive waste. Dispose of according to all federal, state and local applicable regulations. This product, when diluted as stated on this MSDS, is a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

Contaminated Packaging: Do not re-use empty containers.

RCRA Hazard Class (undiluted product): D002 Corrosive Waste

RCRA Hazard Class (diluted product): D002 Corrosive Waste

14. TRANSPORT INFORMATION

DOT/TDG/IMDG: Proper shipping descriptions can vary by pack size. Please refer to the Diversey HazMat Library, <http://naextranet.diversey.com/dot/>, for up to date shipping information.

DOT (Ground) Bill of Lading Description: UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., (urea hydrochloride), 8, III

IMDG (Ocean) Bill of Lading Description: UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., (urea hydrochloride), 8, III

15. REGULATORY INFORMATION

International Inventories at CAS# Level

All components of this product are listed on the following inventories: U.S.A. (TSCA), Canada (DSL/NDSL).

California Proposition 65: This product is not subject to the reporting requirements under California's Proposition 65.

Crew Shower, Tub & Tile Cleaner HC

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RIGHT TO KNOW (RTK)

Ingredient(s)	CAS #	MARTK:	NJRTK:	PARTK:	RIRTK:
Water	7732-18-5	-	-	-	-
Urea hydrochloride	506-89-8	-	-	-	-
Alcohol ethoxylates	68439-46-3	-	-	-	-
C9-11 alcohols, ethoxylated (6EO)	68439-46-3	-	-	-	-
β-Alanine, N-(2-carboxyethyl)-N-dodecyl-, sodium salt	14960-06-6	-	-	-	-
Diethyl phthalate	84-66-2	X	X	X	X

CERCLA/ SARA

Ingredient(s)	CAS #	Weight %	CERCLA/SARA RQ (lbs)	Section 302 TPQ (lbs)	Section 313
Diethyl phthalate	84-66-2	> 0.1 - < 1%	1000		

Ingredient(s)	CAA HAP	CAA ODS	CWA Priority Pollutants
Diethyl phthalate			X

SARA 311/312 Hazard Categories

Immediate:	X
Delayed:	-
Fire:	-
Reactivity:	-
Sudden Release of Pressure:	-

Canadian Regulations

Ingredient(s)	CAS #	NPRI
Diethyl phthalate	84-66-2	X

16. OTHER INFORMATION**NFPA (National Fire Protection Association)**

Rating Scale: (Low Hazard) 0 - 4 (Extreme Hazard)

Health 3
 Flammability 0
 Instability 0

Version Number: 10
 Preparation date: 2016-05-24

Reason for revision: Not applicable
 Prepared by: NAPRAC
 Additional advice: • Contains an added fragrance, see "Odor" heading in section 9 for specific description

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SAFETY DATA SHEET



GOJO® Green Certified Foam Hand Cleaner

Version 1.3 Revision Date: 02/10/2015 MSDS Number: 30606-00004 Date of last issue: 01/08/2015
Date of first issue: 11/19/2014

SECTION 1. IDENTIFICATION

Product name : GOJO® Green Certified Foam Hand Cleaner

Manufacturer or supplier's details

Company name of supplier : GOJO Industries, Inc.

Address : One GOJO Plaza, Suite 500
Akron OH 44311

Telephone : 1 (330) 255-6000

Emergency telephone : 1-800-424-9300 CHEMTREC

Recommended use of the chemical and restrictions on use

Recommended use : Skin-care

Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Eye irritation : Category 2A

GHS Label element

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H319 Causes serious eye irritation.

Precautionary Statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P280 Wear eye protection/ face protection.

Proper Shipping Name: Corrosive liquids, n.o.s., (contains sodium hydroxide)
Hazard Class: 8
Packing Group: II

15. REGULATORY INFORMATION

TSCA Status: (Toxic Substance Control Act Section 8(b) Inventory)

All chemical substances in this product are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

SARA 313

This product contains the following listed substances:

2-butoxyethanol

CAS No 111-76-2 applies to R-(OCH₂CH₂)_n-OR', where n = 1, 2, or 3, R=Alkyl C7 or less, or R = Phenyl or Alkyl substituted phenyl, R' = H or Alkyl C7 or less, or OR' consisting of Carboxylic acid ester, Sulfate, Phosphate, Nitrate, or Sulfonate, Chemical Category N230

SARA 311/312 Hazard Categories

Acute Health Hazard:	Yes
Chronic Health Hazard:	Yes
Fire Hazard:	No
Sudden release of pressure hazard:	No
Reactive Hazard:	No

California Proposition 65

This product is not subject to warning requirements under California Proposition 65.

16. OTHER INFORMATION

NFPA	Health Hazards: 3	Flammability: 0	Instability: 0	Special: N/A
HMIS	Health Hazards: 3*	Flammability: 0	Physical Hazards: 0	

Revision Date: 09-Mar-2016
Reasons for Revision: Revised formula

Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

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SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water spray
Alcohol-resistant foam
Dry chemical
Carbon dioxide (CO₂)
- Unsuitable extinguishing media : None known.
- Specific hazards during fire fighting : Exposure to combustion products may be a hazard to health.
- Hazardous combustion products : Sulfur oxides
Carbon oxides
Metal oxides
Nitrogen oxides (NO_x)
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.
-

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Follow safe handling advice and personal protective equipment recommendations.
- Environmental precautions : Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material.
For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
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Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous ingredients

Chemical Name	CAS-No.	Concentration (%)
Alcohols, C10-16, ethoxylated, sulfates, sodium salts	68585-34-2	>= 1 - < 5
Cocoamidopropyl betaine	61789-40-0	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
 When symptoms persist or in all cases of doubt seek medical advice.
- If inhaled : If inhaled, remove to fresh air.
 Get medical attention if symptoms occur.
- In case of skin contact : Wash with water and soap as a precaution.
 Get medical attention if symptoms occur.
- In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
 If easy to do, remove contact lens, if worn.
 Get medical attention.
- If swallowed : If swallowed, DO NOT induce vomiting.
 Get medical attention if symptoms occur.
 Rinse mouth thoroughly with water.
- Most important symptoms and effects, both acute and delayed : Causes serious eye irritation.
- Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.
- Notes to physician : Treat symptomatically and supportively.

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Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
- Local/Total ventilation : Use only with adequate ventilation.
- Advice on safe handling : Avoid inhalation of vapor or mist.
Do not swallow.
Do not get in eyes.
Avoid prolonged or repeated contact with skin.
Handle in accordance with good industrial hygiene and safety practice.
Take care to prevent spills, waste and minimize release to the environment.
- Conditions for safe storage : Keep in properly labeled containers.
Store in accordance with the particular national regulations.
- Materials to avoid : Do not store with the following product types:
Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Hazardous components without workplace control parameters

Ingredients	CAS-No.
Alcohols, C10-16, ethoxylated, sulfates, sodium salts	68585-34-2
Cocoamidopropyl betaine	61789-40-0

- Engineering measures : Ensure adequate ventilation, especially in confined areas.
Minimize workplace exposure concentrations.

Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.

- Hand protection
Material : Impervious gloves

- Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often!
For special applications, we recommend clarifying the

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- resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.
- Eye protection : Wear the following personal protective equipment:
Safety goggles
- Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).
- Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.
-

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Color : clear, Colorless to pale yellow
- Odor : soapy
- Odor Threshold : No data available
- pH : 4.7 - 6.2
- Melting point/freezing point : No data available
- Solidification / Setting point : 2.4 °C
- Initial boiling point and boiling range : 100 °C
- Flash point : > 100 °C
- Evaporation rate : No data available
- Flammability (solid, gas) : Not applicable
- Upper explosion limit : No data available
- Lower explosion limit : No data available
- Vapor pressure : No data available
- Relative vapor density : No data available
- Density : 1.00 g/cm³
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Solubility(ies)
Water solubility : soluble

Partition coefficient: n-
octanol/water : Not applicable

Autoignition temperature : No data available

Decomposition temperature : The substance or mixture is not classified self-reactive.

Viscosity
Viscosity, kinematic : 10 - 20 mm²/s (20 °C)

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reac-
tions : Can react with strong oxidizing agents.

Conditions to avoid : None known.

Incompatible materials : Oxidizing agents

Hazardous decomposition
products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Ingredients:

Alcohols, C10-16, ethoxylated, sulfates, sodium salts:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute oral
toxicity

Cocoamidopropyl betaine:

Acute oral toxicity : LD50: > 5,000 mg/kg
Method: OECD Test Guideline 401
Remarks: Based on data from similar materials

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Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Based on data from similar materials

Skin corrosion/irritation

Not classified based on available information.

Product:

Result: No skin irritation

Ingredients:

Alcohols, C10-16, ethoxylated, sulfates, sodium salts:

Result: Skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Result: Irritation to eyes, reversing within 21 days

Ingredients:

Alcohols, C10-16, ethoxylated, sulfates, sodium salts:

Result: Irreversible effects on the eye

Cocoamidopropyl betaine:

Species: Rabbit

Result: Irreversible effects on the eye

Method: OECD Test Guideline 405

Remarks: Based on data from similar materials

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

Product:

Assessment: Does not cause skin sensitization.

Ingredients:

Cocoamidopropyl betaine:

Test Type: Maximization Test (GPMT)

Routes of exposure: Skin contact

Species: Guinea pig

Result: negative

Remarks: Based on data from similar materials

Germ cell mutagenicity

Not classified based on available information.

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Ingredients:

Cocoamidopropyl betaine:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo
cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Carcinogenicity

Not classified based on available information.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Ingredients:

Cocoamidopropyl betaine:

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative
Remarks: Based on data from similar materials

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Repeated dose toxicity

Ingredients:

Cocoamidopropyl betaine:

Species: Rat
NOAEL: 250 mg/kg
Application Route: Ingestion

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Exposure time: 90 d
Method: OECD Test Guideline 408
Remarks: Based on data from similar materials

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ingredients:

Cocoamidopropyl betaine:

Toxicity to fish : LC50: > 1 - 10 mg/l
Exposure time: 96 h
Method: ISO 7346/2
Remarks: Based on data from similar materials

Toxicity to bacteria : EC50: > 100 mg/l
Method: OECD Test Guideline 209
Remarks: Based on data from similar materials

Persistence and degradability

Ingredients:

Alcohols, C10-16, ethoxylated, sulfates, sodium salts:

Biodegradability : Result: Readily biodegradable.

Cocoamidopropyl betaine:

Biodegradability : Result: Readily biodegradable.
Biodegradation: > 60 %
Exposure time: 28 d
Method: OECD Test Guideline 301
Remarks: Based on data from similar materials

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.
Empty containers should be taken to an approved waste

SAFETY DATA SHEET



GOJO® Green Certified Foam Hand Cleaner

Version	Revision Date:	MSDS Number:	Date of last issue: 01/08/2015
1.3	02/10/2015	30606-00004	Date of first issue: 11/19/2014

handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulation

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Pennsylvania Right To Know

Water	7732-18-5	90 - 100 %
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New Jersey Right To Know

Water	7732-18-5	90 - 100 %
Alcohols, C10-16, ethoxylated, sulfates, sodium salts	68585-34-2	1 - 5 %
Cocoamidopropyl betaine	61789-40-0	1 - 5 %

California Prop 65 This product does not contain any chemicals known to the

SAFETY DATA SHEET



GOJO® Green Certified Foam Hand Cleaner

Version 1.3 Revision Date: 02/10/2015 MSDS Number: 30606-00004 Date of last issue: 01/08/2015
 Date of first issue: 11/19/2014

State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

AICS : All ingredients listed or exempt.

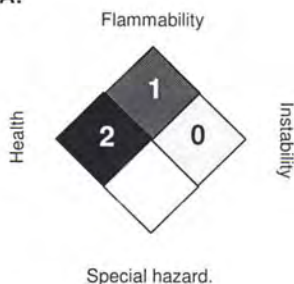
Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), NECSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
 2 = Moderate, 3 = High
 4 = Extreme, * = Chronic

Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Revision Date : 02/10/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

US / Z8

**GOJO® Clear & Mild Foam Handwash**

Version 1.0

SDS Number: 400000000152

Revision Date: 09/20/2016

SECTION 1. IDENTIFICATION

Product name : GOJO® Clear & Mild Foam Handwash

Manufacturer or supplier's details

Company name of supplier : GOJO Industries, Inc.

Address : One GOJO Plaza, Suite 500
Akron, Ohio 44311

Telephone : 1 (330) 255-6000

Emergency telephone number : 1-800-424-9300 CHEMTREC

Recommended use of the chemical and restrictions on use

Recommended use : Skin-care

Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Eye irritation : Category 2B

GHS label elements

Signal word : Warning

Hazard statements : H320 Causes eye irritation.

Precautionary statements : **Response:**
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.

Supplyworks®

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Jacksonville FL 32203-9956
SDS Communication for your recent order



705 2 MB 0.423 E0015X I0098 D2767076527 S2 P4562561 0001:0006



YAMHILL CARLTON SCHOOL DIST
120 N LARCH PL
YAMHILL OR 97148-8667

08/23/17

Enclosed, please find Safety Data Sheets for your recent orders: 9307555
You can find a complete library of more than 11,000 data sheets at our web site www.supplyworks.com
If you have any questions, please contact Customer Service at 866-412-6726

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GOJO® Clear & Mild Foam Handwash

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Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Hazardous components**

Chemical name	CAS-No.	Concentration (%)
Sodium Laureth Sulfate	68585-34-2	>= 1 - < 5
Glycerin	56-81-5	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.
- If inhaled : If inhaled, remove to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Wash with water and soap as a precaution.
Get medical attention if irritation develops and persists.
- In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Seek medical advice.
- If swallowed : If swallowed, DO NOT induce vomiting.
Rinse mouth with water.
Obtain medical attention.
- Most important symptoms and effects, both acute and delayed : Causes eye irritation.
- Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : None known.
- Hazardous combustion products : Sulphur oxides
Carbon oxides
Nitrogen oxides (NO_x)
Metal oxides



GOJO® Clear & Mild Foam Handwash

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- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use a water spray to cool fully closed containers.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
Material can create slippery conditions.
- Environmental precautions : Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Keep in suitable, closed containers for disposal.
Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8.
Do not swallow.
Avoid contact with eyes.
Keep container closed when not in use.
- Conditions for safe storage : Keep in properly labelled containers.
Keep container tightly closed in a dry and well-ventilated place.
Store in accordance with the particular national regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of)	Control parameters / Permissible	Basis


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		exposure)	concentration	
Glycerin	56-81-5	TWA (mist, respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (mist, total dust)	15 mg/m3	OSHA Z-1

Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.
- Eye protection : No special measures necessary provided product is used correctly.
Wear face-shield and protective suit for abnormal processing problems.
- Skin and body protection : No special measures necessary provided product is used correctly.
- Protective measures : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Ensure that eye flushing systems and safety showers are located close to the working place.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
Avoid contact with eyes.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Colour : clear, colourless, light yellow
- Odour : like soap
- Odour Threshold : No data available
- pH : 5.3 - 6.7, (20 °C)
- Solidification / Setting point : 1.4 °C
- Initial boiling point and boiling range : 98 °C
- Flash point : > 100 °C
- Evaporation rate : No data available
- Flammability (solid, gas) : Not applicable
- Upper explosion limit : No data available


GOJO® Clear & Mild Foam Handwash

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Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Density	: 1.012 g/cm ³
Solubility(ies)	
Water solubility	: soluble
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: not determined
Thermal decomposition	: The substance or mixture is not classified self-reactive.
Viscosity	
Viscosity, kinematic	: 10 - 20 mm ² /s (20 °C)
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION
Information on likely routes of exposure

Skin contact
 Eye contact
 Inhalation

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
 Method: Calculation method

**GOJO® Clear & Mild Foam Handwash**

Version 1.0

SDS Number: 400000000152

Revision Date: 09/20/2016

Components:**Sodium Laureth Sulfate:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity

Glycerin:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Assessment: Not irritating when applied to human skin.
Result: No skin irritation

Components:**Sodium Laureth Sulfate:**

Result: Skin irritation

Glycerin:

Result: No skin irritation

Serious eye damage/eye irritation

Causes eye irritation.

Product:

Result: Mild eye irritation

Components:**Sodium Laureth Sulfate:**

Result: Eye irritation
Remarks: Severe eye irritation

Glycerin:

Result: No eye irritation

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Components:**Glycerin:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Carcinogenicity


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Not classified based on available information.

Components:
Glycerin:

Species: Rat

Application Route: Ingestion

Exposure time: 2 Years

Result: negative

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:
Glycerin:

Effects on fertility

: Test Type: Two-generation reproduction toxicity study

Species: Rat

Application Route: Ingestion

Result: negative

Effects on foetal development

: Test Type: Embryo-foetal development

Species: Rabbit

Application Route: Ingestion

Result: negative

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity
Components:
Sodium Laureth Sulfate:

Repeated dose toxicity - Assessment

: Causes serious eye irritation.

Glycerin:

Species: Rat


GOJO® Clear & Mild Foam Handwash

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NOAEL: 167 mg/m³
 LOAEL: 660 mg/m³
 Application Route: inhalation (dust/mist/fume)
 Exposure time: 13 w
 Symptoms: Local irritation

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION
Ecotoxicity**Components:****Glycerin:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 54,000 mg/l
 Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1,955 mg/l
 Exposure time: 48 h

Toxicity to bacteria : NOEC (Pseudomonas putida): > 10,000 mg/l
 Exposure time: 16 h

Persistence and degradability**Components:****Sodium Laureth Sulfate:**

Biodegradability : Result: Readily biodegradable.

Glycerin:

Biodegradability : Result: Readily biodegradable.
 Biodegradation: 94 %
 Exposure time: 1 d

Bioaccumulative potential**Components:****Glycerin:**

Partition coefficient: n-octanol/water : log Pow: -1.76

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation : 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks : This product neither contains, nor was manufactured with a


GOJO® Clear & Mild Foam Handwash

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Class I or Class II ODS as defined by the U.S. Clean Air Act
Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal methods

- Waste from residues : Dispose of in accordance with local regulations.
- Contaminated packaging : Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION
International Regulation
IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

National Regulations
49 CFR

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION
EPCRA - Emergency Planning and Community Right-to-Know Act
CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

Glycerin	56-81-5	1.75 %
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This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

Glycerin	56-81-5	1 - 5 %
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Pennsylvania Right To Know

Water (Aqua)	7732-18-5	90 - 100 %
Glycerin	56-81-5	1 - 5 %

New Jersey Right To Know

Water (Aqua)	7732-18-5	90 - 100 %
Sodium Laureth Sulfate	68585-34-2	1 - 5 %
Glycerin	56-81-5	1 - 5 %

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

CH INV	: On the inventory, or in compliance with the inventory
TSCA	: On the inventory, or in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL.
AICS	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory

Inventories

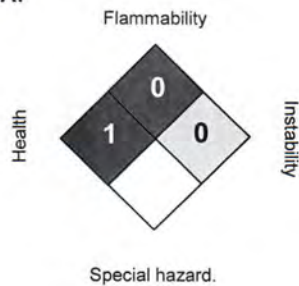
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)


GOJO® Clear & Mild Foam Handwash

Version 1.0

SDS Number: 400000000152

Revision Date: 09/20/2016

SECTION 16. OTHER INFORMATION
Further information
NFPA:

HMIS III:

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
 2 = Moderate, 3 = High
 4 = Extreme, * = Chronic

Revision Date : 09/20/2016

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**GOJO® Clear & Mild Foam Handwash**

Version 1.0

SDS Number: 400000000152

Revision Date: 09/20/2016

SECTION 1. IDENTIFICATION

Product name : GOJO® Clear & Mild Foam Handwash

Manufacturer or supplier's details

Company name of supplier : GOJO Industries, Inc.

Address : One GOJO Plaza, Suite 500
Akron, Ohio 44311

Telephone : 1 (330) 255-6000

Emergency telephone number : 1-800-424-9300 CHEMTREC

Recommended use of the chemical and restrictions on use

Recommended use : Skin-care

Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Eye irritation : Category 2B

GHS label elements

Signal word : Warning

Hazard statements : H320 Causes eye irritation.

Precautionary statements : **Response:**
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.

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SDS Communication for your recent order



509 2 FP 0.453 E0006X I0036 D2930155797 S2 P4730187 0001:0008



YAMHIL CARLTON INTERMEDIATE
310 E MAIN ST
YAMHILL OR 97148-8641

10/13/17

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GOJO® Clear & Mild Foam Handwash

Version 1.0

SDS Number: 400000000152

Revision Date: 09/20/2016

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS
Hazardous components

Chemical name	CAS-No.	Concentration (%)
Sodium Laureth Sulfate	68585-34-2	>= 1 - < 5
Glycerin	56-81-5	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

General advice	: In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.
If inhaled	: If inhaled, remove to fresh air. If symptoms persist, call a physician.
In case of skin contact	: Wash with water and soap as a precaution. Get medical attention if irritation develops and persists.
In case of eye contact	: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Seek medical advice.
If swallowed	: If swallowed, DO NOT induce vomiting. Rinse mouth with water. Obtain medical attention.
Most important symptoms and effects, both acute and delayed	: Causes eye irritation.
Protection of first-aiders	: First Aid responders should pay attention to self-protection and use the recommended protective clothing

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	: None known.
Hazardous combustion products	: Sulphur oxides Carbon oxides Nitrogen oxides (NO _x) Metal oxides


GOJO® Clear & Mild Foam Handwash

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- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use a water spray to cool fully closed containers.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
Material can create slippery conditions.
- Environmental precautions : Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Keep in suitable, closed containers for disposal.
Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8.
Do not swallow.
Avoid contact with eyes.
Keep container closed when not in use.
- Conditions for safe storage : Keep in properly labelled containers.
Keep container tightly closed in a dry and well-ventilated place.
Store in accordance with the particular national regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Components with workplace control parameters

Components	CAS-No.	Value type (Form of)	Control parameters / Permissible	Basis


GOJO® Clear & Mild Foam Handwash

Version 1.0

SDS Number: 40000000152

Revision Date: 09/20/2016

		exposure)	concentration	
Glycerin	56-81-5	TWA (mist, respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (mist, total dust)	15 mg/m3	OSHA Z-1

Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.
- Eye protection : No special measures necessary provided product is used correctly.
Wear face-shield and protective suit for abnormal processing problems.
- Skin and body protection : No special measures necessary provided product is used correctly.
- Protective measures : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Ensure that eye flushing systems and safety showers are located close to the working place.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
Avoid contact with eyes.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Colour : clear, colourless, light yellow
- Odour : like soap
- Odour Threshold : No data available
- pH : 5.3 - 6.7, (20 °C)
- Solidification / Setting point : 1.4 °C
- Initial boiling point and boiling range : 98 °C
- Flash point : > 100 °C
- Evaporation rate : No data available
- Flammability (solid, gas) : Not applicable
- Upper explosion limit : No data available


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Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Density	: 1.012 g/cm ³
Solubility(ies)	
Water solubility	: soluble
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: not determined
Thermal decomposition	: The substance or mixture is not classified self-reactive.
Viscosity	
Viscosity, kinematic	: 10 - 20 mm ² /s (20 °C)
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION
Information on likely routes of exposure

Skin contact
 Eye contact
 Inhalation

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
 Method: Calculation method

**GOJO® Clear & Mild Foam Handwash**

Version 1.0

SDS Number: 400000000152

Revision Date: 09/20/2016

Components:**Sodium Laureth Sulfate:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity

Glycerin:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Assessment: Not irritating when applied to human skin.

Result: No skin irritation

Components:**Sodium Laureth Sulfate:**

Result: Skin irritation

Glycerin:

Result: No skin irritation

Serious eye damage/eye irritation

Causes eye irritation.

Product:

Result: Mild eye irritation

Components:**Sodium Laureth Sulfate:**

Result: Eye irritation

Remarks: Severe eye irritation

Glycerin:

Result: No eye irritation

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Components:**Glycerin:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Carcinogenicity


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Not classified based on available information.

Components:
Glycerin:

Species: Rat

Application Route: Ingestion

Exposure time: 2 Years

Result: negative

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:
Glycerin:

Effects on fertility

: Test Type: Two-generation reproduction toxicity study

Species: Rat

Application Route: Ingestion

Result: negative

Effects on foetal development

: Test Type: Embryo-foetal development

Species: Rabbit

Application Route: Ingestion

Result: negative

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity
Components:
Sodium Laureth Sulfate:

Repeated dose toxicity - Assessment

: Causes serious eye irritation.

Glycerin:

Species: Rat


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NOAEL: 167 mg/m³
 LOAEL: 660 mg/m³
 Application Route: inhalation (dust/mist/fume)
 Exposure time: 13 w
 Symptoms: Local irritation

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION
Ecotoxicity**Components:****Glycerin:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 54,000 mg/l
 Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1,955 mg/l
 Exposure time: 48 h

Toxicity to bacteria : NOEC (Pseudomonas putida): > 10,000 mg/l
 Exposure time: 16 h

Persistence and degradability**Components:****Sodium Laureth Sulfate:**

Biodegradability : Result: Readily biodegradable.

Glycerin:

Biodegradability : Result: Readily biodegradable.
 Biodegradation: 94 %
 Exposure time: 1 d

Bioaccumulative potential**Components:****Glycerin:**

Partition coefficient: n-octanol/water : log Pow: -1.76

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation : 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks : This product neither contains, nor was manufactured with a


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Class I or Class II ODS as defined by the U.S. Clean Air Act
Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal methods

- Waste from residues : Dispose of in accordance with local regulations.
- Contaminated packaging : Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION
International Regulation
IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

National Regulations
49 CFR

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION
EPCRA - Emergency Planning and Community Right-to-Know Act
CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

Glycerin	56-81-5	1.75 %
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This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

Glycerin	56-81-5	1 - 5 %
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Pennsylvania Right To Know

Water (Aqua)	7732-18-5	90 - 100 %
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Glycerin	56-81-5	1 - 5 %
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New Jersey Right To Know

Water (Aqua)	7732-18-5	90 - 100 %
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Sodium Laureth Sulfate	68585-34-2	1 - 5 %
------------------------	------------	---------

Glycerin	56-81-5	1 - 5 %
----------	---------	---------

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

CH INV	: On the inventory, or in compliance with the inventory
TSCA	: On the inventory, or in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL.
AICS	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory

Inventories

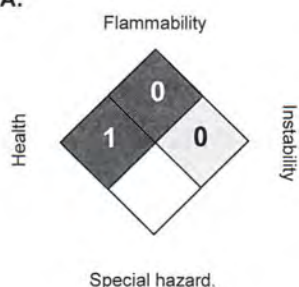
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)


GOJO® Clear & Mild Foam Handwash

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SECTION 16. OTHER INFORMATION
Further information
NFPA:

HMIS III:

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
 2 = Moderate, 3 = High
 4 = Extreme, * = Chronic

Revision Date : 09/20/2016

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



The Clorox Company
1221 Broadway
Oakland, CA 94612
Tel. (510) 271-7000

Material Safety Data Sheet

I Product: CLOROX CLEAN-UP CLEANER WITH BLEACH		
Description: CLEAR, FAINT YELLOW LIQUID WITH CHARACTERISTIC BLEACH ODOR		
Other Designations	Distributor	Emergency Telephone Nos.
Clorox Clean-Up Clorox Clean-Up – Fresh Scent Clean-Up Dilutable	Clorox Sales Company 1221 Broadway Oakland, CA 94612	For Medical Emergencies call: (800) 446-1014 For Transportation Emergencies Chemtrac (800) 424-9300

II Health Hazard Data

Moderate eye irritant. Mild to moderate skin irritant. Occasional clinical reports suggest a low potential for skin sensitization upon exaggerated exposure to sodium hypochlorite if skin damage (e.g., irritation) occurs during exposure. Routine clinical tests conducted on intact skin with this product found no sensitization in the test subjects. Exposure to vapor or mist may irritate eyes, nose, throat, lungs. Harmful if swallowed. May cause nausea and vomiting if swallowed. The following medical conditions may be aggravated by exposure to high concentrations of vapor or mist: heart conditions or chronic respiratory problems such as asthma, emphysema, chronic bronchitis or obstructive lung disease. Under normal consumer-use conditions, the likelihood of any adverse health effects is low.

FIRST AID:

EYE CONTACT: Remove any contact lenses, and flush eyes thoroughly with water for 15 minutes. If irritation persists, call a physician.

SKIN CONTACT: Remove contaminated clothing; wash affected skin with water.

IF BREATHING IS AFFECTED: Get fresh air immediately.

IF SWALLOWED: Drink a glass of water. Call a physician.

III Hazardous Ingredients

Ingredient	Concentration	Worker Exposure Limit
Sodium hypochlorite CAS #7681-52-9	1-5%	none established
Sodium hydroxide CAS #1310-73-2	0.5-2%	2 mg/m ³ , Ceiling-TLV 2 mg/m ³ , Ceiling-Federal OSHA PEL

TLV = Threshold Limit Value Source: ACGIH 1992-1993
PEL = Permissible Exposure Limit Source: OSHA

None of the ingredients in this product are on the IARC, OSHA or NTP carcinogen lists.

IV Special Protection and Precautions

Hygienic Practices: Do not get in eyes or on clothing. Avoid prolonged or repeated skin contact. Avoid prolonged breathing of vapor. Use only in well-ventilated areas.

Personal Protection: Wear safety glasses. For sensitive skin or repeated/prolonged use, wear gloves.

Ventilation: Use general ventilation to minimize exposure to gases or aerosols associated with this product.

V Transportation and Regulatory Data

U.S. DOT Hazard Class: Not restricted

U.S. DOT Proper Shipping Name: Compound, cleaning, liquid

EPA SARA TITLE III/CERCLA: This product contains no chemicals regulated under Section 313 and contains sodium hydroxide (CAS # 1310-73-2, <1%) which is regulated under Section 304/CERCLA. Packaged product may be regulated under Sections 311/312 of SARA Title III.

TSCA - All chemicals in this product are listed on the TSCA Inventory

VI Spill Procedures/Waste Disposal

Spill Procedures: Absorb and containerize. Wash down residual to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

Waste Disposal: Dispose of in accordance with all applicable federal, state, and local regulations.

VII Reactivity Data

Stable under normal use and storage conditions. Strong oxidizing agent. Reacts with other household chemicals such as toilet bowl cleaners, rust removers, acids or ammonia-containing products to produce hazardous gases, such as chlorine and other chlorinated compounds. Prolonged contact with metal or old porcelain may cause pitting or discoloration.

VIII Fire and Explosion Data

Flashpoint: greater than 200°F

Fire Extinguishing Agents: Water spray, dry chemical or carbon dioxide (CO₂).

Special Fire-Fighting Procedures: None

Usual Fire and Explosion Hazards: None

IX Physical Data

Appearance: Clear, faint yellow liquid
Odor: Characteristic bleach odor
pH: 12.4 - 12.8
Solubility in water: Completely soluble
Specific gravity (water = 1): 1.034 at 25 °C



Spartan Chemical Company, Inc.
Material Safety Data Sheet

SECTION I: PRODUCT INFORMATION

Product Name or Number (as it appears on label):
DMQ DAMP MOP NEUTRAL DISINFECTANT CLEANER
Product Number: 1062

Product Division:
Janitorial

Spartan Chemical Company, Inc.
1110 Spartan Drive
Maumee OH 43537

Product/Technical Information: 1-(800)-537-8990
Medical Emergency: 1-(888)-314-6171 (24 hours)
Chemical Leak/Spill Emergency: CHEMTREC 1-(800) 424-9300 (24 hours)

Shipping Description: Non Hazardous Products

NFPA Ratings:	HMIS Ratings:
Health: 3 - Serious Fire: 0 - Minimal Reactivity: 0 - Minimal	Health: 3 - Serious Fire: 0 - Minimal Reactivity: 0 - Minimal Pers. Prot. Equip.: See Section VIII

SECTION II: HAZARDOUS INGREDIENTS

(Listed when present at 1% or greater, carcinogens at 0.1% or greater) All component chemicals are listed or exempted from listing on the "TSCA Inventory" of chemical substances maintained by the U.S. Environmental Protection Agency.

Chemical Name(s)	%Wt	CAS Registry No.	Table Z-1-A			NTP, IARC or OSHA Carcinogen
			TWA mg/m ³	STEL mg/m ³	CEILING mg/m ³	
Alcohol ethoxylate	1-5	68439-46-3	Not Established	Not Established	Not Established	No
Isopropyl alcohol	1-5	67-63-0	980	1225	Not Established	No
Alkyl dimethyl benzyl ammonium chloride	1-5	68424-85-1	Not Established	Not Established	Not Established	No
	-	-	-	-	-	-

SECTION III: PHYSICAL DATA

Boiling Point: 210 °F	Vapor Pressure: Unknown
Vapor Density (AIR = 1): Unknown	Solubility in Water: Complete
pH: 5.0-6.0	Specific Gravity (H ₂ O=1): 1.00
Evaporation Rate (but.ace.=1): <1	Percent Solid by Weight: 5-10
Physical State: Liquid	
Appearance & Odor: Yellow liquid, lemon fragrance.	

SECTION IV: FIRE & EXPLOSIVE HAZARD DATA

Flash Point: > 200°F	Method Used: ASTM-D56
Flammable Limits: N/A	Flame Extension: N/A
Extinguishing Media: Product does not support combustion. Use extinguishing media appropriate for surrounding fire.	
Special Fire Fighting Procedures: Wear NIOSH approved self-contained breathing apparatus and protective clothing. Cool fire-exposed containers with water spray.	
Unusual Fire & Explosive Hazards: Combustion products are toxic.	

SECTION V: HEALTH HAZARD DATA

Threshold Limit Value:	Not Established	Primary Routes of Entry:	Inhalation, Skin Contact, Eyes & Oral
Effects of Overexposure- Conditions to Avoid:	CORROSIVE: CAUSES IRREVERSIBLE EYE DAMAGE: Symptoms may include pain, redness, swelling of the conjunctiva and tissue damage. HARMFUL TO SKIN: Causes skin irritation with symptoms of pain, redness and possible chemical burns. Harmful if absorbed through the skin. HARMFUL IF SWALLOWED: Symptoms may include nausea, vomiting, pain and diarrhea. INHALATION OF SPRAY MIST MAY CAUSE RESPIRATORY IRRITATION: Breathing spray mist may cause coughing and difficulty breathing. Do not get in eyes, on skin or clothing. Do not taste or swallow. Avoid inhalation of spray mist. Wash thoroughly with soap and water after handling .		
Conditions Aggravated by Use:	Use of this product may aggravate preexisting skin; eye and respiratory disorders including asthma and dermatitis.		
Emergency & First Aid Procedures:			
Eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses after the first 5 minutes then continue rinsing eye. Call a poison control center or doctor for treatment advice.		
Skin:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash contaminated clothing before reuse.		
Ingestion:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.		
Inhalation:	In case of respiratory irritation; move person to fresh air. Get medical attention if irritation persists.		
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.			

SECTION VI: REACTIVITY DATA

Stability:	Stable	Incompatible Materials:	Strong oxidizers
Hazardous Decomposition Products:	CO, CO ₂	Hazardous Polymerization:	Will Not Occur

SECTION VII: SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled:	Small spills of one gallon or less may be flushed with plenty of water to sanitary sewer system (if permitted by local sewer regulations). Dike and contain large spills with inert material and transfer liquid to containers for recovery or disposal.
Waste Disposal Method:	Same as above. Container disposal: Triple rinse (or equivalent) then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incinerate, or if allowed by state and local authorities, burn. If burned, stay out of smoke.

SECTION VIII: SPECIAL PROTECTION INFORMATION

Respiratory Protection:	Not normally required when good general ventilation is provided. However, if exposure limits (see Section II) are exceeded or respiratory irritation occurs, use of a NIOSH approved respirator suitable for the use-conditions and chemicals in Section II should be considered.
Ventilation:	Provide good general ventilation. Local exhaust ventilation may be necessary for some operations.
Protective Gloves(Specify Type):	Rubber or other impervious gloves are recommended.
Eye Protection(Specify Type):	Splash goggles are recommended when handling undiluted product.
Other Protective Equipment:	Eye wash stations and washing facilities should be readily accessible in areas where undiluted product is handled.. See 29 CFR 1910.132-138 for further guidance.

SECTION IX: SPECIAL PRECAUTIONS

Precautions; Handling & Storing:	Keep from freezing.
Other Precautions:	Keep out of reach of children.

© SCC 06/01/2013

DMQ DAMP MOP NEUTRAL
DISINFECTANT CLEANER

Ref: 29 CFR 1910.1200 (OSHA)

Name: Ronald T. Cook
Effective Date: 06/01/2013

Changes: General Review

Title: Manager, Regulatory Affairs
Supersedes: 09/23/2010

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MT. HOOD CHEMICAL CORPORATION (MT. HOOD SOLUTIONS)

14546 N. Lombard
 Portland, Oregon 97203
 Emergency Phone: 503-227-3505

N/A = NOT APPLICABLE
 NA = NOT AVAILABLE

MATERIAL SAFETY DATA SHEET
 PRODUCT NAME: EVER DRY

DATE PRINTED: 10/1/2010

PRODUCT NAME: **EVER DRY** PREPARED BY: K. Woods DATE: October 6, 1999

CHEMICAL FAMILY: Synthetic Detergent Mixture FORMULA: Proprietary

HAZARDOUS INGREDIENTS (CAS #):	%	EXPOSURE LIMITS, ppm:	ACGIH TLV	OSHA-PEL
None	N/A		N/A	N/A

CARCINOGENIC INGREDIENTS: Contains no known or suspected carcinogens.
 SARA TITLE III, SECTION 313 REPORTABLE INGREDIENTS: None

PHYSICAL PROPERTIES:

Boiling Point: About 200°F	% Volatiles: NA
Solubility in Water: 100%	% Volatile Organic Content (VOC): 0
Specific Gravity - Liquid (H ₂ O = 1): 1.00-1.01	Vapor Pressure: N/A
Odor and Appearance: Clear blue liquid; mild odor	Vapor Density (Air = 1): N/A

FIRE AND EXPLOSION DATA:

Flash Point: None	Flammability Limits: N/A
Extinguishing Media: Water, CO ₂ , foam, dry chemical	Unusual Hazards: None
Special Firefighting Procedures: None	

HEALTH EFFECTS:

Effects of overexposure: Contains concentrated detergents. May cause temporary minor eye irritation. Prolonged skin contact may cause minor irritation or dryness in some sensitive individuals. Ingestion may cause nausea and diarrhea.
 Chronic effects of overexposure: None known or expected.
 Medical conditions that may be aggravated by exposure: None known or expected.
 Primary routes of entry: Ingestion, skin contact

EMERGENCY AND FIRST AID PROCEDURES:

Eye Contact: Flush thoroughly with plenty of water for several minutes. If irritation persists, see a physician.
 Skin Contact: Flush thoroughly from skin with water.
 Ingestion: Drink plenty of water and call a physician immediately.
 Inhalation of mist or vapor: N/A

REACTIVITY DATA:

Stability: Stable	Hazardous Polymerization: Will not occur
Incompatibility: None	Conditions to Avoid: None
Hazardous Decomposition Products: None	

SPILL OR LEAKAGE PROCEDURES:

Steps to be taken if material is released or spilled:
 Flush to sewer with plenty of water, mop up, or absorb on an absorbent. Scrub floor well to remove residue to prevent slipperiness.
 Waste disposal method: According to local, state, or federal ordinances.

SPECIAL PROTECTION INFORMATION:

Ventilation: NA
 Respiration Protection: None required
 Eye Protection: None required
 Protective Gloves: None required
 Other Protective Equipment: None required

SPECIAL PRECAUTIONS:

Precautions to be taken in handling and storage: Store in closed container in a dry place. Wash thoroughly after handling.
KEEP OUT OF REACH OF CHILDREN.
 Other precautions: None

HAZARD RATING:

Health:	0	0 = Minimal	3 = Serious
Fire:	0	1 = Slight	4 = Severe
Reactivity:	0	2 = Moderate	
Specific Hazard:	N/A		

P R O D U C T I N F O R M A T I O N

EVER DRY - HARD WATER RINSE ADDITIVE

GENERAL DESCRIPTION:

EVER DRY is a concentrated rinse additive for the automatic dishmachine specially formulated for hard water conditions. **EVER DRY** lowers the surface tension of the rinse water so that water sheets away. Eliminates streaks and water spots, leaving sparkling glasses, china and silverware.

PROPERTIES:

Form:	Liquid
Color:	Blue
Odor:	Mild

USE DIRECTIONS:

EVER DRY is injected automatically into the rinse cycle with a rinse injector. Requirements in the rinse cycle are water pressure of 10 psi minimum at the rinse jets, and 170°F water temperature. Your Mt. Hood Solutions sales representative will adjust the rinse injector for optimum performance.

CAUTION:

May cause eye irritation. For contact with eyes, flush with plenty of water. If eye irritation persists; see a physician. Wash after handling. Do not ingest. Consult the Material Safety Data Sheet for additional precautions.

KEEP OUT OF REACH OF CHILDREN.

PACKAGING:

5 gal. pail
4x1 gal. / case

12/06

Material Safety Data Sheet

RELIANCE LIQUID POT & PAN DETERGENT



RELIANCE LIQUID POT & PAN DETERGENT

November 2012

1. Product and company identification

Trade name of product : RELIANCE LIQUID POT & PAN DETERGENT
 Product use : Manual Warewashing Detergent

Product dilution information : Up to 1 oz/gal or 7.8 mL/L in water

Supplier's information : Sysco Corporation
 1390 Enclave Parkway
 Houston, Texas 77077
 To request MSDS, call: 877-822-5101
 www.sysco.com

Code : 914087

Date of issue : 19-November-2012

EMERGENCY HEALTH INFORMATION: 1-800-328-0026
 Outside United States and Canada CALL 1-651-222-5352 (in USA)

2. Hazards identification

Product AS SOLD
 Physical state : Liquid.
 Emergency overview : CAUTION !
 MAY CAUSE EYE IRRITATION.
 Avoid contact with eyes. Wash thoroughly after handling.

Product AT USE DILUTION
 Liquid.
 CAUTION !
 No specific hazard.
 No specific hazard.

Potential acute health effects

Product AS SOLD
 Eyes : Moderately irritating to eyes.
 Skin : No known significant effects or critical hazards.
 Inhalation : No known significant effects or critical hazards.
 Ingestion : No known significant effects or critical hazards.

Product AT USE DILUTION
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.

See toxicological information (Section 11)

3. Composition/information on ingredients

Product AS SOLD

Name	CAS number	% by weight
poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-hydroxy-, c10-16-alkyl ethers, sodium salts	68585-34-2	1 - 5
COCAMINE OXIDE	61788-90-7	1 - 5

Product AT USE DILUTION

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting, in accordance with local regulations.

4. First aid measures

	Product AS SOLD	Product AT USE DILUTION
Eye contact	: In case of contact, immediately flush eyes with plenty of water. Remove contact lenses and flush again. Get medical attention if irritation persists.	No known effect after eye contact. Rinse with water for a few minutes.
Skin contact	: No known effect after skin contact. Rinse with water for a few minutes.	No known effect after skin contact. Rinse with water for a few minutes.
Inhalation	: No special measures required. Treat symptomatically.	No special measures required. Treat symptomatically.
Ingestion	: Get medical attention if symptoms occur.	Get medical attention if symptoms occur.

5. Fire-fighting measures

Product AS SOLD
 Hazardous thermal decomposition products : Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide
 halogenated compounds
 metal oxide/oxides

Fire-fighting media and instructions : Use an extinguishing agent suitable for the surrounding fire.
 Dike area of fire to prevent runoff.
 In a fire or if heated, a pressure increase will occur and the container may burst.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

	Product AS SOLD	Product AT USE DILUTION
Personal precautions	: Use personal protective equipment as required.	Use personal protective equipment as required.
Environmental precautions	: Avoid contact of large amounts of spilled material and runoff with soil and surface waterways.	Avoid contact of large amounts of spilled material and runoff with soil and surface waterways.
Methods for cleaning up	: Use a water rinse for final clean-up.	Use a water rinse for final clean-up.

7. Handling and storage

	Product AS SOLD	Product AT USE DILUTION
Handling	: Avoid contact with eyes. Wash thoroughly after handling.	Wash thoroughly after handling.
Storage	: Keep out of reach of children. Store in a closed container. Store between the following temperatures: 0 and 40°C	Keep out of reach of children.

8. Exposure controls/personal protection

	Product AS SOLD	Product AT USE DILUTION
Engineering measures	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Personal protection		
Eyes	: Safety eyewear should be used when there is a likelihood of exposure.	No protective equipment is needed under normal use conditions.

8. Exposure controls/personal protection

Hands : No protective equipment is needed under normal use conditions.
Skin : No protective equipment is needed under normal use conditions.
Respiratory : No special protection is required.

Consult local authorities for acceptable exposure limits.

No protective equipment is needed under normal use conditions.
 No protective equipment is needed under normal use conditions.
 No special protection is required.

9. Physical and chemical properties

Product AS SOLD
Physical state : Liquid.
Flash point : > 100°C
 Product does not support combustion.
Color : pink [Light]
Odor : Fragrance-like
pH : 7 to 10 [Conc. (% w/w): 100%]
Boiling/condensation point : >100°C (>212°F)
Relative density : 1.016 to 1.036
Solubility : Easily soluble in the following materials: cold water and hot water.

Product AT USE DILUTION
 Liquid.
 > 100°C
 pink [Light]
 Fragrance-like.
 7.7 to 8.2

10. Stability and reactivity

Product AS SOLD
Stability : The product is stable. Under normal conditions of storage and use, hazardous polymerization will not occur.
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.

11. Toxicological information

Potential acute health effects

Product AS SOLD
Eyes : Moderately irritating to eyes.
Skin : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Product AT USE DILUTION
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.

12. Ecological information

Ecotoxicity : Not reported

13. Disposal considerations

Product AS SOLD
Waste disposal : Diluted product can be flushed to sanitary sewer. Discard empty container in trash.

Product AT USE DILUTION
 Diluted product can be flushed to sanitary sewer. Discard empty container in trash.

14. Transport information

Certain shipping modes or package sizes may have exceptions from the transport regulations. The classification provided may not reflect those exceptions and may not apply to all shipping modes or package sizes.

Product AS SOLD
DOT
 DOT Classification : Not regulated.
IMO/MDG
 IMO/MDG Classification : Not regulated.

For transport in bulk, see shipping documents for specific transportation information.

Product AT USE DILUTION
 Not intended for transport.

15. Regulatory information

Product AS SOLD
HCS Classification : Irritating material

Product AT USE DILUTION
 Not regulated.

Product AS SOLD

U.S. Federal regulations

TSCA 8(b) inventory : All components are listed or exempted.
SARA 302/304/311/312 extremely hazardous substances: No listed substance
SARA 302/304 emergency planning and notification: No listed substance

SARA 313 : Product name : CAS number : Concentration

Form R - Reporting requirements : No listed substance

California Prop. 65 : No listed substance

16. Other information

Product AS SOLD
Hazardous Material Information System (U.S.A.)

Health	1
Flammability	0
Physical hazards	0

Product AT USE DILUTION

Health	0
Flammability	0
Physical hazards	0

National Fire Protection Association (U.S.A.)



MATERIAL SAFETY DATA SHEET

IN CASE OF EMERGENCY CALL CHEMTREC AT 1-800-424-9300

1. PRODUCT IDENTIFICATION AND COMPANY IDENTIFICATION:

Product Name: **PROVON® Clear & Mild Foam Handwash**

Company Name & Address: GOJO Industries, Inc.
One GOJO Plaza, Suite 500
Akron, OH 44311

Emergency Phone: 1-800-424-9300 CHEMTREC

Non-Emergency Phone: (330) 255-6000

MSDS Request Phone: (330) 255-6000 x8804

2. INFORMATION ON INGREDIENTS:

HAZARDOUS INGREDIENTS	CAS NUMBER	OSHA PEL	ACGIH TLV	% RANGE
Glycerin, as mist	56-81-5	TWA: 5 mg/m ³	TWA: 10 mg/m ³	< 5

Other ingredient(s) with notification requirements:	CAS NUMBER	List
Glycerin, as mist	56-81-5	MA 1; NJ; PA 1

3. HAZARDS IDENTIFICATION:

EMERGENCY OVERVIEW

When used according to instructions, the product applicable to this MSDS is safe and presents no immediate or long-term health hazard. However, abnormal entry routes, such as gross ingestion, may require immediate medical attention.

Potential Health Effects:

HMIS: Health 1 Flammability 1 Reactivity 0 Personal Protection None

Eye Contact: May cause eye irritation.
Skin Contact: No irritation or reaction expected.
Inhalation: Not applicable.
Ingestion: May cause upset stomach, nausea (Abnormal entry route).
Carcinogenicity: Not listed as a carcinogen by NTP, IARC, OSHA or ACGIH.

4. FIRST AID MEASURES:

Eye Contact: Do not rub eyes. Flush eyes thoroughly with water for 15 minutes. If condition worsens or irritation persists, contact physician.
Skin Contact: Not applicable.
Inhalation: Not applicable.
Ingestion: Do not induce vomiting. Contact a physician or Poison Control Center.

5. FIRE FIGHTING MEASURES:NFPA: Health 0 Fire 1 Reactivity 0

Flashpoint °F/°C (PMCC method): Not Determined

Unusual Fire and Explosion Hazards: None known.

Special Fire Fighting Procedures: None known.

Extinguishing Media: Water Fog Alcohol Foam CO₂ Dry Chemical Other**6. ACCIDENTAL RELEASE MEASURES:**

No special requirements. Water clean up and rinse. CAUTION – WILL CAUSE SLIPPERY SURFACES.

7. HANDLING AND STORAGE:

Store at normal room temperature away from reach of small children. Keep containers sealed. Use older containers first. Avoid freezing conditions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Eye Protection: None required under normal conditions.

Skin Protection: None required under normal conditions.

Respiratory Protection: None required under normal conditions.

Ventilation: None required under normal conditions.

Protective Equipment or Clothing: None required under normal conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance and Odor Clear liquid, fragrance-free

pH (undiluted): 4.7 – 6.2

VOC, %: < 1%

10. STABILITY AND REACTIVITY:

Stable/Non reactive product.

11. TOXICOLOGICAL INFORMATION:

No acute or chronic toxic effects expected when used according to directions.

12. ECOLOGICAL CONSIDERATIONS:

No ecological or special considerations when used according to directions. Not considered environmentally harmful from normal dilution, expected usage and typical drainage to sewers, septic systems and treatment plants.

13. DISPOSAL CONSIDERATIONS:

No special considerations when disposed according to local, state and Federal regulations.

14. TRANSPORT INFORMATION:

Not classified as a hazardous material.

15. REGULATORY AND OTHER INFORMATION:

TSCA: All ingredients are listed or exempt per reference 15 USC 2602 (2)(B)(iv).

Complies with current FDA regulations for cosmetic and/or over-the-counter drug products.

WHMIS: not controlled

Notice: The information herein is based on data considered to be accurate as of the date of preparation of this material safety data sheet. However, no warranty or representation, expressed or implied, is made as to the accuracy or completeness of the foregoing data and safety information. The user assumes all liability for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.

EYES AND SKIN: IF TABLET DUST GETS IN EYES OR ON SKIN, FLUSH WITH PLENTY OF WATER. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION.

INGESTION: IF TABLETS ARE SWALLOWED, DRINK PROMPTLY A LARGE QUANTITY OF WATER. AVOID ALCOHOL. GET MEDICAL ATTENTION IMMEDIATELY.

NOTE TO PHYSICIAN: PROBABLE MUCOSAL DAMAGE MAY CONTRAINDICATE THE USE OF GASTRIC LAVAGE. MEASURES AGAINST CIRCULATORY SHOCK, RESPIRATORY DEPRESSION AND COMA MAY BE NEEDED.

INHALATION PROCEDURE: SAME AS FOR INGESTION
 TOXICITY: ACUTE ORAL TOXICITY IN MICE IN 24 HOURS:

LD50mg/kg = 760 +/- 148.

NOTE: INDIVIDUAL TABLETS WEIGH 1.5 GRAMS EACH. TABLETS CONTAIN AN INGREDIENT THAT TASTES EXTREMELY BITTER, ESPECIALLY TO CHILDREN, TO HELP REDUCE THE CHANCE OF ACCIDENTAL INGESTION OF ENOUGH TABLETS TO BE HARMFUL.

SANITIZING SOLUTIONS PRODUCED WITH THESE TABLETS AT THE CONCENTRATION LEVEL SPECIFIED BY LABEL DIRECTIONS ARE CONSIDERED TO BE NON HAZARDOUS TO MAN OR THE ENVIRONMENT AND ARE IN COMPLIANCE WITH REGULATIONS OF THE EPA AND FDA.

THERE ARE NO CHEMICALS CONTAINED IN THIS PRODUCT THAT ARE LISTED AS CARCINOGENS OR POTENTIAL CARCINOGENS UNDER THE NATIONAL TOXICOLOGY PROGRAM, I.A.R.C. MONOGRAPHS, OR OSHA.

SECTION 7. SPILL OR LEAK PROCEDURES

THIS PRODUCT, BEING IN SOLID, TABLET FORM, DOES NOT INVOLVE THE HAZARDS OF SPILLS OR LEAKS ASSOCIATED WITH HANDLING LIQUID OR POWDERED-TYPE PRODUCTS.

WASTE DISPOSAL METHOD: THIS PRODUCT IS INTENDED FOR USE IN COMMERCIAL AND INSTITUTIONAL DISHWASHING OPERATIONS AND MAY BE DISPOSED OF WITH WASH WATER INTO THE SANITARY SEWAGE SYSTEM. PRODUCT IS BIODEGRADABLE. DO NOT REUSE EMPTY CONTAINER, WRAP CONTAINER AND PUT IN TRASH.

RCRA HAZARDOUS WASTE CLASS: NON-HAZARDOUS

SECTION 8. SPECIAL PROTECTION/HANDLING INFORMATION

RESPIRATORY PROTECTION: NO
 PROTECTIVE CLOTHING/GLOVES: NO
 VENTILATION: NO
 EYE PROTECTION: NO

OTHER HANDLING PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN STORAGE. STORE IN DRY PLACE. KEEP CONTAINER CLOSED WHEN NOT IN USE.

DO NOT CONTAMINATE FOOD BY STORAGE OR DISPOSAL.

SECTION 9. SARA TITLE III

THIS PRODUCT IS NOT SUBJECT TO THE TOXIC CHEMICAL REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1996 AND 40 CFR PART 372.

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Page 2

MT. HOOD CHEMICAL CORPORATION
444 N.W. Yeon Avenue
Portland, Oregon 97210
Emergency Phone: 503-227-3505

MATERIAL SAFETY DATA SHEET
PRODUCT NAME: SUPER TRIO

N/A = NOT APPLICABLE
NA = NOT AVAILABLE

PRODUCT NAME: SUPER TRIO PREPARED BY: K. Woods DATE: August 31, 1995

CHEMICAL FAMILY: Alkaline Detergent Mixture FORMULA: Proprietary

HAZARDOUS INGREDIENTS (CAS #):	%	EXPOSURE LIMITS, ppm: ACGIH TLV	OSHA-PEL
Sodium metasilicate (6834-92-0)	Less than 25%	N/A	N/A
Sodium carbonate (49-71-98)	Less than 25%	N/A	N/A
Sodium dichloroisocyanurate (2893-78-9)	Less than 5%	N/A	N/A

MUTAGENIC INGREDIENTS: Contains no known or suspected carcinogens.
GHS P201, SECTION 313 REPORTABLE INGREDIENTS: None

PHYSICAL PROPERTIES:

Boiling Point: N/A	% Volatiles: N/A
Solubility in Water: Appreciable	% Volatile Organic Content (VOC): 0
Specific Gravity - Liquid (H ₂ O = 1): N/A	Vapor Pressure: N/A
Odor and Appearance: White granules; chlorine odor	Vapor Density (Air = 1): N/A

FLAMMABLE AND EXPLOSION DATA:

Flash Point: None	Flammability Limits: N/A
Extinguishing Media: Water, CO ₂ , foam, dry chemical	
Special Firefighting Procedures: None	
Unusual Hazards: None	

HEALTH EFFECTS:

Effects of overexposure: May cause eye or skin irritation. Ingestion may cause nausea or diarrhea. Ingestion may also cause irritation or burns to mouth, throat, and esophagus. Inhalation of dust may cause irritation to the respiratory tract.

Chronic effects of overexposure: None known or expected.

Medical conditions that may be aggravated by exposure: None known or expected.

Primary routes of entry: Ingestion, skin contact, inhalation of dust.

EMERGENCY AND FIRST AID PROCEDURES:

Eye Contact: Flush thoroughly with plenty of water for several minutes. If irritation persists, see a physician.

Skin Contact: Flush thoroughly from skin with water. If irritation persists, see a physician.

Ingestion: Drink plenty of water and call a physician immediately. DO NOT INDUCE VOMITING UNLESS INSTRUCTED BY A PHYSICIAN.

Inhalation of dust: Move to fresh air if dust causes discomfort. If discomfort persists, see a physician.

REACTIVITY DATA:

Stability: Stable	Hazardous Polymerization: Will not occur
Incompatibility: Acids, ammonia	
Hazardous Decomposition Products: None	
Conditions to Avoid: None	

PURIFICATION OR LEAKAGE PROCEDURES:

Steps to be taken if material is released or spilled: Sweep up and place in a closed container.

Waste disposal method: According to local, state, or federal ordinances.

SPECIAL PROTECTION INFORMATION:

Ventilation: No special ventilation required. Use dust mask if dusty.

Respiration Protection: None required under normal use.

Eye Protection: Safety glasses or goggles recommended, especially in dusty area.

Protective Gloves: Impervious gloves are recommended for prolonged or repeated handling or for individuals with sensitive skin.

Other Protective Equipment: None required.

SPECIAL PRECAUTIONS:

Precautions to be taken in handling and storage:
Store in closed container in a dry place. Wash thoroughly after handling.

KEEP OUT OF REACH OF CHILDREN.

Other precautions: None required.

HAZARD RATING

Health: 2	0 = Minimal	3 = Serious
Flammability: 0	1 = Slight	4 = Severe
Reactivity: 0	2 = Moderate	

49156

P R O C E D U R E I N F O R M A T I O N

04 SEP 29 AM 10:04

SUPER TRIO - DISHMACHINE COMPOUND

GENERAL DESCRIPTION:

SUPER TRIO is a heavy-duty, chlorinated dishmachine powder that is safe on aluminum. SUPER TRIO removes grease, tough food soils, and lipstick from tableware, glasses, and flatware. SUPER TRIO destains as it washes - removes coffee and fruit stains from cups and bowls. Contains water conditioners and rinse aids for spot-free glasses and flatware. Safe on aluminum and galvanized utensils.

<u>PROPERTIES:</u>	Form:	Granular
	Color:	White
	Odor:	Chlorine

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USE DIRECTIONS:

SUPER TRIO is poured into the soap dispenser and is automatically fed into the dishmachine as it is needed. The MT. HOOD CHEMICAL representative will adjust the dispenser to optimize performance.

CAUTION:

Contains sodium metasilicate. May cause eye or skin burns. For contact with skin or eyes, flush thoroughly with plenty of water for at least 15 minutes. For eyes, see a physician. Do Not Ingest. Consult the Material Safety Data Sheet for additional precautions.

KEEP OUT OF REACH OF CHILDREN.

<u>PACKAGING:</u>	350 lb. drum
	150 lb. keg
	50 lb. box
	30x2 lb. bags / case

11/95

MATERIAL SAFETY DATA SHEET

State Chemical Division – State Industrial Products
100 Hamilton Avenue, Cleveland, OH 44114 (216) 861-7114

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **WILDCAT DEGREASER**
Product Description: A formulated water-based all-purpose degreaser.

24 Hour Emergency CHEMTREC Number: 800-424-9300
MSDS Number: M00640

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Ingredients</u>	<u>CAS Number</u>	<u>Weight</u>	<u>ACGIH</u>	<u>OSHA</u>
Dipropylene Glycol Monomethyl Ether	34590-94-8	< 7.0%	100 ppm	100 ppm
Sodium Metasilicate	6834-92-0	< 3.0%	NE	NE
Polyoxyethylene Isodecyl Ether Phosphate	108818-88-8	< 4.0%	1 mg/m ³	1 mg/m ³
Ethoxylated Alcohols	66455-14-9	< 2.0%	NE	NE
Linear Alcohol Ethoxylates	34398-01-1	< 5.0%	NE	NE
Trisodium Hydroxyethylethylenediaminetriacetate	139-89-9	< 3.0%	NE	NE

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

May be harmful if swallowed. May cause eye, skin and respiratory irritation.

POTENTIAL HEALTH EFFECTS

Eye Contact: May cause eye irritation.
Skin Contact: May cause skin irritation. Avoid prolonged skin contact.
Inhalation: May cause irritation of the respiratory tract.
Ingestion: May be harmful if swallowed. May cause gastro-intestinal disturbances, vomiting, nausea.
General: May aggravate existing lung and skin conditions.

4. FIRST AID MEASURES

Eye Contact: Promptly flush with a large amount of water for at least 15 minutes. If irritation persists, consult a physician.
Skin Contact: Promptly wash with soap and water and rinse thoroughly. Remove contaminated clothing and launder before reuse. If irritation persists, consult a physician.
Inhalation: Remove to fresh air. Restore breathing if necessary. If irritation persists, consult a physician.
Ingestion: Give two glasses of water. Do not induce vomiting. Never give anything to an unconscious person. Contact a physician immediately.

FIRE FIGHTING MEASURES

Flashpoint: None to boiling point by TCC.
Lower Explosive Limit(LEL): NA Upper Explosive Limit(UEL): NA Autoignition Temperature: NA
Flammable Properties: NA
Extinguishing Media: Carbon Dioxide, water, dry chemical and foam.
Fire Fighting Instructions: Wear self-contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Ventilate area. Remove ignition sources. Halt spill at source, dike and contain. Use absorbent to pick up residue and transfer to proper container. Avoid discharge to natural waters. Dispose of in accordance with all Federal, State and Local Regulations regarding waste disposal.

7. HANDLING AND STORAGE

This product is for industrial use only. Use with adequate ventilation. Wash thoroughly after handling. Do not take internally. Empty product containers may contain product residue. Avoid contact with skin, eyes and clothing. Do not mix with other chemicals. Keep out of reach of children. Keep containers closed when not in use. Store in a well-ventilated, cool, dry area. Do not store with strong oxidizers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Use general or local ventilation to keep exposure levels below exposure limits.
Personal Protective Equipment:
Respiratory: If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted approved respirator.
Eye: Wear approved safety glasses or goggles with unperforated sideshields.
Skin: Wear chemically impervious gloves.
Other: An emergency eyewash station or source of clean potable water should be available in case of accidental eye contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear grape.	Odor:	Sweet.
Physical State:	Liquid.	pH:	10.9 – 11.3 @1:20
Boiling Point:	212°F	Freezing/Melting Point:	NA
Solubility in Water:	Complete.	Specific Gravity:	1.050 – 1.060.
Density:	~8.75 lbs/gal	VOC Content:	NA
VOC Content:	< 4%	Evaporation Rate:	NA

10. STABILITY AND REACTIVITY

Stability: Stable.
Hazardous Polymerization: Will not occur.
Conditions to Avoid: None expected.
Incompatibility: None expected.
Hazardous Decomposition Products: Carbon Dioxide, Carbon Monoxide.

11. TOXICOLOGICAL INFORMATION

IARC / NTP / OSHA: This product contains no ingredient at 0.1% or greater that is listed as a human carcinogen.

<u>Hazardous Ingredients</u>	<u>CAS Number</u>	<u>LD50</u>	<u>LC50</u>
Dipropylene Glycol Monomethyl Ether	34590-94-8	5.35 g/kg (oral rat)	10000 mg/l/96 hr (fathead minnow)
Sodium Metasilicate	6834-92-0	1280 mg/kg (oral rat)	NE
Polyoxyethylene Isodecyl Ether Phosphate	108818-88-8	NE	NE
Ethoxylated Alcohols	66455-14-9	4.6 g/kg (oral rat)	NE
Linear Alcohol Ethoxylates	34398-01-1	0.7-1.7 g/kg (oral rat)	NE
Trisodium Hydroxyethylethylenediaminetriacetate	139-89-9	NE	NE

12. ECOLOGICAL INFORMATION

NA

13. DISPOSAL CONSIDERATIONS

Do not reuse empty containers. Dispose of in accordance with all Federal, State, and Local Regulations regarding pollution and waste disposal.

14. TRANSPORT INFORMATION

DOT SHIPPING DATA: Not Regulated.
CANADIAN TDG: Not available for sale in Canada.

15. REGULATORY INFORMATION

TSCA: All ingredients in this product are listed or exempt from listing on the TSCA Chemical Inventory.
CEPA: All ingredients in this product are listed or exempt from listing on the Canadian DSL/NDL.
Proposition 65: This product may contain trace amounts of the following chemicals that are known to the state of California to cause cancer, birth defects or other reproductive harm.

Ethylene Oxide	75-21-8	< 1 ppm
1,4 Dioxane	123-91-1	< 2 ppm
Formaldehyde	50-00-0	< 5 ppm
Trisodium Nitritotriacetate	5064-31-3	< 0.1%

VOC: This product as regulated by California and other states, is classified as a "General Purpose Degreaser " with a maximum VOC content of 4%.

SARA 313: This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40CFR372):
Glycol Ethers 5%

HMIS RATING: HEALTH = 2 FLAMMABILITY = 0 REACTIVITY = 0 PPE = B

WHMIS RATING: Not available for sale in Canada.

16. OTHER INFORMATION

NA = Not available or Not applicable
NE = Not established

Read and follow all label directions and precautions before using the product. This product is intended for industrial and institutional use only. NOT FOR HOUSEHOLD USE OR RESALE. KEEP OUT OF THE REACH OF CHILDREN. While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts, the data are not to be taken as a warranty or representation for which the company assumes legal responsibility. They are offered solely for your consideration, investigation, and verification. Any use of these data and information must be determined by the user to be in accordance with applicable Federal, State, and Local Laws and regulations.

HEALTH AND SAFETY INFORMATION: (216) 861-7114

Prepared On: July 2012

Replaces: July 2009

Completed By: Regulatory Affairs

Suitable extinguishing media: The product is not flammable. Extinguish fire using agent suitable for surrounding fire.
 Specific hazards: Not applicable
 Unusual hazards: Decomposition releases oxygen, which may intensify fire.
 Specific methods: No special methods required

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
 Extinguishing media which must not be used for safety reasons: No information available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment
 Environmental precautions and clean-up methods: Use appropriate containment to avoid environmental contamination. Clean-up methods - large spillage. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use a water rinse for final clean-up.

7. HANDLING AND STORAGE

Handling: Do not taste or swallow. Avoid contact with skin, eyes and clothing. Wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet and after handling product. Remove and wash contaminated clothing and footwear before re-use. Mix only with water. DO NOT MIX WITH AMMONIA, BLEACH, OR OTHER CHLORINATED COMPOUNDS. May react to release hazardous gases. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.
 Storage: Store in well-ventilated area. Keep from freezing. Do not contaminate food or feed by storage or disposal. KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures to reduce exposure: None known

Personal Protective Equipment

Eye protection: Chemical-splash goggles.
 Hand protection: No special requirements under normal use conditions
 Skin and body protection: No special requirements under normal use conditions
 Respiratory protection: No special requirements under normal use conditions
 Hygiene measures: Handle in accordance with good industrial hygiene and safety practice

Ingredient(s)	CAS #	ACGIH	OSHA	Mexico
Phosphoric acid	7664-38-2	3 mg/m ³ (STEL) 1 mg/m ³ (TWA)	1 mg/m ³ (TWA)	3 mg/m ³ (STEL) 1 mg/m ³ (TWA)
Hydrogen peroxide	7722-84-1	1 ppm (TWA)	1 ppm (TWA) 1.4 mg/m ³ (TWA)	2 ppm (STEL) 3 mg/m ³ (STEL) 1 ppm (TWA) 1.5 mg/m ³ (TWA)

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
 Appearance: Liquid Aqueous solution
 Specific gravity: 1.036
 Vapor density: No information available
 Boiling point/range: Not determined
 Decomposition temperature: Not determined
 Solubility: Completely Soluble
 Solubility in other solvents: No information available
 Partition coefficient (n-octanol/water): No information available
 Elemental Phosphorus: 1.12 % by wt.
 pH: 0.8
 Explosion limits: - upper: Not determined - lower: Not determined

Bulk density: No information available
 Evaporation Rate: No information available
 Color: Clear Colorless
 Odor: Citrus
 Melting point/range: Not determined
 Autoignition temperature: No information available
 Density: 8.67 lbs/gal 1.04 Kg/L
 Flash point: > 200 °F > 93.4 °C
 Viscosity: No information available
 VOC: 8.32 % *
 Dilution pH: 2.05 @ 1:64

* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

10. STABILITY AND REACTIVITY

Stability: The product is stable
 Polymerization: Hazardous polymerization does not occur

Hazardous decomposition products: Oxygen.
Materials to avoid: Incompatible with bases. Ammonia. Oxidizing agents. Do not mix with chlorinated products (such as bleach).
Conditions to avoid: Do not mix with any other product or chemical .

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Oral LD50 estimated to be between 500 - 5000 mg/kg. Dermal LD50 estimated to be > 2000 mg/kg.
Component Information: See Section 3
Chronic toxicity: None known
Specific effects
Carcinogenic effects: None known
Mutagenic effects: None known
Reproductive toxicity: None known
Target organ effects: None known

12. ECOLOGICAL INFORMATION

Environmental Information: No data available

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food, or feed by storage or disposal
Waste from residues / unused products:
 This product, as sold, if discarded or disposed, is a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Dispose in compliance with all Federal, state, provincial, and local laws and regulations.
Pesticide Storage:
 Store in original container in areas inaccessible to children. Open dumping is prohibited. Do not reuse empty container
Pesticide Disposal:
 Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law
Container Disposal:
 Pesticide product disposal requirements vary by package size and type. Pesticides include disinfectants and sanitizers. See product label for complete disposal instructions. Always dispose of according to all federal, state and local applicable regulations.
 RCRA Hazard Class: D002 Corrosive Waste.

14. TRANSPORT INFORMATION

DOT/TDG/IMDG: Please refer to the Diversey HazMat Library, <http://naextranet.diversey.com/dot/>, for up to date shipping information.
DOT (Ground) Bill of Lading Description: DISINFECTANTS
IMDG (Ocean) Bill of Lading Description: DISINFECTANTS

15. REGULATORY INFORMATION

International Inventories at CAS# Level
 All components of this product are listed on the following inventories: U.S.A. (TSCA)

U.S. Regulations

EPA Reg. No. : 70627-62
 California Proposition 65: This product is not subject to the reporting requirements under California's Proposition 65

CERCLA/ SARA

Ingredient(s)	CAS #	Weight %	CERCLA/SARA RQ (lbs)	Section 302 TPQ (lbs)	Section 313
Phosphoric acid	7664-38-2	1 - 5%	5000		
Hydrogen peroxide	7722-84-1	1 - 5%		1000	

SARA 311/312 Hazard Categories

Immediate:	X
Delayed:	-
Fire:	-
Reactivity:	-
Sudden Release of Pressure:	-

16. OTHER INFORMATION

Reason for revision:	Not applicable
Prepared by:	NAPRAC
Additional advice:	• Contains an added fragrance, see "Odor" heading in section 9 for specific description

Notice to Reader: This document has been prepared using data from sources considered technically reliable. It does not constitute a warranty, express or implied, as to the accuracy of the information contained within. Actual conditions of use and handling are beyond seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

Procter & Gamble

Professional[®]

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name PGP Comet Deodorizing Cleanser with Chlorinol
Product Code 95408362
Version # 02
Revision date 10-15-2013
Manufacturer Procter & Gamble Professional
Address 2 P&G Plaza
Cincinnati
Ohio
45202
US
P&G Telephone Number: 1-800-332-7787
Emergency 24-hr Telephone #: CHEMTREC 1-800-424-9300

2. Hazards Identification

Potential health effects

Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.
Eyes Accidental exposure will cause a mild but transient irritation.
Skin May cause transient irritation. Prolonged or repeated contact may be drying to skin.
Inhalation May be irritating.
Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Potential environmental effects

Considering the limited amount applied during use and the size of the container, the risk of adverse effects is considered minimal.

3. Composition / Information on Ingredients

Components	CAS #	Percent
CALCIUM CARBONATE	471-34-1	60-100
SODIUM CARBONATE	497-19-8	7-13
CALCIUM HYDROXIDE	1305-62-0	1-5
Sodium Dichloro-s Triazinetrione Dihydrate	51580-86-0	1-5

4. First Aid Measures

First aid procedures

Eye contact After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if symptoms persist.
Skin contact Wash affected area with mild soap and water. Rinse with plenty of water. Get medical attention if irritation develops and persists.
Inhalation Move to fresh air. Call a physician if symptoms develop or persist.
Ingestion Drink 1 or 2 glasses of water. Do not induce vomiting without advice from poison control center or doctor. Get medical attention if any discomfort continues.

5. Fire Fighting Measures

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not contaminate water.

Extinguishing media

Suitable extinguishing media Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Protection of firefighters

Protective equipment and precautions for firefighters Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

6. Accidental Release Measures

Personal precautions

Keep unnecessary personnel away. Wear suitable protective clothing.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water.

Clean-up methods and materials and containment measures

In case of spills, beware of slippery floors and surfaces. Sweep or scoop up and remove. Following product recovery, flush area with water. Minimize dust generation.

7. Handling and Storage

Handling

Use personal protective equipment as required. Avoid contact with skin. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of reach of children.

Storage

Store in a cool and well-ventilated place. Keep away from moisture.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
CALCIUM HYDROXIDE (1305-62-0)	TWA	5 mg/m ³

Engineering controls

Provide adequate ventilation.

Personal protective equipment

Eye / face protection

Not normally needed. If contact is likely, safety glasses with side shields are recommended.

Skin protection

Not normally needed. If prolonged or repeated contact is likely, protective gloves are recommended. Neoprene gloves. Rubber gloves.

Respiratory protection

Not normally needed.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Color	Green.
Form	Powder.
Odor	Pine
pH	12.3 (1% solution)
Melting point	1500.5 °F (815.83781279 °C) estimated
Freezing point	1500.5 °F (815.83781279 °C) estimated
Boiling point	212 °F (100 °C) estimated
Flash point	220.00 °F (104.44 °C) estimated
Evaporation rate	Not available.
Vapor pressure	0.357930687 hPa estimated
Specific gravity	2.492334776 estimated
Solubility (water)	Moderate
Partition coefficient (n-octanol/water)	Not available
VOC	Not available.
Percent volatile	0 % estimated estimated
Density	2.49 g/cm ³ estimated



Crew Shower Tub & Tile Cleaner HC

HMIS		NFPA	Personal protective equipment
Health	3	3	
Flammability	0	0	
Physical Hazard / Instability	0	0	

Version Number: 3

Preparation date: 2014-03-17

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Crew Shower Tub & Tile Cleaner HC

MSDS #: MS0301327
Product Code: 3063453, 3063461, 5220325, 5271272, 5970284, 408830378, 400630431
Recommended use:
 • Restroom Care
 • This product is intended to be diluted prior to use

Manufacturer, importer, supplier:
 US Headquarters: Canadian Headquarters
 Diversey, Inc. - Canada
 8310 16th St. 2401 Bristol Circle
 Sturtevant, Wisconsin 53177-1964 Oakville, Ontario L6H 6P1
 Phone: 1-888-352-2249 Phone: 1-800-668-3131
 MSDS Internet Address: www.diversey.com
Emergency telephone number: 1-800-851-7145 (U.S.); 1-651-917-6133 (Int'l)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
 DANGER. CORROSIVE TO EYES. CAUSES EYE BURNS. CAUSES SKIN IRRITATION. HARMFUL OR FATAL IF SWALLOWED. MAY BE HARMFUL IF SWALLOWED.

Principal routes of exposure: Eye contact. Skin contact. Inhalation. Ingestion.
Eye contact: Corrosive. Causes permanent eye damage, including blindness.
Skin contact: Severe skin irritation.
Inhalation: May cause irritation and corrosive effects to nose, throat and respiratory tract.
Ingestion: May be irritating to mouth, throat and stomach.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS #	Weight %	LD50 Oral - Rat (mg/kg)	LD50 Dermal - Rabbit	LC50 Inhalation - Rat
Urea hydrochloride	506-89-8	20 - 30%	1121	Not available	Not available
Diethyl phthalate	84-66-2	0.1 - 1.5%	8600	Not available	Not available

4. FIRST-AID MEASURES

Eye contact: Immediately flush eyes with running water for 15-20 minutes, keeping eyelids open. Get medical attention immediately.
Skin contact: Immediately flush with plenty of water for at least 15 minutes. Get medical attention.
Inhalation: If breathing is affected, remove to fresh air. Get medical attention immediately.
Ingestion: If swallowed, give a cupful of water or milk. THEN IMMEDIATELY CONTACT A PHYSICIAN OR POISON CENTER. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Aggravated Medical Conditions: Individuals with chronic respiratory disorders such as asthma, chronic bronchitis, emphysema, etc., may be more susceptible to irritating effects.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: The product is not flammable. Extinguish fire using agent suitable for surrounding fire.
Extinguishing media which must not be used for safety reasons: No information available.
Specific hazards: Not applicable.
Unusual hazards: None known.

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear suitable protective clothing, gloves and eye/face protection.
Environmental precautions and clean-up methods: Clean-up methods - large spillage. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use a water rinse for final clean-up.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes and clothing. Do not taste or swallow. Avoid breathing vapors or mists. Use only with adequate ventilation. Remove and wash contaminated clothing and footwear before re-use. Wash thoroughly after handling. Product residue may remain on/in empty containers. All precautions for handling the product must be used in handling the empty container and residue. Mix only with water. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.
Storage: Protect from freezing. Keep tightly closed in a dry, cool and well-ventilated place. KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures to reduce exposure:
Good general ventilation should be sufficient to control airborne levels. Respiratory protection is not required if good ventilation is maintained.

Personal Protective Equipment

Eye protection: Chemical-splash goggles.
Hand protection: Chemical-resistant gloves.
Skin and body protection: If major exposure is possible, wear suitable protective clothing and footwear.
Respiratory protection: If aerosols, mists, vapors, or dust are not adequately controlled by ventilation, use appropriate respiratory protection to avoid over-exposure. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.
Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

Ingredient(s)	CAS #	ACGIH	OSHA	Mexico
Diethyl phthalate	84-66-2	5 mg/m ³ (TWA)		10 mg/m ³ (STEL) 5 mg/m ³ (TWA)

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Appearance: Liquid Aqueous solution
Specific gravity: 1.095
Vapor density: No information available
Boiling point/range: Not determined
Decomposition temperature: Not determined
Solubility: Completely Soluble
Solubility in other solvents: No information available
Partition coefficient (n-octanol/water): No information available
Elemental Phosphorus: 0.00 % by wt.
pH: 0.0
Explosion limits: - upper: Not determined - lower: Not determined

Bulk density: No information available
Evaporation Rate: No information available
Color: Clear, Fluorescent, Red
Odor: Fresh
Melting point/range: Not determined
Autoignition temperature: No information available
Density: 9.13 lbs/gal 1.095 Kg/L
Flash point: > 200 °F > 93.3 °C
Viscosity: No information available
VOC: 0 % *
Dilution pH: 1.29 @ 1:40

* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

10. STABILITY AND REACTIVITY

Stability: The product is stable
Polymerization: Hazardous polymerization does not occur.
Hazardous decomposition products: None reasonably foreseeable.

Materials to avoid: Ammonia, Oxidizing agents, Bases. Do not mix with chlorinated products (such as bleach).
 Conditions to avoid: Do not mix with any other product or chemical.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Corrosive to eyes. Oral LD50 estimated to be between 2000 - 3000 mg/kg. Dermal LD50 estimated to be > 2000 mg/kg.
 Component Information: See Section 3.
 Chronic toxicity: None known
Specific effects
 Carcinogenic effects: • None known
 Mutagenic effects: None known
 Reproductive toxicity: None known
 Target organ effects: None known

12. ECOLOGICAL INFORMATION

Environmental Information: No data available.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products:
 Undiluted product is regulated under environmental and transportation laws as a corrosive waste. Dispose of according to all federal, state and local applicable regulations.
 RCRA Hazard Class (undiluted product): D002 Corrosive Waste

14. TRANSPORT INFORMATION

DOT/TDG/IMDG: Please refer to the Diversey HazMat Library, only available through Internet Explorer, <http://naextranet.diversey.com/dot/>, for up to date shipping information.

DOT (Ground) Bill of Lading Description: UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., (urea hydrochloride), 8, III

IMDG (Ocean) Bill of Lading Description: UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., (urea hydrochloride), 8, III

15. REGULATORY INFORMATION

International Inventories at CAS# Level

All components of this product are listed on the following inventories: U.S.A. (TSCA), Canada (DSL/NDL).

U.S. Regulations

California Proposition 65: This product is not subject to the reporting requirements under California's Proposition 65.

RIGHT TO KNOW (RTK)

Ingredient(s)	CAS #	MARTK:	NJRTK:	PARTK:	RIRTK:
Water	7732-18-5	-	-	-	-
Urea hydrochloride	506-89-8	-	-	-	-
Alcohol ethoxylates	68439-46-3	-	-	-	-
β-Alanine, N-(2-carboxyethyl)-N-dodecyl-, sodium salt	14960-06-6	-	-	-	-
Diethyl phthalate	84-66-2	X	X	X	X

CERCLA/ SARA

Ingredient(s)	CAS #	Weight %	CERCLA/SARA RQ (lbs)	Section 302 TPQ (lbs)	Section 313
Diethyl phthalate	84-66-2	0.1 - 1.5%	1000		

Ingredient(s)	CAA HAP	CAA ODS	CWA Priority Pollutants
Diethyl phthalate			X

SARA 311/312 Hazard Categories

Immediate: X

Delayed: -
Fire: -
Reactivity: -
Sudden Release of Pressure: -

Canada
WHMIS hazard class: E Corrosive material.



Ingredient(s)	CAS #	NPRI
Diethyl phthalate	84-66-2	X

16. OTHER INFORMATION

Reason for revision: Not applicable
Prepared by: NAPRAC
Additional advice:

- Contains an added fragrance, see "Odor" heading in section 9 for specific description
- This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations

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DEEP GLOSS Maintainer for Stainless Steel

HMIS	NFPA	Personal protective equipment
Health	1	None / Aucune / Ninguno
Flammability	4	
Physical Hazard / Instability	0	

Version Number: 1

Preparation date: 2012-03-29

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: DEEP GLOSS Maintainer for Stainless Steel

MSDS #: MS0300762
Product Code: 4970590
Recommended use: Specialty Cleaner . This product is intended to be used neat .

Manufacturer, importer, supplier: Canadian Headquarters
 US Headquarters
 Diversey, Inc.
 8310 16th St.
 Sturtevant, Wisconsin 53177-1964
 Phone: 1-888-352-2249
 MSDS Internet Address: www.diversey.com

Emergency telephone number: 1-888-660-6737

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
 DANGER. Aspiration into the lungs may cause chemical pneumonitis. HARMFUL OR FATAL IF SWALLOWED. FLAMMABLE . CONTENTS UNDER PRESSURE. MAY BE MILDLY IRRITATING TO EYES. MAY BE MILDLY IRRITATING TO SKIN.

Principal routes of exposure: Skin contact. Inhalation. Eye contact.
Eye contact: May be mildly irritating to eyes.
Skin contact: May be mildly irritating to skin.
Inhalation: None known.
Ingestion: Aspiration into the lungs may cause chemical pneumonitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS #	Weight %	LD50 Oral - Rat (mg/kg)	LD50 Dermal - Rabbit	LC50 Inhalation - Rat
Isoparaffinic hydrocarbon solvent	64742-48-9	10 - 20%	5000	>3160 mg/kg	Not available
Aliphatic hydrocarbons	64742-47-8	20 - 30%	5000	>2000 mg/kg	>5.2 mg/L (4 h)
Silicones	63148-62-9	5 - 10%	16000	>2 g/kg	Not available
White mineral oil	8042-47-5	5 - 10%	5000	Not available	Not available
Alcohol ethoxylates	34398-01-1	0.1 - 1.5%	1000	Not available	Not available
Liquified petroleum gas	68476-86-8	20 - 30%	2000	Not available	Not available

Hazardous components None

4. FIRST AID MEASURES

Eye contact: Flush immediately with plenty of water. If irritation develops, get medical attention.
Skin contact: Flush immediately with plenty of water. If irritation develops, get medical attention.
Inhalation: If breathing is affected, remove to fresh air.
Ingestion: Do not induce vomiting. Call medical attendant, medical doctor, or poison control center immediately.
Aggravated Medical Conditions: None known

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Dry chemical, water spray, foam, carbon dioxide.
Specific hazards: Aerosol product - Containers may rocket or explode in heat of fire. NFPA 30B Level 2 Aerosol .
Unusual hazards: None known
Specific methods: Aerosol Product - Containers may rocket or explode in heat of fire. Use water spray to keep fire-exposed containers cool.

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

Extinguishing media which must not be used for safety reasons: No information available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment.
Environmental precautions and clean-up methods: Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling:
 CONTENTS UNDER PRESSURE. Do not puncture or incinerate. Keep away from open flames, hot surfaces and sources of ignition. Avoid contact with skin and eyes. Do not taste or swallow. Avoid breathing vapors or mists. Use only with adequate ventilation. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

Storage:
 NFPA 30B Level 2 Aerosol . Protect from freezing. Keep tightly closed in a dry, cool and well-ventilated place. KEEP OUT OF REACH OF CHILDREN. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 degrees C or 120 degrees F. Do not pierce or burn, even after use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures to reduce exposure:
 No special ventilation requirements General room ventilation is adequate

Personal Protective Equipment

Eye protection: No special requirements under normal use conditions.
Hand protection: No special requirements under normal use conditions
Skin and body protection: No special requirements under normal use conditions.
Respiratory protection: No special requirements under normal use conditions.
Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

Ingredient(s)	CAS #	ACGIH	OSHA	Mexico
Aliphatic hydrocarbons	64742-47-8		1200 mg/m ³	

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Aerosol	Bulk density: No information available
Appearance: Aerosol	Evaporation Rate: No information available
Specific gravity: 0.81	Color: Milky White
Vapor density: No information available	Odor: Characteristic
Boiling point/range: Not determined	Melting point/range: Not determined
Decomposition temperature: Not determined	Autoignition temperature: No information available
Solubility: Insoluble	Density: 6.76 lbs/gal 0.81 Kg/L
Solubility in other solvents: No information available	Flash point: 120 °F 48.9 °C
Partition coefficient (n-octanol/water): No information available	Viscosity: No information available
Elemental Phosphorus: 0 % by wt.	VOC: 29 % *
pH: No information available	Dilution pH: No information available.
Flame Extension (inches): less than 18	
Explosion limits: - upper: Not determined - lower: Not determined	

* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

10. STABILITY AND REACTIVITY

Stability: The product is stable
Polymerization: Hazardous polymerization does not occur
Hazardous decomposition products: None reasonably foreseeable.
Conditions to avoid: Do not freeze. Keep away from open flames, hot surfaces and sources of ignition.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Oral LD50 estimated to be between 4000 - 5000 mg/kg ; Dermal LD50 estimated to be > 2000 mg/kg
Component Information: See Section 3

Chronic toxicity: None known

Specific effects

Carcinogenic effects: None known
Mutagenic effects: None known
Reproductive toxicity: None known
Target organ effects: None known

12. ECOLOGICAL INFORMATION

Environmental Information: No data available

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products:

Dispose of according to all federal, state and local applicable regulations. If possible, recycle empty aerosol cans to the nearest steel recycling center. Use up contents if possible before disposal. This product, as sold, if discarded or disposed, is a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

RCRA Hazard Class: D001 Ignitable Waste

14. TRANSPORT INFORMATION

DOT/TDG/IMDG: Please refer to the Diversey HazMat Library, <http://naextranet.diversey.com/dot/>, for up to date shipping information.

DOT Bill of Lading Description: LTD. QTY.

IMDG Bill of Lading Description: UN1950, AEROSOLS, 2.1, LTD. QTY. (48.9°C(cc))

15. REGULATORY INFORMATION

International Inventories at CAS# Level

All components of this product are listed on the following inventories: U.S.A. (TSCA), Canada (DSL/NDSL).

U.S. Regulations

California Proposition 65: This product is not subject to the reporting requirements under California's Proposition 65

RIGHT TO KNOW (RTK)

Ingredient(s)	CAS #	MARTK:	NJRTK:	PARTK:	RIRTK:
Water	7732-18-5	-	-	-	-
Propane	74-98-6	X	X	X	-
Liquified petroleum gas	68476-86-8	-	-	-	-
Isoparaffinic hydrocarbon solvent	64742-48-9	-	-	-	-
Butane	106-97-8	X	X	X	-
Aliphatic hydrocarbons	64742-47-8	-	-	-	-
Silicones	63148-62-9	-	-	-	-
White mineral oil	8042-47-5	X	X	-	-
Alcohol ethoxylates	34398-01-1	-	-	-	-

CERCLA/ SARA

None

SARA 311/312 Hazard Categories

Immediate:	X
Delayed:	-
Fire:	X
Reactivity:	-
Sudden Release of Pressure:	X

Canada

WHMIS hazard class: A Compressed gases, B5 Flammable aerosol.



16. OTHER INFORMATION

Reason for revision:	Not applicable
Prepared by:	NAPRAC
Additional advice:	<ul style="list-style-type: none">• This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations

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MATERIAL SAFETY DATA SHEET

MSDS F-154 REVISION 3

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

The Dial Corporation
19001 N. Scottsdale Road
Scottsdale, Arizona 85255-9672

Medical Emergencies: 1-888-689-9082
Chemtrec: 1-800-424-9300 (24 Hours Daily)
Other Information: 1-888-468-6673

PRODUCT: **Liquid Laundry Detergents** DATE OF ISSUE: April 7, 2009

TRADE NAMES/SYNONYMS: Purex® Natural Elements Ultraconcentrated Liquid Laundry Detergent – Cherry Blossoms & Vanilla
Purex® Natural Elements Ultraconcentrated Liquid Laundry Detergent – Apple & Melon
Purex® Natural Elements Ultraconcentrated Liquid Laundry Detergent – Linen & Lilies
Purex® Natural Elements Ultraconcentrated Liquid Laundry Detergent – Citrus & Aloe
Purex® Natural Elements Ultraconcentrated Liquid Laundry Detergent for High Efficiency HE Washers – Lilac & White Lavender

CHEMICAL FAMILY: Mixture

I.D. NUMBERS: 99102923, 99103649 (Linen & Lilies); 99102924, 99103650 (Apple & Melon);
99102907, 99103648 (Cherry Blossoms & Vanilla); 99103692, 99103700 (Citrus & Aloe); 99103326, 99103647 (Lilac & White Lavender)

SECTION 2: HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION: This product is a clear liquid with a pleasant odor. Direct contact with eyes may cause irritation, with possibility of corneal injury if not removed promptly. It may be harmful if swallowed. Repeated or prolonged excessive exposure with skin can result in defatting and drying which may result in irritation and dermatitis. Keep out of reach of children. No significant environmental effects. Not a fire hazard. Product is stable.

This product is labeled in accordance with regulations administered by the Consumer Product Safety Commission. The use pattern and exposure in the workplace are generally not consistent with those experienced by consumers. The requirements of the Occupational Safety and Health Administration applicable to this Material Safety Data Sheet differ from the requirements of the CPSC and as a result, this MSDS may contain additional health hazard information not pertinent to consumer use and not found on the product label.

REGULATORY STATUS

While this product is not considered to be hazardous under OSHA's Hazard Communication Standard (29 CFR 1900.1200), this MSDS includes valuable information that is critical for safe handling and proper use of this product. This MSDS should be retained and available for employees and other users of this product.

POTENTIAL HEALTH EFFECTS

NOTE: The acute health effects described below are those which could potentially occur for the finished product. They are based on the toxicology information available for the finished product and/or each hazardous ingredient, and are consistent with the product type and the likelihood of a specific route of exposure. Known chronic health effects related to exposure to a specific ingredient are indicated.

EYE CONTACT: May cause moderate to severe irritation, with possibility of corneal injury if not removed promptly.

SKIN CONTACT: Repeated or prolonged excessive exposure can result in defatting and drying of the skin which may result in irritation and dermatitis.

INGESTION: Ingestion of large quantities may cause gastrointestinal irritation with nausea, vomiting, diarrhea and lethargy.

INHALATION: Unlikely to occur due to the physical properties of the product. Mists may cause respiratory tract irritation.

CHRONIC HEALTH EFFECTS: None known.

MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE: Persons with history of chronic skin conditions.

POTENTIAL ENVIRONMENTAL EFFECTS

See Section 12: Ecological Information.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Based on our hazard evaluation, the following chemical substance(s) in this product have been identified as hazardous.

<u>INGREDIENT</u>	<u>CAS NUMBER</u>	<u>PERCENT (w/w)</u>
Sodium Laureth Sulfate	68951-67-7	5 – 10 %
Alcohol Ethoxylate	68551-12-2	1 – 5 %
Sodium Chloride	7647-14-5	1 – 5 %

SECTION 4: FIRST AID MEASURES

EYES: Immediately rinse eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower lids, until no evidence of product remains. Get medical attention if pain or irritation persists.

SKIN: Rinse affected area with large amounts of water until no evidence of product remains. Get medical attention if irritation persists.

INGESTION: Treat symptomatically and supportively. Maintain airway and respiration. If vomiting occurs, keep head below hips to prevent aspiration. Dilution by rinsing the mouth and giving water or milk to drink is generally recommended. If unconscious, the victim should not be given anything to drink. Contact physician or local poison control center.

INHALATION: Immediately remove from exposure area to fresh air. Keep affected person warm and at rest. Treat symptomatically and supportively. Contact physician or local poison control center. If breathing has stopped, give artificial respiration, and get medical attention immediately.

NOTE TO PHYSICIAN: The physician's judgment should be used to control symptoms and clinical condition based on the individual reactions of the patient.

SECTION 5: FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

OSHA FLAMMABILITY CLASSIFICATION: Not applicable

FLASH POINT: None

UPPER FLAMMABILITY LIMIT: Not applicable

LOWER FLAMMABILITY LIMIT: Not applicable

AUTO-IGNITION TEMPERATURE: Not applicable

FIRE AND EXPLOSION HAZARD: Negligible fire hazard when exposed to heat or flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products may include toxic oxides of sulfur and carbon, and hydrogen sulfide.

EXTINGUISHING MEDIA

Dry chemical, carbon dioxide, water spray or regular foam.

PROTECTION OF FIREFIGHTERS

In case of fire, wear a full-face positive-pressure self-contained breathing apparatus and protective suit. Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until

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well after fire is out. Use flooding amounts of water as a fog, solid streams may be ineffective. Avoid breathing vapors; keep upwind.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Wear skin, eye and respiratory protection as recommended in Section 8. Stop or reduce any leaks if it is safe to do so. Spills present a slipping hazard. Keep unnecessary personnel away. Ventilate spill area if possible. Ensure clean-up is conducted by trained personnel only. Make sure area is slip-free before re-opening to traffic.

ENVIRONMENTAL PRECAUTIONS

Small or household quantities may be disposed in sewer or other liquid waste system. For larger quantities check with your local water treatment plant.

METHODS FOR CONTAINMENT AND CLEAN UP

SMALL SPILLS: Contain and absorb with sand or other absorbent material and place into containers for later disposal. Wash site of spillage thoroughly with water. LARGE SPILLS: Dike far ahead of spill to prevent further movement. Recover by pumping or by using a suitable absorbent material and place into containers for later disposal. Dispose in suitable waste container.

SECTION 7: HANDLING AND STORAGE

HANDLING:

Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Avoid generating aerosols and mists. Keep the containers closed when not in use.

STORAGE:

Store in original containers in a cool dry area. Store away from excessive heat and incompatible substances. Storage areas for large quantities (warehouse) should be well ventilated. Keep the containers tightly closed when not in use.

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

This product is a laundry care product. The use of this product by consumers is safe under normal and reasonable foreseen use. The information provided below refers to the occupational settings.

WORKER EXPOSURE LIMITS

No specific exposure limits exist for the ingredients listed for this formulation.

ENGINEERING CONTROLS: Provide local exhaust or general dilution ventilation to keep potential exposure to airborne contaminants as low as possible.

RESPIRATOR: None required under normal use conditions. If respiratory protection is required, it must be based on the contamination levels found in the workplace, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA).

FOR FIRE FIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS: Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode. Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure demand or other positive-pressure mode.

CLOTHING: Protective clothing (impervious to liquids) is required where splashing of product may occur.

GLOVES: Chemical-resistant gloves are required where repeated or prolonged skin contact may occur.

EYE/FACE PROTECTION: Splash-proof safety glasses are required to prevent eye contact where splashing of product may occur.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear liquid	PHYSICAL STATE:	Liquid
ODOR/ODOR THRESHOLD:	Pleasant fragrance	VAPOR DENSITY:	Not available
pH (@ 25°C):	7.5 – 9.0 (non-HE variants) 6.75 – 8.0 (HE variant)	VAPOR PRESSURE:	Not available
BOILING POINT:	Not available	FLASH POINT:	See Section 5.
MELTING/FREEZING POINT:	Not available	SOLUBILITY IN WATER:	Complete
FLAMMABLE PROPERTIES:	See Section 5.	EVAPORATION RATE:	Not available
DENSITY/SPECIFIC GRAVITY:	1.040 @ 25 °C	CLOUD POINT:	Not available
OCTANOL/WATER PARTITION COEFFICIENT (K _{ow}):	Not available		
VISCOSITY:	400-800 cps @ 25°C		

SECTION 10: STABILITY AND REACTIVITY

- CHEMICAL STABILITY:** Stable under normal ambient temperature (70°F, 21°C) and pressure (1 atm).
- CONDITIONS TO AVOID:** Avoid storing in direct sunlight and avoid extremes of temperature.
- INCOMPATIBLE MATERIALS:** Strong oxidizers and reducing agents.
- HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition products may include toxic oxides of sulfur and carbon, and hydrogen sulfide.
- POSSIBILITY OF HAZARDOUS REACTIONS:** Polymerization does not occur under normal temperatures and pressures.

SECTION 11: TOXICOLOGICAL INFORMATION

PRODUCT INFORMATION SUMMARY: This product is a laundry care product. The use of this product by consumers is safe under normal and reasonable foreseen use. Direct contact with eyes may cause irritation, with possibility of corneal injury if not removed promptly. It may be harmful if swallowed. Repeated or prolonged excessive exposure with skin can result in defatting and drying which may result in irritation and dermatitis.

COMPONENT ANALYSIS: The following toxicity information is for the hazardous ingredient(s) when used as technical grade and is provided as reference for the occupational settings.

PRODUCT / INGREDIENT	LD50 / DRAIZE SCORE	TOXICITY / IRRITATION RATING
ACUTE ORAL TOXICITY		
Sodium Chloride	3,000 mg/kg (rat)	Practically Non-hazardous
Sodium Laureth Sulfate	1,600 mg/kg (rat)	Moderately toxic
Alcohol Ethoxylate	> 2,000 mg/kg (rat)	Moderately toxic
ACUTE DERMAL TOXICITY		
Sodium Chloride	> 10,000 mg/kg (rabbit)	Non-hazardous

SENSITIZATION: This product is not considered a skin or respiratory sensitizer.

CARCINOGENICITY: None of the ingredients in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA).

MUTAGENICITY: None of the ingredients in this product are known to cause mutagenicity.

REPRODUCTIVE/FETAL/DEVELOPMENTAL TOXICITY: None of the ingredients in this product are known as reproductive, fetal, or developmental hazards.

TARGET ORGAN TOXICITY: None of the ingredients in this product are known to have target organ toxicity.

EPIDEMIOLOGICAL INFORMATION: None of the ingredients in this product are known to have health-related information in working populations.

SECTION 12: ECOLOGICAL INFORMATION

This product is anticipated to be safe for the environment at concentrations predicted in household settings under normal use conditions. The following toxicity information is available for the hazardous ingredient(s) when used as technical grade and is provided as reference for the occupational settings.

PRODUCT / INGREDIENT	LC50 / ED50 (mg/L)	TOXICITY RATING
VERTEBRATES		
Sodium Chloride	96h LC50: 9,675 (Lepomis macrochirus)(flow-through)	Non-hazardous
INVERTEBRATES		
Sodium Chloride	48h EC50: 1,000 (Daphnia magna)	Non-hazardous

ENVIRONMENTAL FATE: This product is readily biodegradable determined by the closed bottle test (OECD 301D).

PERSISTENCE AND DEGRADABILITY: The persistence and degradability of this product has not been determined.

BIOACCUMULATION POTENTIAL: The bioaccumulation potential of this product has not been determined.

MOBILITY: The mobility of this product (in soil and water) has not been determined.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE NUMBER AND DESCRIPTION: Not applicable, not regulated.

DISPOSAL CONSIDERATIONS: This product is not a RCRA hazardous waste and can be disposed of in accordance with federal, state and local regulations.

SECTION 14: TRANSPORT INFORMATION

GROUND TRANSPORT

DOT Hazard Class:	Not regulated	Packing Group:	Not applicable
DOT Proper Shipping Name:	Not applicable	Shipping Label Information:	Not applicable
UN/NA Number:	Not applicable		

AIR TRANSPORT (ICAO/IATA)

ICAO/IATA Hazard Class:	Not regulated
ICAO/IATA Proper Shipping Name:	Not applicable

MARINE TRANSPORT (IMDG/IMO)

IMDG/IMO Hazard Class:	Not regulated
IMDG/IMO Proper Shipping Name:	Not applicable

SECTION 15: REGULATORY INFORMATION

UNITED STATES:

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:

The Occupational Safety and Health Administration requires Material Safety Data Sheets to provide any hazards that may be associated with the product, and make this information available in the workplace. Since the use pattern and exposure in the workplace are generally not consistent with those experienced by consumers, this MSDS may contain additional health hazard information not pertinent to consumer use.

EPA - SARA TITLE III SECTION 313: This product contains no materials reportable under this section.

EPA CERCLA/SARA TITLE III SUPERFUND AMENDMENT AND REAUTHORIZATION ACT:

This product contains no CERCLA/SARA Title III materials. This product contains no hazardous chemicals reportable under Sections 311/312. This product contains no hazardous chemicals reportable under Section 304.

TSCA: All components of this product are listed on U.S. Toxic Substances Control Act (TSCA) chemical substance inventory.

STATE REGULATIONS

CALIFORNIA PROPOSITION 65: This product does not contain substances listed under California Proposition 65.

CANADA:

CANADIAN ENVIRONMENTAL PROTECTION ACT:

INVENTORY STATUS: All components of this product are listed on either the Canadian Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL).

WORKER HAZARDOUS MATERIALS INFORMATION SYSTEM:

WHMIS CLASSIFICATION: Not subject to classification.

SECTION 16: OTHER INFORMATION

DISCLAIMER: The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, The Dial Corporation makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular purpose. Accordingly, The Dial Corporation will not be responsible for damages of any kind resulting from the use of or reliance upon such information. No representations, or warranties, either expressed or implied of merchantability, fitness for a particular purpose or of any other nature is made hereunder with respect to the information set forth herein or to the product to which the information refers.

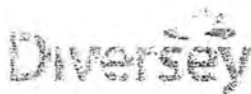
NFPA RATINGS (Scale 0-4, where 4=high degree of hazard): HEALTH=1 FLAMMABILITY=0 REACTIVITY=0
HMIS RATINGS (Scale 0-4, where 4=severe hazard): HEALTH=1 FLAMMABILITY=0 REACTIVITY=0

MSDS CREATION DATE: 03/09/07

SUPERCEDES: 04/09/08, Rev. 2

REVISION DATE: 04/07/09

REVISION: Updated Company & Formula Information.



Glance HC Glass & Multi-Surface Cleaner

HMSIS	NFPA	Personal protective equipment
Health	3	3
Flammability	0	0
Physical Hazard / Instability	0	0



Version Number: 0

Preparation date: 2012-10-03

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Glance HC Glass & Multi-Surface Cleaner

MSDS #: MS0301167
Product Code: 05779, 3063402, 3195337
Recommended use:

- Glass Cleaner
- MULTI-PURPOSE CLEANER
- This product is intended to be diluted prior to use

Manufacturer, importer, supplier: Canadian Headquarters
 US Headquarters
 Diversey, Inc. - Canada
 8310 16th St.
 2401 Bristol Circle
 Sturtevant, Wisconsin 53177-1964
 Phone: 1-888-352-2249
 Oakville, Ontario L6H 6P1
 Phone: 1-800-668-3131
 MSDS Internet Address: www.diversey.com
Emergency telephone number: 1-800-851-7145 (U.S.); 1-651-917-6133 (Int'l)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
 DANGER. CORROSIVE. CAUSES SKIN AND EYE BURNS. HARMFUL OR FATAL IF SWALLOWED.

Principal routes of exposure: Eye contact. Skin contact. Inhalation.
Eye contact: Corrosive. Causes permanent eye damage, including blindness.
Skin contact: Corrosive. Causes permanent damage.
Inhalation: May cause irritation and corrosive effects to nose, throat and respiratory tract.
Ingestion: May be irritating to mouth, throat and stomach.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS #	Weight %	LD50 Oral - Rat (mg/kg)	LD50 Dermal - Rabbit	LC50 Inhalation - Rat
2-butoxyethanol	111-76-2	10 - 20%	1400	220 mg/kg	2.21 mg/L (4 h) 450 ppm (4 h)
Diethylene glycol butyl ether	112-34-5	20 - 30%	4500	2700 mg/kg	Not available
Ammonium hydroxide	1336-21-6	1 - 5%	350	Not available	Not available
Sodium lauryl sulfate	151-21-3	5 - 10%	1288	580 mg/kg	>3900 mg/m ³ (1 h)

4. FIRST AID MEASURES

Eye contact: Immediately flush eyes with running water for 15-20 minutes, keeping eyelids open. Get medical attention immediately.
Skin contact: Immediately flush with plenty of water for 15-20 minutes. Get medical attention immediately.
Inhalation: If breathing is affected, remove to fresh air. Get medical attention immediately.
Ingestion: If swallowed, rinse mouth. Give a cupful of water or milk. THEN IMMEDIATELY CONTACT A PHYSICIAN OR POISON CENTER. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Aggravated Medical Conditions: Individuals with chronic respiratory disorders such as asthma, chronic bronchitis, emphysema, etc., may be more susceptible to irritating effects

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: The product is not flammable. Extinguish fire using agent suitable for surrounding fire.
 Specific hazards: Not applicable
 Unusual hazards: Corrosive material (See sections 8 and 10).
 Specific methods: No special methods required

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
 Extinguishing media which must not be used for safety reasons: No information available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment
 Environmental precautions and clean-up methods: Clean-up methods - large spillage. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use a water rinse for final clean-up.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes and clothing. Do not taste or swallow. Avoid breathing vapors or mists. Use only with adequate ventilation. Remove and wash contaminated clothing and footwear before re-use. Wash thoroughly after handling. Product residue may remain on/in empty containers. All precautions for handling the product must be used in handling the empty container and residue. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.
 Storage: Protect from freezing. Keep tightly closed in a dry, cool and well-ventilated place. KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures to reduce exposure: Good general ventilation should be sufficient to control airborne levels Respiratory protection is not required if good ventilation is maintained.

Personal Protective Equipment

Eye protection: Chemical-splash goggles.
 Hand protection: Chemical-resistant gloves
 Skin and body protection: Protective footwear. If major exposure is possible, wear suitable protective clothing and footwear.
 Respiratory protection: In case of insufficient ventilation wear suitable respiratory equipment. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.
 Hygiene measures: Handle in accordance with good industrial hygiene and safety practice

Ingredient(s)	CAS #	ACGIH	OSHA	Mexico
2-butoxyethanol	111-76-2	20 ppm (TWA)	Skin 50 ppm (TWA) 240 mg/m ³ (TWA)	75 ppm (STEL) 360 mg/m ³ (STEL) 26 ppm (TWA) 120 mg/m ³ (TWA)

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
 Appearance: Liquid Aqueous solution
 Specific gravity: 0.995
 Vapor density: No information available
 Boiling point/range: Not determined
 Decomposition temperature: Not determined
 Solubility: Completely Soluble
 Solubility in other solvents: No information available
 Partition coefficient (n-octanol/water): No information available
 Elemental Phosphorus: 0.00 % by wt.
 pH: 12
 Explosion limits: - upper: Not determined - lower: Not determined

Bulk density: No information available
 Evaporation Rate: No information available
 Color: Clear Dark Blue
 Odor: Ammonia
 Melting point/range: Not determined
 Autoignition temperature: No information available
 Density: 8.34 lbs/gal 1 Kg/L
 Flash point: > 200 °F > 93.4 °C
 Viscosity: No information available
 VOC: 13.5 % *
 Dilution pH: 10.5 @ 1:40

10. STABILITY AND REACTIVITY

Stability: The product is stable
 Polymerization: Hazardous polymerization does not occur
 Hazardous decomposition products: None reasonably foreseeable.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Corrosive. Oral LD50 estimated to be between 2000 - 3000 mg/kg. Dermal LD50 estimated to be > 2000 mg/kg.
 Component Information: See Section 3
 Chronic toxicity: None known
 Specific effects
 Carcinogenic effects: None known
 Mutagenic effects: None known
 Reproductive toxicity: None known
 Target organ effects: None known

12. ECOLOGICAL INFORMATION

Environmental Information: No data available

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products:
 This product, as sold, if discarded or disposed, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Dispose in compliance with all Federal, state, provincial, and local laws and regulations.
 RCRA Hazard Class: Not Regulated

14. TRANSPORT INFORMATION

DOT/TDG/IMDG: Please refer to the Diversey HazMat Library, <http://naextranet.diversey.com/dot/>, for up to date shipping information.

DOT Bill of Lading Description: UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., (ammonium hydroxide), 8, II

IMDG Bill of Lading Description: UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., (ammonium hydroxide), 8, II

15. REGULATORY INFORMATION

International Inventories at CAS# Level

All components of this product are listed on the following inventories: U.S.A. (TSCA), Canada (DSL/NDSL):

U.S. Regulations

California Proposition 65: This product is not subject to the reporting requirements under California's Proposition 65

RIGHT TO KNOW (RTK)

Ingredient(s)	CAS #	MARTK:	NJRTK:	PARTK:	RIRTK:
2-butoxyethanol	111-76-2	X	X	X	-
Diethylene glycol butyl ether	112-34-5	-	-	-	-
Ammonium hydroxide	1336-21-6	X	X	X	X
Sodium lauryl sulfate	151-21-3	-	-	-	-
Water	7732-18-5	-	-	-	-

CERCLA/ SARA

Ingredient(s)	CAS #	Weight %	CERCLA/SARA RQ (lbs)	Section 302 TPQ (lbs)	Section 313
2-butoxyethanol	111-76-2	10 - 20%			X

Diethylene glycol butyl ether	112-34-5	20 - 30%		X
Ammonium hydroxide	1336-21-6	1 - 5%	1000	X

Ingredient(s)	CAA HAP	CAA ODS	CWA Priority Pollutants
2-butoxyethanol	X		

SARA 311/312 Hazard Categories

Immediate: x
 Delayed: -
 Fire: -
 Reactivity: -
 Sudden Release of Pressure: -

Canada

WHMIS hazard class: E Corrosive material



16. OTHER INFORMATION

Reason for revision: Not applicable
 Prepared by: NAPRAC
 Additional advice:

- Does not contain an added fragrance
- This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations

Notice to Reader: This document has been prepared using data from sources considered technically reliable. It does not constitute a warranty, express or implied, as to the accuracy of the information contained within. Actual conditions of use and handling are beyond seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

PPC

GOJ 526302



Date:
Supercedes:

15 November 2004
16 May 2002

2/2000ml/s

MATERIAL SAFETY DATA SHEET

IN CASE OF EMERGENCY CALL CHEMTREC AT 1-800-424-9300

in 32oz

1. PRODUCT IDENTIFICATION AND COMPANY IDENTIFICATION:

Product Name: **GOJO® LUXURY FOAM HAIR AND BODY WASH**

Company Name & Address: GOJO Industries, Inc.
One GOJO Plaza, Suite 500
Akron, OH 44311

Emergency Phone: 1-800-424-9300 CHEMTREC
Non-Emergency Phone: (330) 255-6000
MSDS Request Phone: (330) 255-6000 x8804

2. INFORMATION ON INGREDIENTS:

HAZARDOUS INGREDIENTS	CAS NUMBER	OSHA PEL	ACGIH TLV	% RANGE
None				

Other ingredient(s) with notification requirements:	CAS NUMBER	List
None		

3. HAZARDS IDENTIFICATION:

EMERGENCY OVERVIEW

When used according to instructions, the product applicable to this MSDS is safe and presents no immediate or long-term health hazard. However, abnormal entry routes, such as gross ingestion, may require immediate medical attention.

Potential Health Effects:

HMIS: Health 1 Flammability 0 Reactivity 0 Personal Protection None

Eye Contact: May cause eye irritation.
Skin Contact: No irritation or reaction expected.
Inhalation: Not applicable.
Ingestion: May cause upset stomach, nausea (Abnormal entry route).
Carcinogenicity: Not listed as a carcinogen by NTP, IARC, OSHA or ACGIH.

4. FIRST AID MEASURES:

Eye Contact: Do not rub eyes. Flush eyes thoroughly with water for 15 minutes. If condition worsens or irritation persists, contact physician.
Skin Contact: Not applicable.
Inhalation: Not applicable.
Ingestion: Do not induce vomiting. Contact a physician or Poison Control Center.

5. FIRE FIGHTING MEASURES:NFPA: Health 0 Fire 0 Reactivity 0

Flashpoint °F/°C (PMCC method): Not applicable

Unusual Fire and Explosion Hazards: None known.

Special Fire Fighting Procedures: None known.

Extinguishing Media: X Water Fog X Alcohol Foam X CO₂ X Dry Chemical Other**6. ACCIDENTAL RELEASE MEASURES:**

No special requirements. Water clean up and rinse. CAUTION – WILL CAUSE SLIPPERY SURFACES.

7. HANDLING AND STORAGE:

Store at normal room temperature away from reach of small children. Keep containers sealed. Use older containers first. Avoid freezing conditions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Eye Protection: None required under normal conditions.

Skin Protection: None required under normal conditions.

Respiratory Protection: None required under normal conditions.

Ventilation: None required under normal conditions.

Protective Equipment or Clothing: None required under normal conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance and Odor Clear green liquid with cucumber melon fragrance

pH (undiluted): 4.5 - 9.5

VOC, %: 0

10. STABILITY AND REACTIVITY:

Stable/Non reactive product.

11. TOXICOLOGICAL INFORMATION:

No acute or chronic toxic effects expected when used according to directions.

12. ECOLOGICAL CONSIDERATIONS:

No ecological or special considerations when used according to directions. Not considered environmentally harmful from normal dilution, expected usage and typical drainage to sewers, septic systems and treatment plants.

13. DISPOSAL CONSIDERATIONS:

No special considerations when disposed according to local, state and Federal regulations.

14. TRANSPORT INFORMATION:

Not classified as a hazardous material.

15. REGULATORY AND OTHER INFORMATION:

TSCA: All ingredients are listed or exempt per reference 15 USC 2602 (2)(B)(iv).

Complies with current FDA regulations for cosmetic and/or over-the-counter drug products.

Notice: The information herein is based on data considered to be accurate as of the date of preparation of this material safety data sheet. However, no warranty or representation, expressed or implied, is made as to the accuracy or completeness of the foregoing data and safety information. The user assumes all liability for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.

Our Customers Say,
"Graffiti Master Products are the best I have ever seen"

Graffiti Master® Products
1-800-4-GRAFFITI
www.graffitimaster.com

Graffiti Master® - Making the World A Better Place!

MATERIAL SAFETY DATA SHEET

Graffiti Master
1813 Rutan Drive
Livermore, CA 94550

Daytime Phone: 800-447-2334
Technical Support: 888-534-7374
Emergency: Chemtel 800-255-3924

Date Compiled: 15 March 2000

SECTION 1: PRODUCT IDENTIFICATION

Product name: Mason-Master

Synonym/Chemical name/Common name: Graffiti Remover

DOT hazard class: Corrosive

DOT proper shipping name: Corrosive liquids, N.O.S. (Potassium Hydroxide), 8, UN 1760, PG II

SECTION 2: INGREDIENT INFORMATION

Hazardous Ingredients	Wgt %	Toxicity Data
Potassium Hydroxide* CAS# 1310-58-3	TRADE SECRET	TLV=2 mg/m3 in air
Butyl Cellosolve CAS# 111-76-2	PER CFR 1910.1200	TLV=121 mg/m3 in air

This product contains no chemical at a level which poses a significant risk as defined by California Proposition 65.

*This chemical is subject to reporting requirements of Title III SARA, section 313 EPCRA (40 CFR 372).

SECTION 3: PHYSICAL CHARACTERISTICS

Specific Gravity (H2O=1): 1.026
Vapor pressure: 24 mm Hg
Vapor density (Air=1): No vapors are produced
Percentage volatile by weight: 82.1
Solubility in water: Complete
pH (Undiluted): 13.5 to 14.0
Evaporation rate (H2O=1): 1.0
Freezing point: 32o F
Boiling point: 212o F
Appearance and odor: Clear liquid with mild solvent odor

Product name: Mason-Master (Page 2)

SECTION 4: FIRE AND EXPLOSION HAZARDS

Flash point: Nonflammable
Flash point test method: N/A
Flammability limits: N/A
Extinguishing media: Treat primary fire
Special fire fighting procedures: None
Unusual fire or explosive hazards: None

SECTION 5: REACTIVITY DATA/CONDITIONS TO AVOID

Stability: Stable
Incompatibilities (Conditions to avoid): Do not mix with acids
Hazardous decomposition products: None
Hazardous polymerization will not occur.
Conditions to avoid: None are known

SECTION 6: HEALTH HAZARDS/FIRST AID

Primary routes of entry: Skin & eyes
Signs and symptoms: Product is extremely irritating to unprotected skin and is destructive to eyes.
First aid procedures: For skin contact flush with large amounts of water. For eye contact, flush with water for at least 15 minutes and contact a physician. If swallowed do not induce vomiting. Contact a physician or poison control center.
There are no known chronic health effects caused by the use of this product.

SECTION 7: PERSONAL PROTECTION RECOMMENDATIONS

Respiratory protection: None required
Ventilation: Use with adequate ventilation
Protective gloves: Neoprene gloves are mandatory for hands.
Eye protection: Chemical goggles and/or face shield must be worn during use to prevent eye contact. Avoid sprayed mists.

SECTION 8: STORAGE/SPILL/SPECIAL HANDLING INFORMATION

Steps to be taken in case of spill: Spill area will be slippery until spilled material is removed. Remove with rags, mops, or by flushing with water - use best management practices.
Waste disposal: Follow all local, state, and federal waste disposal regulations.
Special storage or handling precautions: Do not expose to freezing temperatures.

N/D = Not determined N/A = Not applicable

This Material Safety Data Sheet is written and provided in good faith for the sole purpose of providing information for the safe use and handling of this product. It is compiled from technical data believed to be current and correct. It should not be taken as a warranty or representation for which Graffiti Master assumes any legal responsibility. The buyer assumes all responsibilities of using and handling the product in accordance with local, state, and federal regulations.

Manufactured by Graffiti Master Products. All rights reserved.
Technical Support 888-534-7374 Sales 800-447-2334

TileLab® Grout & Tile Cleaner & Resealer

Product Name

TileLab® Grout & Tile Cleaner & Resealer

2 Manufacturer

Custom Building Products
13001 Seal Beach Blvd.
Seal Beach, CA 90740-2757
Customer Support: 800-272-8786
Technical Services: 800-282-8786
Fax: 800- 200-7765
Email: contactus@cbpmail.net
custombuildingproducts.com

3 Product Description

Ready-to-use cleaner and resealer. Nonacidic, non-abrasive formula won't damage stone, grout or tile. Cuts through grease, dirt, food and soap scum on tile, grout, chrome, glass and laminates. Contains TileLab® SurfaceGard® Sealer to reseal as it cleans. Leaves a fresh citrus scent.

Packaging

- 1 gallon (3.78 L) bottle
- 32 fl. oz. (946 mL) spray bottle

4 Technical Data

Technical Properties Chart

- Removes typical household dirt and grease
- Maintains stain resistance of sealed stone
- pH neutral (7.9)
- Complies with all Federal and SCAQMD Standards for VOCs

5 Instructions

Application of Product

Read entire label before using. Spray directly on the surface of tile and wipe off excess. On tougher soils, wait several minutes before wiping. Heavy buildup may require scrubbing. Use a white nylon pad to avoid scratching tile. To remove heavy buildup of acrylic and wax floor finishes or greasy dirt, use TileLab® Heavy-Duty Stripper & Cleaner.

Cleaning of equipment

Clean tools and hands with water before material dries.

Storage

- Close container tightly after each use
- Store in original container only
- Store in and use in temperatures between 40°F - 90°F (4°C and 32°C)
- Store in areas inaccessible to small children
- Do not reuse empty container, wrap and discard in trash or recycle

Health Precautions

MAY BE HARMFUL IF SWALLOWED. MAY CAUSE EYE, SKIN AND RESPIRATORY IRRITATION. Wear skin and eye protection. Do not breathe vapor or spray. Contains detergents and surfactants. If in eyes, flush with water for at least 15 minutes. If on skin, wash with soap and water. If respiratory tract is irritated, remove to fresh air. If irritation persists, seek medical attention. If swallowed, DO NOT induce vomiting, seek medical attention. KEEP OUT OF REACH OF CHILDREN.



6 Availability & Cost

Location	Item Code	Size	Package
USA	TLOSRAQT-3	32 fl. oz. (946 ml)	Spray Bottle
USA	TLOS1	1 gal (3.78 L)	Bottle
Canada	CTLOSQT-3	1 qt (.946 L)	Spray Bottle

7 Product Warranty

Custom® Building Products warrants to the original consumer purchaser that its product shall be free from defects in material and workmanship under normal and proper usage for a period of one year following the date of original purchase. Custom's® sole liability under this warranty shall be limited to the replacement of the product. Some states, countries or territories do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty will not extend to any product which has been modified in any way or which has not been used in accordance with Custom's® printed instructions. Custom® makes no other warranties either expressed or implied. This warranty gives you specific legal rights, and you may have other rights that vary from state to state or from one country/territory to another. Click for details and complete [warranty information](#).

8 Product Maintenance

Properly installed product requires no special maintenance.

9 Technical Services Information

For technical assistance, contact Custom® Building Products.

10 Filing System

Additional product information is available from the manufacturer upon request.

Related Products

TileLab® SurfaceGard® Sealer



CUSTOM®



IDENTITY (As Used on Label and List)
SPRIT GUM REMOVER

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name Ben Nye Company, Inc.	Emergency Telephone Number US/Canada: 800/225-3924; Int'l: 813/977-3668 (Coll)
Address (Number, Street, City, State, and ZIP Code) 5935 Bowcroft Street	Telephone Number for Information (310) 839-1984 (8:00AM-4:30PM)
Los Angeles, California 90016	Date Prepared November 11, 1992 (Revised)
	Signature of Preparer (optional)

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Mineral Oil / CAS #8042-47-5	No limit	No limit		
Petroleum Naphtha / CAS #64741-65-7	N/E	N/E		

N/E = Not established

Section III — Physical/Chemical Characteristics

Boiling Point	359 ° F	Specific Gravity (H ₂ O = 1)	N/E
Vapor Pressure (mm Hg.) Less than 5 @ 100F		Melting Point	N/A
Vapor Density (AIR = 1)	1 - 4.8	Evaporation Rate (Butyl Acetate = 1)	Less than 1
Solubility in Water Negligible			
Appearance and Odor Clear, red-orange liquid; slight citrus odor.			

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used) 132 ° F (TCC) - 350 ° F (COC)	Flammable Limits Not established	LEL	UEL
Extinguishing Media Fog, foam, dry chemical or carbon dioxide. Do not use direct stream of water.			
Special Fire Fighting Procedures May be combustible. Enter confined fire space with full bunker gear. Product may float on water and reignite.			
Unusual Fire and Explosion Hazards Carbon monoxide, carbon dioxide and other oxides may be generated as products of combustion.			

Section V — Reactivity Data

Stability	Unstable		Conditions to Avoid Avoid heat, flame and contact with strong oxidizing agents such as liquid chlorine, concentrated oxygen, etc.
	Stable	X	

Incompatibility (Materials to Avoid)

As above.

Hazardous Decomposition or Byproducts

Carbon monoxide and unidentified organic compounds.

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

Section VI — Health Hazard Data

Route(s) of Entry:	Inhalation? Potential	Skin?	Ingestion?
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Health Hazards (Acute and Chronic)

N/A

Do not ingest. Do not use in eyes.

Carcinogenicity:	NTP? NO	IARC Monographs?	OSHA Regulated?
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Signs and Symptoms of Exposure

May cause slight skin irritation in some people.

Medical Conditions

Generally Aggravated by Exposure N/A

Emergency and First Aid Procedures

EYES: Flush eyes with water for at least 15 minutes; obtain medical attention.

INGESTION: Do not induce vomiting. Seek medical attention immediately.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material Is Released or Spilled

If large spill: Wear protective gloves and clothing. Mop with absorbent material and/or sand/clay for large spills.

Waste Disposal Method

Dispose according to local, state and federal regulations. Do not flush to sewer.

Precautions to Be Taken in Handling and Storing

Wash thoroughly with soap and water after contact. Keep stored away from heat, flame or spark.

Other Precautions

None.

Section VIII — Control Measures

Respiratory Protection (Specify Type)

N/A

Ventilation	Local Exhaust Adequate	Special
	Mechanical (General)	Other

Protective Gloves

Not required with proper handling.

Eye Protection

Not required with proper handling.

Other Protective Clothing or Equipment

Not required.

Work/Hygienic Practices

Wash hands with soap and warm water before eating/drinking.

MATERIAL SAFETY DATA SHEET – PAINT REMOVER**Hazardous according to criteria of WorkSafe Australia****PRODUCT IDENTIFICATION:**

Trade Name: Sceneys Rapid-Action Paint Remover
 Shipping Name: Poisonous Liquid N.O.S
 UN: 2810 Class: 6.1b
 Hazchem: 2 [Z] Pkg: III
 Epg: 6B3

PHYSICAL DESCRIPTION/PROPERTIES:

Appearance: Opaque viscous paste
 Vapour Pressure: Info not available
 Boiling Point: 32-80 deg C
 Volatile Component: >90% by weight
 Specific Gravity: Approx 1.3
 Flash Point: None
 Flammability Limits: 14.8% LEL: 22% UEL: (methanol)
 Autoignition Temp: 615 deg C
 Rel Vapour Density: approx .3
 Form: Liquid

INGREDIENTS:**Chemical Entity: Proportion:**

Dichloromethane 70-75%
 Methanol: 5-10%
 Gelling agents: 10-20%

Other Data:

Sceneys Paint Remover consists of a gel mixture of Methylene Chloride and Methanol. This enables the product to remain on the surface long enough for the methylene chloride to attack the paint coating. The paint is attacked within minutes and scraping should then commence. If all paint coatings are not removed in the first application simply repeat the process. Give the stripped surface a final clean with methylated spirits or warm soapy water before repainting.

USE: As a high quality, methylene chloride based paint stripper for removing:

2 pack epoxy paints, urethane coatings, traffic paints, chlorinated rubber paints, alkyd and acrylic paints, graffiti from all timber, masonry/concrete, brick and metallic surfaces.

HEALTH HAZARD INFORMATION:**ACUTE EFFECTS:**

Swallowed: Ingestion can result in nausea, vomiting, diarrhea, abdominal pain, and/or convulsions. If retained it may lead to kidney damage and ulceration of the stomach.

Eye: High concentrations of vapour will cause irritation. Permanent eye damage, including loss of sight, may occur.

Skin: Contact with skin will result in moderate irritation. Repeated or prolonged skin contact may lead to dermatitis effects. Will have a deflating effect on the skin.

Inhaled: Harmful by inhalation. May cause nausea, vomiting and dizziness. Possible CNS effects. Can lead to unconsciousness and possible death.

Chronic Effects: Repeated or prolonged skin contact can cause dermatitis. Evidence from studies on exposed workers indicate that repeated or prolonged exposure to this chemical could result in liver, kidney and blood disorders. Some animal test data suggests a carcinogenic potential for this material. These particular data are not considered relevant to normal industrial use but emphasise the need for care in handling. May induce asthma-like sensations.

FIRST AID:

Swallowed: Rinse mouth thoroughly with water immediately. Give plenty of water to drink. Seek immediate medical assistance. DO NOT induce vomiting because of risk of aspiration.

Eye: Immediately irrigate with copious quantities of water. Eyelids to be held open. Seek medical attention.

Skin: Wash affected areas with copious quantities of water. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.

Inhaled: If effects occur, remove to fresh air. If not breathing, commence resuscitation. If breathing is difficult oxygen can be given by a trained person. Call a doctor and/or transport to medical centre.

Advice to Doctor: Eyes: check eyes for corneal irritation. Skin: treat as chronic dermatitis. Respiratory: treat for anaesthetic or narcotic effect. Oral: if lavage is required, consider endotracheal and/or esophagoscopy control. Systemic: may increase myocardial irritability.

There is no specific antidote.

TOXICITY DATA:

Single low dose toxicity: LD50 (rat) 2524mg/kg

PRECAUTIONS FOR USE:

Exposure Standards: For methylene chloride. T.W.A 50ppm 174 mg/m³

Carcinogen Category: 3 (substances suspected of having carcinogenic potential)

Other Data: T.L.V 350 mg/m³, S.T.E.L 175mg/m³

Exposure to a level above 3100mg/m³ may cause anaesthesia and can be fatal.

For methanol: T.W.A 262 mg/m³ S.T.E.L 328 mg/m³

Engineering Controls: Use in a well ventilated area only. Consider mechanical ventilation. Must be sufficient to prevent breathing of vapour. Maintain concentration below recommended exposure limit.

Personal Protection: Wearing of the following personal protective equipment is recommended. Safety glasses, goggles or face shield, chemically resistant gloves, overalls or similar protective apparel, enclosed footwear. Avoid skin contact. Avoid inhaling vapour, mist or dust. Do not smoke.

Flammability: Non flammable. May produce chlorine or phosgene if involved in a fire.

Environment: Harmful to aquatic life/bird life. Avoid contaminating waterways.

SAFE HANDLING INFORMATION:

Storage and Transport: Store in a well ventilated area. Store away from heat. Not to be loaded with foodstuffs. Store away from combustible materials. Class 6 Poisonous (toxic) substances shall not be loaded in a vehicle with:

- | | |
|-----------|--|
| Class 1 | Explosives – Foodstuffs and foodstuffs empties |
| Class 3 | Flammable liquids |
| Class 5.1 | Oxidising agents (when Class 6 subst. Capable of burning) |
| Class 5.2 | Organic peroxides (when Class 6 subst. Capable of burning) |

Store in original containers. Transport in original containers.

Packaging and Labelling: Packaging Method: 5.9.6.1 RT7, RT8. Labelling to be as per the Uniform Paint Standard.

Spills and Disposal: In the event of a small spill use absorbent (soil, sand, sawdust, inert material or vermiculite). Sweep up. Absorbed spillage should be placed in an open top metal container in an open space away from habitation where solvent can evaporate. For large spills notify Emergency Services. The following protective equipment should be worn. Impervious overalls or similar protective apparel. Wear self contained breathing apparatus. Contain using

and earth – prevent runoff into drains and waterways. Isolate leaking containers and stop leak if safe to do so. Collect and seal in properly labelled drums for disposal. Residues must be incinerated by an appropriate agent.

Fire/Explosion Hazard: Non flammable. Will produce hydrochloric acid and small amounts of chlorine and phosgene when heated. Wear self contained breathing apparatus if risk of exposure to vapours or products of combustion. Keep containers exposed to heat cooled with water spray to avoid rupture.

Reactivity Data: Avoid oxidising agents. Incompatible with aluminium, sodium, potassium, and magnesium. Avoid contact with ketones and water.

OTHER INFORMATION:

DISCLAIMER: The data provided here is based on current knowledge and experience. The purpose for this Safety Data Sheet is to describe the product in terms of its safety requirements. The data does not signify any warranty with regard to the properties or end use or handling of the product. All information is provided in good faith but without guarantee and without acceptance of responsibility of accuracy.

Sceney's Paint Remover assumes no responsibility for personal injury or property damage to vendees, users, or third parties caused by the material. Such vendees or users assume all risks associated with the use of the material.

Prepared by Dr Greg Sceney 01/05/2013

Supplier: Sceney's Pty Ltd
17 Third Ave
Sunshine Vic 3020

Ph: (03)9311 7477
Fax: (03)9312 6911
www.sceney.com.au

SECTION 1 - PRODUCT INFORMATION

Product Identifier: 41-087 P&F ACRYLIC - CLOUD GREY + Enamel			
Product Use: Protective Coating			
Manufacturer's Name: General Paint Corp.		Supplier's Name: General Paint Corp.	
Street Address: 950 Raymur Ave		Street Address: 950 Raymur Ave	
City: Vancouver	Province: BC	City: Vancouver	Province: BC
Postal Code: V6A 3L5	Emergency Phone: (604) 253-4022	Postal Code: V6A 3L5	Emergency Phone: (604) 253-4022

SECTION 2 - HAZARDOUS INGREDIENTS

Hazardous Ingredients(Specific)	%	CAS Number	LD 50 of Ingredient(Specify species,route)	LC 50 of Ingredient(Specify species)
ZINC OXIDE	3.1	1314-13-2	7950 MG/KG(ORAL, MOUSE)	NOT AVAILABLE
TITANIUM DIOXIDE	4.34 - 5	13463-67-7	NOT AVAILABLE	NOT AVAILABLE
PROPYLENE GLYCOL	1.48 - 1.51	57-55-6	20000 MG/KG(ORAL, RAT)	NOT AVAILABLE

SECTION 3 - PHYSICAL DATA

Physical State: Liquid	Odour and Appearance: liquid with a slight ammonia smell	Coating VOC(gm/l): 66	Odour Threshold(ppm): Not Available
Specific Gravity: 1.28	Vapor Density(air=1): Not Available	Vapor Pressure(mmHg): Not Available	Evaporation Rate: Not Available
Boiling Point(° C): Greater than 100°C	Freezing Point(° C): Less than 0°C	pH: 8.75-9.75	Coefficient of Water/Oil Distribution: Not Available

SECTION 4 - FIRE AND EXPLOSION DATA

Flammability: No	If yes, Under which Conditions? Not Applicable		
Means of Extinction: Alcohol foam, Carbon dioxide, Dry chemical powder, Polymer foam			
Flashpoint and Method: "Not Applicable	Upper Flammable Lt (% by Volume): Not Applicable	Lower Flammable Lt (% by Volume): Not Applicable	
Autoignition Temperature: Not Applicable	Explosion Data - Sensitivity to Impact: No	Explosion Data - Sensitivity to Static discharges: No	
Hazardous Combustion Pdts: calcium oxide, carbon dioxide, carbon monoxide, aldehydes, nitrogen oxides, sulfur oxides, magnesium oxide			

SECTION 5 - REACTIVITY DATA

Chemical Stability: Stable	If Yes, Under which Conditions? Not Applicable
Incompatibility with other substances: Yes	If yes, which ones? Strong Acids Strong Oxidizing agents Strong Bases
Reactivity, and under what conditions? heat, generation of dust, nitric acid, dichlorohydrantion, heat, sparks, or other ignition sources	
Hazardous Decomposition Products: oxides of nitrogen, carbon dioxide, aldehydes	

SECTION 6 - TOXICOLOGICAL PROPERTIES

Route of Entry	Skin Contact: Yes	Absorption: Yes	Eye Contact: Yes	Inhalation: Yes	Ingestion: Yes
Effects to Acute exposure to Product: ZINC OXIDE has been known to cause METAL FUME FEVER (FLU LIKE SYMPTOMS; SWEATING, SHIVERING HEADACHE, FEVER, NAUSEA, VOMITING and AND TIREDNESS).					
Effects to Chronic exposure to Product: PROPYLENE GLYCOL has been known to cause LACTIC ACIDOSIS.					
Exposure Limits (Value,Units,By) ZINC OXIDE: 10 mg/m3 ACGIH TITANIUM DIOXIDE: 10 mg/m3 ACGIH PROPYLENE GLYCOL: 10 mg/m3 AIHA					
Irritancy (if yes, explain)					
Sensitization (if yes, explain)			Carcinogenicity (if yes, explain) TITANIUM DIOXIDE is possibly carcinogenic to humans(2B) by IARC.		
Reproductive Toxicity (if yes, explain)			Teratogenicity (if yes, explain) ZINC OXIDE may cause birth defects.		
Mutagenicity (if yes, explain)			Synergistic Products (if yes, explain)		

SECTION 7 - PREVENTIVE MEASURES

Personal Protective Equipment	Gloves: No	Respirator: Yes	Eye: No	Footwear: No	Clothing: No	Other: No
If checked, specify type: Respirator: NIOSH APPROVED						
Engineering controls (specify such as ventilation, enclosed process): Use mechanical ventilation to reduce exposure, ground all equipment and avoid exposure to open flames or sparks.						
Leak and Spill Procedure: Wear adequate protective equipment and eliminate all ignition sources. Contain spill with absorbant material and place in a suitable covered and labeled container for disposal.						
Waste Disposal: Check with Federal, Provincial and local government regulations and requirements for disposal.						
Handling Procedures and Equipment: Use in a well ventilated area. Do not use with incompatible substances and keep away from heat and all ignition sources. Use grounded and non-sparking equipment only.						

Storage Requirements:
 Store in a cool, well ventilated area out of direct sunlight. Store away from heat and all ignition sources. Storage facility should be manufactured out of fire resistant materials.

Special Shipping Information:
 None Required

SECTION 8 - FIRST AID MEASURES

Inhalation: Remove to fresh air. Get medical help if there is any breathing difficulty.

Ingestion: Do not induce vomiting unless directed by a physician. If conscious and alert, give two glasses of water. Seek medical attention immediately.

Skin Contact: Remove Contaminated clothing (including shoes) and wash before reuse. Flush with large amounts of soap and water. If irritation persists, seek medical attention.

Eye Contact: Flush eyes with large amounts of lukewarm water for 20 minutes, while holding eyelids open or until irritation subsides. If irritation persist, get medical attention.

SECTION 9 - PREPARATION INFORMATION

Prepared by: General Paint Technical Dept	Phone: (604) 253-3131	Preparation Date: Jun 29, 2012
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SECTION 1 - PRODUCT INFORMATION

Product Identifier: 52-026 FLAT LATEX DRYFALL - WHITE E50			
Product Use: Protective Coating			
Manufacturer's Name: General Paint Corp.		Supplier's Name: General Paint Corp.	
Street Address: 950 Raymur Ave		Street Address: 950 Raymur Ave	
City: Vancouver	Province: BC	City: Vancouver	Province: BC
Postal Code: V6A 3L5	Emergency Phone: (604) 253-4022	Postal Code: V6A 3L5	Emergency Phone: (604) 253-4022

SECTION 2 - HAZARDOUS INGREDIENTS

Hazardous Ingredients(<i>Specific</i>)	%	CAS Number	LD 50 of Ingredient(<i>Specify species,route</i>)	LC 50 of Ingredient(<i>Specify species</i>)
TITANIUM DIOXIDE	8 - 10	13463-67-7	NOT AVAILABLE	NOT AVAILABLE

SECTION 3 - PHYSICAL DATA

Physical State: Liquid	Odour and Appearance: liquid with a slight ammonia smell	Coating VOC(gm/l): 47	Odour Threshold(ppm): Not Available
Specific Gravity: 1.51	Vapor Density(air=1): Not Available	Vapor Pressure(mmHg): Not Available	Evaporation Rate: Not Available
Boiling Point(° C): Greater than 100°C	Freezing Point(° C): Less than 0°C	pH: 9-10	Coefficient of Water/Oil Distribution: Not Available

SECTION 4 - FIRE AND EXPLOSION DATA

Flammability: No	If yes, Under which Conditions? Not Applicable	
Means of Extinction: Alcohol foam, Carbon dioxide, Dry chemical powder, Polymer foam, water.		
Flashpoint and Method: "Not Applicable	Upper Flammable Lt (% by Volume): Not Applicable	Lower Flammable Lt (% by Volume): Not Applicable
Autoignition Temperature: Not Applicable	Explosion Data - Sensitivity to Impact: No	Explosion Data - Sensitivity to Static discharges: No
Hazardous Combustion Pdt's: carbon monoxide, carbon dioxide, calcium oxide, nitrogen oxides, sulfur oxides, magnesium oxide, oxides of sulfur, sodium oxide		

SECTION 5 - REACTIVITY DATA

Chemical Stability: Stable	If Yes, Under which Conditions? Not Applicable
Incompatibility with other substances: Yes	If yes, which ones? Strong Acids Strong Oxidizing agents Strong Bases
Reactivity, and under what conditions? heat, ignition sources, generation of dust, temperatures above 320°C	
Hazardous Decomposition Products: oxides of nitrogen, ammonia, carbon dioxide, aldehydes	

SECTION 6 - TOXICOLOGICAL PROPERTIES

Route of Entry	Skin Contact: Yes	Absorption: Yes	Eye Contact: Yes	Inhalation: Yes	Ingestion: Yes
Effects to Acute exposure to Product: Insufficient Data					
Effects to Chronic exposure to Product: Insufficient Data					
Exposure Limits (Value,Units,By) TITANIUM DIOXIDE: 10 mg/m3 ACGIH					
Irritancy (if yes, explain)					
Sensitization (if yes, explain)			Carcinogenicity (if yes, explain) TITANIUM DIOXIDE is possibly carcinogenic to humans(2B) by IARC.		
Reproductive Toxicity (if yes, explain)			Teratogenicity (if yes, explain)		
Mutagenicity (if yes, explain)			Synergistic Products (if yes, explain)		

SECTION 7 - PREVENTIVE MEASURES

Personal Protective Equipment	Gloves: No	Respirator: No	Eye: No	Footwear: No	Clothing: No	Other: No
If checked, specify type:						
Engineering controls (specify such as ventilation, enclosed process): Use mechanical ventilation to reduce exposure, ground all equipment and avoid exposure to open flames or sparks.						
Leak and Spill Procedure: Wear adequate protective equipment and eliminate all ignition sources. Contain spill with absorbant material and place in a suitable covered and labeled container for disposal.						
Waste Disposal: Check with Federal, Provincial and local government regulations and requirements for disposal.						
Handling Procedures and Equipment: Use in a well ventilated area. Do not use with incompatible substances and keep away from heat and all ignition sources. Use grounded and non-sparking equipment only.						
Storage Requirements: Store in a cool, well ventilated area out of direct sunlight. Store away from heat and all ignition sources. Storage facility should be manufactured out of fire resistant materials.						
Special Shipping Information: None Required						

SECTION 8 - FIRST AID MEASURES

Inhalation: Remove to fresh air. Get medical help if there is any breathing difficulty.

Ingestion: Do not induce vomiting unless directed by a physician. If conscious and alert, give two glasses of water. Seek medical attention immediately.

Skin Contact: Remove Contaminated clothing (including shoes) and wash before reuse. Flush with large amounts of soap and water. If irritation persists, seek medical attention.

Eye Contact: Flush eyes with large amounts of lukewarm water for 20 minutes, while holding eyelids open or until irritation subsides. If irritation persist, get medical attention.

SECTION 9 - PREPARATION INFORMATION

Prepared by: General Paint Technical Dept	Phone: (604) 253-3131	Preparation Date: Jun 29, 2012
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SAFETY DATA SHEET
LIQUITEX PROFESSIONAL SPRAY PAINT

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name LIQUITEX PROFESSIONAL SPRAY PAINT

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

Supplier: ColArt International SA
5 Rue Rene Panhard
Z.I .Nord
72021 Le Mans Cedex 2
+33 2 43 83 83 00
Lefranc-Bourgeois@colart.fr

1.4. Emergency telephone number

33 (0)2 43 83 83 00 This number is only available during office hours.

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (1999/45/EEC) R10.

2.2. Label elements

Risk Phrases	R10	Flammable.
Safety Phrases	A1	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
	A2	Do not spray on a naked flame or any incandescent material.
	S2	Keep out of the reach of children.
	S16	Keep away from sources of ignition - No smoking.
	S23	Do not breathe vapour/spray.
	S51	Use only in well-ventilated areas.
	S56	Dispose of this material and its container to hazardous or special waste collection point.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

2-DIMETHYLAMINOETHANOL	< 1%
CAS-No.: 108-01-0	EC No.: 203-542-8
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Corr. 1B - H314 STOT Single 3 - H335	Classification (67/548/EEC) R10 C;R34 Xn;R20/21/22
ACETONE	1-5%
CAS-No.: 67-64-1	EC No.: 200-662-2

Classification (EC 1272/2008) Flam. Liq. 2 - H225 EUH066 Eye Irrit. 2 - H319 STOT Single 3 - H336	Classification (67/548/EEC) F;R11 Xi;R36 R66 R67
Denatured alcohol	10-30
CAS-No.: 64-17-5	EC No.:
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Xn;R20/22. F;R11.
DIMETHYL ETHER	30-60%
CAS-No.: 115-10-6	EC No.: 204-065-8
Classification (EC 1272/2008) Flam. Gas 1 - H220	Classification (67/548/EEC) F+;R12
TRIETHYLAMINE	< 1%
CAS-No.: 121-44-8	EC No.: 204-469-4
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Corr. 1A - H314 STOT Single 3 - H335	Classification (67/548/EEC) F;R11 C;R35 Xn;R20/21/22

The Full Text for all R-Phrases and Hazard Statements is Displayed in Section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Information

Move the exposed person to fresh air at once.

Inhalation.

NOTE! Keep affected person away from heat, sparks and flames! Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep the affected person warm and at rest. Get prompt medical attention.

Ingestion

Immediately rinse mouth and provide fresh air. DO NOT INDUCE VOMITING! Get medical attention.

Skin Contact

Wash the skin immediately with soap and water. Remove contaminated clothing. Get medical attention if any discomfort continues.

Eye Contact

Spray in the eyes: Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Continue to rinse for at least 15 minutes and get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

4.3. Indication of any immediate medical attention and special treatment needed

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing Media

Use: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

5.2. Special hazards arising from the substance or mixture



MATERIAL SAFETY DATA SHEET

IN CASE OF EMERGENCY CALL CHEMTREC AT 1-800-424-9300

1. PRODUCT IDENTIFICATION AND COMPANY IDENTIFICATION:

Product Name: **PROVON®** Clear & Mild Foam Handwash

Company Name & Address: GOJO Industries, Inc.
One GOJO Plaza, Suite 500
Akron, OH 44311

Emergency Phone: 1-800-424-9300 CHEMTREC

Non-Emergency Phone: (330) 255-6000

MSDS Request Phone: (330) 255-6000 x8804

2. INFORMATION ON INGREDIENTS:

HAZARDOUS INGREDIENTS	CAS NUMBER	OSHA PEL	ACGIH TLV	% RANGE
Glycerin, as mist	56-81-5	TWA: 5 mg/m ³	TWA: 10 mg/m ³	< 5

Other ingredient(s) with notification requirements:	CAS NUMBER	List
Glycerin, as mist	56-81-5	MA 1; NJ; PA 1

3. HAZARDS IDENTIFICATION:

EMERGENCY OVERVIEW

When used according to instructions, the product applicable to this MSDS is safe and presents no immediate or long-term health hazard. However, abnormal entry routes, such as gross ingestion, may require immediate medical attention.

Potential Health Effects:

HMIS: Health 1 Flammability 1 Reactivity 0 Personal Protection None

Eye Contact: May cause eye irritation.
 Skin Contact: No irritation or reaction expected.
 Inhalation: Not applicable.
 Ingestion: May cause upset stomach, nausea (Abnormal entry route).
 Carcinogenicity: Not listed as a carcinogen by NTP, IARC, OSHA or ACGIH.

4. FIRST AID MEASURES:

Eye Contact: Do not rub eyes. Flush eyes thoroughly with water for 15 minutes. If condition worsens or irritation persists, contact physician.
 Skin Contact: Not applicable.
 Inhalation: Not applicable.
 Ingestion: Do not induce vomiting. Contact a physician or Poison Control Center.

5. FIRE FIGHTING MEASURES:

NFPA: Health 0 Fire 1 Reactivity 0

Flashpoint °F/°C (PMCC method): Not Determined

Unusual Fire and Explosion Hazards: None known.

Special Fire Fighting Procedures: None known.

Extinguishing Media: Water Fog Alcohol Foam CO₂ Dry Chemical Other

6. ACCIDENTAL RELEASE MEASURES:

No special requirements. Water clean up and rinse. CAUTION – WILL CAUSE SLIPPERY SURFACES.

7. HANDLING AND STORAGE:

Store at normal room temperature away from reach of small children. Keep containers sealed. Use older containers first. Avoid freezing conditions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Eye Protection: None required under normal conditions.

Skin Protection: None required under normal conditions.

Respiratory Protection: None required under normal conditions.

Ventilation: None required under normal conditions.

Protective Equipment or Clothing: None required under normal conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance and Odor Clear liquid, fragrance-free

pH (undiluted): 4.7 – 6.2

VOC, %: < 1%

10. STABILITY AND REACTIVITY:

Stable/Non reactive product.

11. TOXICOLOGICAL INFORMATION:

No acute or chronic toxic effects expected when used according to directions.

12. ECOLOGICAL CONSIDERATIONS:

No ecological or special considerations when used according to directions. Not considered environmentally harmful from normal dilution, expected usage and typical drainage to sewers, septic systems and treatment plants.

13. DISPOSAL CONSIDERATIONS:

No special considerations when disposed according to local, state and Federal regulations.

14. TRANSPORT INFORMATION:

Not classified as a hazardous material.

15. REGULATORY AND OTHER INFORMATION:

TSCA: All ingredients are listed or exempt per reference 15 USC 2602 (2)(B)(iv).

Complies with current FDA regulations for cosmetic and/or over-the-counter drug products.

WHMIS: not controlled

Notice: The information herein is based on data considered to be accurate as of the date of preparation of this material safety data sheet. However, no warranty or representation, expressed or implied, is made as to the accuracy or completeness of the foregoing data and safety information. The user assumes all liability for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.



Date:
Supercedes:

12 January 2011
5 January 2011

MATERIAL SAFETY DATA SHEET

IN CASE OF EMERGENCY CALL CHEMTREC AT 1-800-424-9300

1. PRODUCT IDENTIFICATION AND COMPANY IDENTIFICATION:

Product Name: **PURELL® SF607™ Instant Hand Sanitizing Foam**

Company Name & Address: GOJO Industries, Inc.
One GOJO Plaza, Suite 500
Akron, OH 44311

Emergency Phone: **1-800-424-9300 CHEMTREC**

Non-Emergency Phone: (330) 255-6000

MSDS Request Phone: (330) 255-6000 x8804

2. INFORMATION ON INGREDIENTS:

HAZARDOUS INGREDIENTS	CAS NUMBER	OSHA PEL	ACGIH TLV	% RANGE
None				

Other ingredient(s) with notification requirements:	CAS NUMBER	List
None		

3. HAZARDS IDENTIFICATION:

EMERGENCY OVERVIEW

When used according to instructions, the product applicable to this MSDS is safe and presents no immediate or long-term health hazard. However, abnormal entry routes, such as gross ingestion, may require immediate medical attention.

Potential Health Effects:

HMIS: Health 1 Flammability 0 Reactivity 0 Personal Protection None

Eye Contact: May cause eye irritation.
 Skin Contact: No irritation or reaction expected.
 Inhalation: Not applicable.
 Ingestion: May cause upset stomach, nausea (Abnormal entry route).
 Carcinogenicity: Not listed as a carcinogen by NTP, IARC, OSHA or ACGIH.

4. FIRST AID MEASURES:

Eye Contact: Do not rub eyes. Flush eyes thoroughly with water for 15 minutes. If condition worsens or irritation persists, contact physician.
 Skin Contact: Not applicable.
 Inhalation: Not applicable.
 Ingestion: Do not induce vomiting. Contact a physician or Poison Control Center.

5. FIRE FIGHTING MEASURES:NFPA: Health 0 Fire 0 Reactivity 0

Flashpoint °F/°C (PMCC method): > 212°F/ > 100°C

Unusual Fire and Explosion Hazards: None known.

Special Fire Fighting Procedures: None known.

Extinguishing Media: Water Fog Alcohol Foam CO₂ Dry Chemical Other**6. ACCIDENTAL RELEASE MEASURES:**

No special requirements. Water clean up and rinse. CAUTION – WILL CAUSE SLIPPERY SURFACES.

7. HANDLING AND STORAGE:

Store at normal room temperature away from reach of small children. Keep containers sealed. Use older containers first. Avoid freezing conditions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Eye Protection: None required under normal conditions.

Skin Protection: None required under normal conditions.

Respiratory Protection: None required under normal conditions.

Ventilation: None required under normal conditions.

Protective Equipment or Clothing: None required under normal conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance and Odor Clear to cloudy, water-thin liquid, no added fragrance

pH (liquid): 5.5 – 8.5

VOC, %: < 1%

10. STABILITY AND REACTIVITY:

Stable/Non reactive product.

11. TOXICOLOGICAL INFORMATION:

No acute or chronic toxic effects expected when used according to directions.

12. ECOLOGICAL CONSIDERATIONS:

No ecological or special considerations when used according to directions. Not considered environmentally harmful from normal dilution, expected usage and typical drainage to sewers, septic systems and treatment plants.

13. DISPOSAL CONSIDERATIONS:

No special considerations when disposed according to local, state and Federal regulations.

14. TRANSPORT INFORMATION:

Not classified as a hazardous material.

15. REGULATORY AND OTHER INFORMATION:

TSCA: All ingredients are listed or exempt per reference 15 USC 2602 (2)(B)(iv).

Complies with current FDA regulations for cosmetic and/or over-the-counter drug products.

WHMIS: Not controlled

Notice: The information herein is based on data considered to be accurate as of the date of preparation of this material safety data sheet. However, no warranty or representation, expressed or implied, is made as to the accuracy or completeness of the foregoing data and safety information. The user assumes all liability for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.



RID'Z ODOR™

RID'Z ODOR™ Eliminates unpleasant odors at the source. Effectively neutralizes malodors through molecular bonding, working long after the initial fragrance has dissipated. This unique formula contains quaternary ammonium, odor counteractants, cleaning agents and a powerful deodorizing fragrance.



Effective against: Use in

- | | |
|-----------------------|--------------|
| • Smoke & Fire Odors | Bathrooms |
| • Organic Odors | Kitchens |
| • Mold & Mildew Odors | Dumpsters |
| • Pet Odors | Trash Cans |
| • Vomit & Urine | Locker Rooms |
| | Urinals |
| | Toilet Bowls |
| | Sinks |

Fragrances include:

- Dessert Rain
- Dream-Cicle Orange
- Wild, Wild Cherry
- Lemon Drop

May be applied through routine damp mopping, carpet shampooing, hand spraying or misting.

Five gallon jug filling, secondary labeling and quart spray bottles are available.

Unbelievable! ® RID'Z ODOR

Directions

Use 1/2 oz./Gallon for routine damp mopping, deodorizing, carpet shampooing deodorizing, hand spraying or misting, or in portable toilets and rinse water.

Five gallon filling jug, secondary labeling and quart spray bottles are available for these products.

Ingredients: Water CAS# 7732-18-5, Alcohol blend CAS# 67-63-0, 64-17-5; Ethoxylated surfactant CAS# 66455-15-9; Fragrance blend CAS # N/A.

In Case of Spill: Clean up immediately. Place container in well ventilated area. To clean up spill, flush area with large quantities of water. Avoid run-off into storm sewers and ditches leading to natural waterways.

Not regulated in non-bulk shipment.

Health: 1

Fire: 2

Reactivity: 0

Special: 0

pH: 7—7.5

Wear appropriate barrier protection when handling .

Caution: Eye & Skin irritant—keep out of reach of children. Be aware that intentional misuse of product can cause eye and skin irritation.

In case of eye contact, flush with water for 15 minutes. In case of skin contact, wash with soap and water. If irritation persists, seek medical attention.

Do not ingest! If ingested, drink 2 glasses of water and seek medical attention immediately. Do not induce vomiting.

RECYCLE! Completely empty container and do not reuse. Rinse and recycle at a local facility and dispose in accordance with local, state and federal laws.

Questions?

Contact Core Products Co., Inc.

401 Industrial Rd., Canton, TX 75103

800.825.2673 or www.coreproductsco.com



Material Safety Data Sheet

24 Hour Assistance:

1-847-367-7700

Rust-Oleum Corp.

www.rustoleum.com



1. Identification

Product Name: STRUST +SSPR 6PK FLAT RUSTY METAL PRIMER
Revision Date: 8/2/2013
Product Number: 7769830
Product Use/Class: Primer/Aerosols
Supplier: Rust-Oleum Corporation
 11 Hawthorn Parkway
 Vernon Hills, IL 60061
 USA
Manufacturer: Rust-Oleum Corporation
 11 Hawthorn Parkway
 Vernon Hills, IL 60061
 USA
Prepared by: Regulatory Department

2. Hazard Identification

EMERGENCY OVERVIEW: Extremely flammable liquid and vapor. Vapors may cause flash fire or explosion. Harmful if inhaled. May affect the brain or nervous system causing dizziness, headache or nausea. Contents Under Pressure. May cause eye, skin, or respiratory tract irritation. KEEP OUT OF REACH OF CHILDREN. Harmful if inhaled. Harmful if swallowed. Causes eye irritation. Adequate ventilation necessary to keep exposures below recommended exposure limits, if any. Vapor Harmful. Causes Eye, Skin, Nose, and Throat Irritation.

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May cause skin irritation. Allergic reactions are possible.

EFFECTS OF OVEREXPOSURE - INHALATION: High gas, vapor, mist or dust concentrations may be harmful if inhaled. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage.

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

3. Composition/Information On Ingredients

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV- TWA	ACGIH TLV- STEL	OSHA PEL-TWA	OSHA PEL- CEILING
Liquefied Petroleum Gas	68476-86-8	30.0	N.E.	N.E.	N.E.	N.E.
Aliphatic Hydrocarbon	64742-89-8	10.0	100 ppm	N.E.	100 ppm	N.E.
Talc	14807-96-6	10.0	2 mg/m3	N.E.	0.1 mg/m3 [Respirable]	N.E.
Acetone	67-64-1	10.0	500 ppm	750 ppm	1000 ppm	N.E.
Xylene	1330-20-7	10.0	100 ppm	150 ppm	100 ppm	N.E.
Mineral Spirits	64742-88-7	10.0	100 ppm	N.E.	100 ppm	N.E.
Limestone	1317-65-3	5.0	N.E.	N.E.	15 mg/m3 [Total Dust]	N.E.
n-Butyl Acetate	123-86-4	5.0	150 ppm	200 ppm	150 ppm	N.E.
Ethylbenzene	100-41-4	5.0	20 ppm	125 ppm	100 ppm	N.E.

Barium Sulfate	7727-43-7	5.0	10 mg/m ³	N.E.	15 mg/m ³ [Total Dust]	N.E.
Crystalline Silica	14808-60-7	1.0	0.025 mg/m ³ [Respirable]	N.E.	0.1 mg/m ³ [Respirable]	N.E.

4. First-aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: If swallowed, get medical attention.

5. Fire-fighting Measures

Flash Point, °F -156 (Setaflash)

Extinguishing Media: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20 ° F. - EXTREMELY FLAMMABLE LIQUID AND VAPOR! Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. No unusual fire or explosion hazards noted. Keep containers tightly closed.

SPECIAL FIREFIGHTING PROCEDURES: Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of NFPA Class I flammable liquids. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials. Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat.

8. Exposure Controls/Personal Protection

ENGINEERING CONTROLS: Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

MATERIAL SAFETY DATA SHEET

Date Issued: 4/7/09

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SECTION I – COMPANY AND PRODUCT IDENTIFICATION

MANUFACTURER'S NAME

GARDNER-GIBSON CORPORATION

STREET ADDRESS

4161 E. 7TH AVENUE

CITY, STATE, AND ZIP CODE

TAMPA, FL 33605

EMERGENCY TELEPHONE NUMBER

1-800-424-9300 CHEMTREC

PRODUCT INFORMATION

813-248-2101

PRODUCT CLASS

Wall Repair Compound

MANUFACTURER'S CODE IDENTIFICATION

Product #7676-1-16

TRADE NAME

SMART Wall-Fix Non-Shrink Lightweight Spackling

SECTION II – HAZARDOUS INGREDIENTS

INGREDIENT	PERCENT By Weight	TLV PPM	PEL - TWA PPM
There are no hazardous ingredients in this product exceeding the reporting limits as defined by OSHA 29 CFR 1910.1200 (d)(5)(ii).	*	*	*

* = Not Hazardous

SECTION III – PHYSICAL DATA

BOILING RANGE: 212 - 215°F VAPOR DENSITY: HEAVIER THAN AIR
VAPOR PRESSURE: 25 mm Hg @ 68°F VOC: 0 g/L (less water and exempt compounds)
EVAPORATION RATE: SLOWER, THAN ETHER PERCENT VOLATILE by VOLUME: 20 - 22 % WEIGHT per GALLON: 4.0 Lbs.
SOLUBILITY IN WATER: Dispersible PHYSICAL STATE: Paste pH 7.0 - 8.0

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: WATER BASED – Not Applicable Explosion Hazard: Not Applicable

LEL – Not Applicable

EXTINGUISHING MEDIA - Carbon dioxide, dry chemical, foam, or water spray

UNUSUAL FIRE AND EXPLOSION HAZARDS – None

SPECIAL FIRE FIGHTING PROCEDURES - Water can be used to cool fire-exposed containers. Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals

SECTION V – REACTIVITY DATA

STABILITY: STABLE

CONDITIONS TO AVOID: Store away from strong oxidizing materials.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store in a cool, dry place. Keep container closed when not in use.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon oxides and traces of incompletely burned carbon compounds.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

MATERIAL SAFETY DATA SHEET

SMART Wall-Fix Non-Shrink Lightweight Spackling

Page 2 of 2

SECTION VI – HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE -

ACUTE EFFECTS:

EYES: Direct contact may cause slight to moderate irritation.

SKIN: May cause slight irritation to sensitive skin or open wounds.

INHALATION: May cause slight irritation to respiratory passages.

INGESTION: May cause nausea.

PROLONGED/REPEATED EXPOSURE EFFECTS:

SKIN: No known applicable information.

INHALATION: None known.

INGESTION: None known.

EMERGENCY FIRST AID PROCEDURES –

EYES: Flush with water for 15 minutes. Get medical attention if irritation persists.

SKIN: Wash with soap and water or waterless cleanser. Get medical attention if irritation develops or persists.

INHALATION: If symptoms develop, move to fresh air.

INGESTION: Do not induce vomiting. If symptoms develop, seek medical advice from a physician.

SECTION VII – SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Observe all personal protection equipment recommendations described in Section VIII. Wipe up or scrape up and contain for disposal. Final cleaning may require use of hot water and/or detergents. Dispose of saturated absorbent or cleaning materials appropriately.

WASTE DISPOSAL METHOD: Dispose of unused material in accordance with Federal, State, and Local Regulations.

SECTION VIII – PERSONAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: If sanding dried product, use with adequate ventilation.

SKIN PROTECTION: Chemical resistant gloves are recommended for prolonged exposure.

EYE PROTECTION: Safety glasses with side shields.

OTHER PROTECTIVE EQUIPMENT: None required.

SECTION IX – TRANSPORTATION and REGULATORY INFORMATION

DOT Proper Shipping Name: Not Regulated by D.O.T.

DOT Hazard Class: None

DOT UN/NA Number: None

Packing Group: None

SARA Title III - No substances are contained in this product subject to the reporting requirements of EPCRA Section 313 of the Super Fund Amendments and Reauthorization Act, 40 CFR Part 372.

TSCA Status: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

California Proposition 65 Required CHEMICAL WARNING (California Health and Safety Code #25249.5 et seq): This product contains chemicals known to the State of California to cause cancer, cause birth defects or reproductive harm.

SECTION X – OTHER INFORMATION

OTHER PRECAUTIONS: KEEP OUT OF THE REACH OF CHILDREN. Keep container closed when not in use to prevent the product from drying out. PROTECT FROM FREEZING.

Hazardous Materials Identification System (HMIS)

Health	Flammability	Reactivity	Personal Protection
1	0	0	B

Prepared by: Morton Jones
4-7-09

Product # 7676-1-16

Section 1 – Product and Company Identification

Product(s): **Stainless Steel Cleaner (Oil-Based)**
 Formula: A209
 Part Number(s): 20916, 20920

Company Name & Address:

ITW Professional Brands

805 E. Old 56 Hwy.
 Olathe, KS 66061
 800-443-9536 (8 a.m. – 5 p.m. Weekdays, CDT)

Emergency Numbers:

IN CASE OF EMERGENCY, CALL Infotrac @ 1-800-535-5053, 24 hrs.
INTERNATIONAL EMERGENCY NUMBER 352-323-3500
 Poison Control Center: 1-800-222-1222

Material Safety Data Sheets:

www.itwprobrands.com

Section 2 – Hazards Identification

DANGER. Contains petroleum distillates – aspiration hazard. Harmful or fatal if swallowed. Can enter lungs and cause damage. May cause eye, skin and respiratory tract irritation. Can cause central nervous system effects if improperly used. Contents under pressure.

Potential Health Effects

EYES: May cause eye irritation.

SKIN: May cause skin irritation.

INHALATION: May cause respiratory tract irritation.

INGESTION: Aspiration hazard. Harmful or fatal if swallowed.

Signs/symptoms of exposure: Redness, tearing or burning in eyes. Drying, burning or cracking of skin. Nose, throat, and digestive tract irritation. Headaches, nausea, vomiting, drowsiness, dizziness, loss of coordination. Medical conditions generally aggravated by exposure: pre-existing skin, lung and stomach disorders may be adversely affected. Follow good chemical hygiene practices to avoid these hazards.

HMIS Rating Health – 1 Flammability – 2 Reactivity – 0 Personal Protection – B

Section 3 – Composition/Information on Ingredients

Ingredient	CAS Number	Percent Range
Paraffins, Naphthenic Solvent	64742-47-8	60 – 100
White Mineral Oil	8042-47-5	10 – 30
Isobutane	75-28-5	7 – 13
Propane	74-98-6	1 – 5
Perfume (parfum)	Mixture	1 – 5

Any substance listed as hazardous by the states of California, Florida, Illinois, Michigan, New Jersey, Ohio, Pennsylvania or Texas is described above if known present in regulated concentrations.

Section 4 – First Aid Measures

EYES: Flush eyes with large amounts of water for at least 15 minutes while holding eyelids open. Seek medical attention immediately.

SKIN: Flush with plenty of water for 15 minutes while removing contaminated clothing and shoes. If irritation arises and persists seek medical attention. Launder clothing and shoes before reuse.

INHALATION: Move to fresh air. If breathing has stopped, qualified personnel should administer artificial respiration.

INGESTION: Do NOT induce vomiting unless directed by a physician. Aspiration hazard. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Section 5 – Fire Fighting Measures

Flashpoint (PMCC):	180° F
Extinguishing Media:	Carbon dioxide, dry chemical, foam.
Special Fire Fighting Procedures:	Keep containers cool and vapors down with water spray. Prevent runoff from entering sewers and public waterways. Wear self-contained breathing apparatus (SCBA) in chemical fires.
Hazardous Products of Combustion:	Carbon dioxide, carbon monoxide.

Section 6 – Accidental Release Measures

Small spill:	Wipe up small releases with a dry absorbent cloth or other absorbent material.
Large spill:	Ventilate area and block traffic. Eliminate all ignition sources. Absorb liquid with vermiculite, absorbent cloth, or other absorbent material. Prevent material from entering sewers and drains. Transfer contaminated material into suitable container for proper disposal.

Section 7 – Handling and Storage

Handling:	Avoid contact with eyes, skin and clothing. Avoid inhaling mists or vapors. Do not smoke while using. Use only with adequate ventilation. Do not swallow. Wash thoroughly after handling. Launder clothing before reuse. Do not deliberately concentrate and inhale vapors. Direct spray away from face. Spray can in upright position only. Follow good chemical hygiene practices when handling this material. Use from original container only and follow label directions carefully.
Storage:	Keep away from heat, sparks, open flame and direct sunlight. Store in a cool (less than 120° F) well-ventilated area. Keep out of reach of children. Do not contaminate water, food or feed by use or storage. Do not puncture or incinerate container. Replace cap when not in use.

Section 8 – Exposure Controls/Personal Protection

Engineering controls:	Ventilation not usually necessary but should be provided in the event of overexposure.
Exposure limits:	Paraffins, Naphthenic Solvent (CAS #64742-47-8)=152 ppm TWA Manufacturer's Recommendation Isobutane (75-28-5)=800 ppm OSHA; 800 ppm ACGIH Propane (CAS# 74-98-6)=1000 ppm OSHA; Asphyxiant ACGIH
Eye protection:	Yes, wear approved safety glasses or goggles if direct contact is possible.
Skin protection:	Yes, wear impervious gloves if direct contact is possible.
Respiratory protection:	Not usually necessary. If vapors are present or irritation is experienced, use NIOSH/MSHA approved respirator.

Section 9 – Physical and Chemical Properties

Appearance and Odor:	Colorless liquid with a lemon odor.	
pH:	Boiling Point: 420° F	Specific Gravity: 0.800
Vapor Density: >1	Flame Projection: > 12", no flashback	Solubility in Water: None
Pressure: 60 psig	Volatile Organic Compounds (VOCs): 12.56 % by weight	

Section 10 – Stability and Reactivity

Hazardous Polymerization:	This product will not undergo hazardous polymerization.
Hazardous Decomposition or Byproducts:	Carbon dioxide, carbon monoxide.
Chemical Stability:	Stable
Incompatible Materials:	Strong oxidizers, acids and alkalis.

Section 11 – Toxicological Information

No data.

Section 12 – Ecological Information

No data.



Stride Citrus HC Neutral Cleaner

HMIS		NFPA	Personal protective equipment
Health	2	3	
Flammability	0	0	
Physical Hazard / Instability	0	0	

Version Number: 4

Preparation date: 2014-03-26

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Stride Citrus HC Neutral Cleaner

MSDS #: MS0300438

Product Code: 04716, 5122613, 5970161, 100830376, 100830380

Recommended use:

- Neutral cleaner
- This product is intended to be diluted prior to use

Manufacturer, importer, supplier:

US Headquarters Diversey, Inc. 8310 16th St. Sturtevant, Wisconsin 53177-1964 Phone: 1-888-352-2249 MSDS Internet Address: www.diversey.com	Canadian Headquarters Diversey, Inc. - Canada 2401 Bristol Circle Oakville, Ontario L6H 6P1 Phone: 1-800-668-3131
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Emergency telephone number: 1-800-851-7145 (U.S.); 1-651-917-6133 (Int'l)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
WARNING. CAUSES EYE IRRITATION. MAY BE MILDLY IRRITATING TO SKIN.

Principal routes of exposure: Eye contact. Skin contact. Inhalation.

Eye contact: Severe eye irritation.

Skin contact: May be mildly irritating to skin.

Inhalation: May be irritating to nose, throat, and respiratory tract.

Ingestion: May cause irritation to mouth, throat and stomach.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS #	Weight %	LD50 Oral - Rat (mg/kg)	LD50 Dermal - Rabbit	LC50 Inhalation - Rat
Alcohol ethoxylates	68439-46-3	30 - 40%	1400	Not available	Not available

4. FIRST AID MEASURES

Eye contact: Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin contact: Flush immediately with plenty of water. If irritation develops, get medical attention.

Inhalation: If breathing is affected, remove to fresh air. Get medical attention.

Ingestion: Give a cupful of water or milk. THEN IMMEDIATELY CONTACT A PHYSICIAN OR POISON CENTER. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Aggravated Medical Conditions: None known.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: The product is not flammable. Extinguish fire using agent suitable for surrounding fire.
Extinguishing media which must not be used for safety reasons: No information available.
Specific hazards: Not applicable.
Unusual hazards: None known.

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Put on appropriate personal protective equipment (see Section 8.).
Environmental precautions and clean-up methods: Clean-up methods - large spillage. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use a water rinse for final clean-up.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes and clothing. Do not taste or swallow. Remove and wash contaminated clothing and footwear before re-use. Wash thoroughly after handling. Product residue may remain on/in empty containers. All precautions for handling the product must be used in handling the empty container and residue. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

Storage: Protect from freezing. Keep tightly closed in a dry, cool and well-ventilated place. KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures to reduce exposure:
No special ventilation requirements General room ventilation is adequate

Personal Protective Equipment

Eye protection: Chemical-splash goggles.
Hand protection: Chemical-resistant gloves
Skin and body protection: No special protective clothing is required.
Respiratory protection: No special protective clothing is required.
Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid	Bulk density: No information available
Appearance: Aqueous solution	Evaporation Rate: No information available
Specific gravity: 1.007	Color: Clear, Orange
Vapor density: No information available	Odor: Citrus
Boiling point/range: Not determined	Melting point/range: Not determined
Decomposition temperature: Not determined	Autoignition temperature: No information available
Solubility: Completely Soluble	Density: 8.4 lbs/gal 1.007 Kg/L
Solubility in other solvents: No information available	Flash point: > 200 °F > 93.3 °C
Partition coefficient (n-octanol/water): No information available	Viscosity: No information available
Elemental Phosphorus: 0.00 % by wt.	VOC: 1 % *
pH: 7.3	Dilution pH: 7.4 @ 1:200
Explosion limits: - upper: Not determined - lower: Not determined	

* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

10. STABILITY AND REACTIVITY

Stability: The product is stable
Polymerization: Hazardous polymerization does not occur.
Hazardous decomposition products: None reasonably foreseeable.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Oral LD50 estimated to be greater than 5000 mg/kg; Dermal LD50 estimated to be > 2000 mg/kg
Component Information: See Section 3.

Chronic toxicity: None known

Specific effects

Carcinogenic effects: • None known
 Mutagenic effects: None known
 Reproductive toxicity: None known
 Target organ effects: None known

12. ECOLOGICAL INFORMATION

Environmental Information: No data available.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products:
 This product, as sold, if discarded or disposed, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Dispose in compliance with all Federal, state, provincial, and local laws and regulations. This product, when diluted as stated on this MSDS, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.
 RCRA Hazard Class (undiluted product): Not Regulated

14. TRANSPORT INFORMATION

DOT/TDG/IMDG: Please refer to the Diversey HazMat Library, only available through Internet Explorer, <http://naextranet.diversey.com/dot/>, for up to date shipping information.
DOT (Ground) Bill of Lading Description: CLEANING, WASHING, BUFFING, OR POLISHING COMPOUNDS LIQUID
IMDG (Ocean) Bill of Lading Description: Same as DOT above.

15. REGULATORY INFORMATION

International Inventories at CAS# Level
 All components of this product are listed on the following inventories: U.S.A. (TSCA), Canada (DSL/NDL).

U.S. Regulations
 California Proposition 65: This product is not subject to the reporting requirements under California's Proposition 65.

RIGHT TO KNOW (RTK)

Ingredient(s)	CAS #	MARTK:	NJRTK:	PARTK:	RIRTK:
Water	7732-18-5	-	-	-	-
Alcohol ethoxylates	68439-46-3	-	-	-	-
Sodium xylene sulfonate	1300-72-7	-	-	-	-
Coconut fatty acid	61788-47-4	-	-	-	-

CERCLA/ SARA

SARA 311/312 Hazard Categories

Immediate: X
 Delayed: -
 Fire: -
 Reactivity: -
 Sudden Release of Pressure: -

Canada

WHMIS hazard class: D2B Toxic materials.



16. OTHER INFORMATION

Reason for revision: Not applicable

Prepared by:
Additional advice:

NAPRAC

- Contains an added fragrance, see "Odor" heading in section 9 for specific description
- This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations

Notice to Reader: This document has been prepared using data from sources considered technically reliable. It does not constitute a warranty, express or implied, as to the accuracy of the information contained within. Actual conditions of use and handling are beyond seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all Federal, State, Provincial and Local laws and regulations.

Inhalation (Breathing): If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.

5 – Fire Fighting Measures

Extinguishing Media: Use water fog, dry chemical, carbon dioxide or foam. Do not use water jet or flooding amounts of water. Burning product will float on the surface and spread fire.

Special Fire Fighting Procedures: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting containers.

Unusual Fire and Explosion Hazards: Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back.

6 – Accidental Release Measures

Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area. Leaking cans should be placed in a plastic bag or open pail until the pressure has dissipated. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly. Report spills to authorities as required.

7 – Handling and Storage

Handling: Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing vapors or aerosols. Use only with adequate ventilation. Keep away from heat, sparks, pilot lights, hot surfaces and open flames. Unplug electrical tools, motors and appliances before spraying or bringing the can near any source of electricity. Electricity can burn a hole in the can and cause contents to burst into flames. To avoid serious burn injury, do not let the can touch battery terminals, electrical connections on motors or appliances or any other source of electricity. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture, crush or incinerate containers, even when empty.

Storage: Store in a cool, well-ventilated area, away from incompatible materials. Do not store above 120°F or in direct sunlight. U.F.C (NFPA 30B) Level 3 Aerosol.

8 – Exposure Controls/Personal Protection

Chemical	Occupational Exposure Limits
Aliphatic Hydrocarbon	1200 mg/m ³ TWA (manufacturer recommended)
Petroleum Base Oil	5 mg/m ³ TWA, 10 mg/m ³ STEL ACGIH TLV 5 mg/m ³ TWA OSHA PEL
LVP Aliphatic Hydrocarbon	1200 mg/m ³ TWA (manufacturer recommended)
Carbon Dioxide	5000 ppm TWA (OSHA/ACGIH), 30,000 ppm STEL (ACGIH)
Non-Hazardous Ingredients	None Established

The Following Controls are Recommended for Normal Consumer Use of this Product

Engineering Controls: Use in a well-ventilated area.

Personal Protection:

Eye Protection: Avoid eye contact. Always spray away from your face.

Skin Protection: Avoid prolonged skin contact. Chemical resistant gloves recommended for operations where skin contact is likely.

Respiratory Protection: None needed for normal use with adequate ventilation.

For Bulk Processing or Workplace Use the Following Controls are Recommended

Engineering Controls: Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.

Personal Protection:

Eye Protection: Safety goggles recommended where eye contact is possible.

Aceto-Orcein Solution, 2%

MSDS # 7.00

Scholar
Chemistry**Section 1: Product and Company Identification****Aceto-Orcein Solution, 2%****Synonyms/General Names:** N/A.**Product Use:** For educational use only.**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Deep red liquid; vinegar odor.***WARNING!** Corrosive to body tissue and moderately toxic by ingestion.

Flammable liquid, keep away from all ignition sources.

Target organs: Respiratory system, eyes, skin, teeth

HMIS (0 to 4)

Health	2
Fire Hazard	1
Reactivity	0

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Acetic Acid, (64-19-7), 45%.

Orcein, (1400-62-0), 2%.

Water, (7732-18-5), 53%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. *Do not induce vomiting.* Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**White****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Corrosive Area [White Storage] with other corrosive items. Store in a dedicated corrosive cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an acid/organic cartridge. Exposure guidelines Acetic Acid: OSHA PEL: 25 mg/m³ and ACGIH TLV: 10 ppm, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	N/A.	Appearance	Light red liquid.
Molecular weight	N/A.	Odor	Vinegar odor.
Specific Gravity	N/A.	Odor Threshold	N/A.
Vapor Density (air=1)	2.07.	Solubility	Complete.
Melting Point	~0°C.	Evaporation rate	N/A (<i>Butyl acetate = 1</i>).
Boiling Point/Range	~108°C.	Partition Coefficient	N/A (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and ignition sources.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Oxidizing agents, hydrogen peroxide, nitric acid, perchloric acid or chromium trioxide; strong alkalis.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, damage to cornea, conjunctivitis, loss of vision. *Skin:* Redness, blistering, burning, itching, tissue destruction with slow healing. *Ingestion:* Nausea, vomiting, burning, diarrhea, ulceration, convulsions, shock. *Inhalation:* Coughing, wheezing, shortness of breath, headache, spasm, inflammation and edema of bronchi, pneumonitis.

Chronic Effects: Repeated/prolonged skin contact may cause thickening, blackening or cracking. Repeated eye exposure may cause corneal erosion or loss of vision.

Sensitization: none expected

Acetic acid: LD50 [oral, rat]; 3310 mg/kg; LC50 [rat]; >16000 (4 hour); LD50 Dermal [rabbit]; 1120 mg/kg
Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer disposal after being neutralized to pH 7.

Section 14: Transport Information

DOT Shipping Name:	Acetic Acid Solution.	Canada TDG:	Acetic Acid Solution.
DOT Hazard Class:	8, pg III.	Hazard Class:	8, pg III .
Identification Number:	UN2790.	UN Number:	UN2790.

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: Not WHMIS controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed .

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

Adrenaline Chloride Solution, 0.1%Scholar
Chemistry

MSDS # 14.00

Section 1: Product and Company Identification**Adrenaline Chloride Solution, 0.1%****Synonyms/General Names:** Epinephrine.**Product Use:** For educational use only.**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Clear, colorless liquid; no odor.***WARNING!** Moderately toxic by ingestion

Target organs: Heart, circulatory system.

HMIS (0 to 4)

Health	2
Fire Hazard	0
Reactivity	0

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

L-Epinephrine, (55-31-2), <1%

Sodium Metabisulfite (7681-57-4), <1%

Water (7732-18-5), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Noncombustible solution. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place in sealed bag or container for disposal. Ventilate and wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage Green**Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Exposure guidelines: L-Epinephrine: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	Mixture.	Appearance	Clear, colorless liquid.
Molecular weight	N/A.	Odor	No odor.
Specific Gravity	1.00 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble.
Melting Point	N/A.	Evaporation rate	N/A (Butyl acetate = 1).
Boiling Point/Range	N/A.	Partition Coefficient	N/A (log P _{OW}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and ignition sources.
Stability: Stable under normal conditions of use and storage.
Incompatibility: Oxidizing and alkaline materials.
Shelf life: Poor Shelf life, protect from light and heat.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.
Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,
Chronic Effects: No information found.
Sensitization: none expected
L-Epinephrine: LD50 [oral, rat]; 24 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A
Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name:	Not regulated by DOT.	Canada TDG:	Not regulated by TDG.
DOT Hazard Class:		Hazard Class:	
Identification Number:		UN Number:	

Section 15: Regulatory Information

EINECS: Not Listed.	WHMIS Canada: Not WHMIS Controlled.
TSCA: All components are listed or are exempt.	California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Agar

Scholar
Chemistry

MSDS # 15.00

Section 1: Product and Company Identification**Agar****Synonyms/General Names:** Agar.**Product Use:** For educational use only.**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White to light tan, powder, flakes or granular solid; characteristic bland odor.***HMIS (0 to 4)**

Health	0
Fire Hazard	0
Reactivity	0

This material is not considered hazardous.

Target organs: None known

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

Section 3: Composition / Information on Ingredients

Agar, (9002-18-0), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Non flammable solid. When heated to decomposition, emits acrid fumes of carbon oxides.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an dust cartridge. Exposure guidelines: Agar: OSHA PEL: Not Available, ACGIH: TLV: Not Available, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	(C ₁₂ H ₁₈ O ₉) _x	Appearance	White to light tan powder, flakes or granular solid.
Molecular weight	N/A.	Odor	Bland odor.
Specific Gravity	N/A.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in boiling water; forms gels.
Melting Point	Decomposes.	Evaporation rate	N/A (Butyl acetate = 1).
Boiling Point/Range	N/A.	Partition Coefficient	N/A (log P _{ow}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.
Stability: Stable under normal conditions of use and storage.
Incompatibility: Strong oxidizers and alkalis.
Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.
Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,
Chronic Effects: No information found.
Sensitization: none expected
Agar: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A
Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name:	Not regulated by DOT.	Canada TDG:	Not regulated by TDG.
DOT Hazard Class:		Hazard Class:	
Identification Number:		UN Number:	

Section 15: Regulatory Information

EINECS: Not listed.	WHMIS Canada: Not WHMIS Controlled.
TSCA: All components are listed or are exempt.	California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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MSDS Number: A1856 ***** Effective Date: 09/22/09 ***** Supersedes: 08/03/07

MSDS Material Safety Data Sheet

From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2151
CHEMTREC: 1-800-424-9300
National Response in Canada
CANUTEC: 613-996-6666
Outside U.S. And Canada
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

AGAR AGAR

1. Product Identification

Synonyms: Polysaccharide Complex
CAS No.: 9002-18-0
Molecular Weight: Not applicable.
Chemical Formula: Not applicable.
Product Codes: A434

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
ar	9002-18-0	90 - 100%	No

3. Hazards Identification

Emergency Overview

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 0 - None
Flammability Rating: 0 - None
Reactivity Rating: 0 - None
Contact Rating: 0 - None
Lab Protective Equip: GOGGLES; LAB COAT
Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation:
No adverse health effects via inhalation.
Ingestion:
Not expected to be a health hazard via ingestion.
Skin Contact:
Not expected to be a health hazard from skin exposure.
Eye Contact:
Not expected to be a health hazard.
Chronic Exposure:
No adverse health effects expected.
Aggravation of Pre-existing Conditions:
No information found.

4. First Aid Measures

Inhalation:

Not expected to require first aid measures. Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:

Not expected to require first aid measures. If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact:

Not expected to require first aid measures. Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact:

Not expected to require first aid measures. Wash thoroughly with running water. Get medical advice if irritation develops.

5. Fire Fighting Measures

Fire:

Not considered to be a fire hazard.

Explosion:

Not considered to be an explosion hazard.

Fire Extinguishing Media:

Use any means suitable for extinguishing surrounding fire.

Special Information:

Use protective clothing and breathing equipment appropriate for the surrounding fire.

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

None established.

Ventilation System:

Not expected to require any special ventilation.

Personal Respirators (NIOSH Approved):

Not expected to require personal respirator usage.

Skin Protection:

Wear protective gloves and clean body-covering clothing.

Eye Protection:

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

Transparent strips, or thin translucent membranous pieces, or white to pale buff fine or coarse powder.

Odor:

Odorless.

Solubility:

Negligible (< 0.1%)

Specific Gravity:

No information found.

pH:

No information found.

% Volatiles by volume @ 21C (70F):

0

Boiling Point:

No information found.

Melting Point:

No information found.

Vapor Density (Air=1):

Not applicable.

Vapor Pressure (mm Hg):

Not applicable.
 Evaporation Rate (BuAc=1):
 No information found.

10. Stability and Reactivity

Stability:
 Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products:
 Carbon dioxide and carbon monoxide may form when heated to decomposition.
Hazardous Polymerization:
 Will not occur.
Incompatibilities:
 Strong oxidizers.
Conditions to Avoid:
 Moisture and incompatibles.

11. Toxicological Information

Agar: 11 gm/kg rat oral LD50. Investigated as a tumorigen.

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Agar (9002-18-0)	No	No	None

12. Ecological Information

Environmental Fate:
 No information found.
Environmental Toxicity:
 No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

Ingredient	-----\Chemical Inventory Status - Part 1\-----			
	TSCA	EC	Japan	Australia
Agar (9002-18-0)	Yes	Yes	No	Yes

Ingredient	-----\Chemical Inventory Status - Part 2\-----			
	Korea	---Canada--- DSL	NDSL	Phil.
Agar (9002-18-0)	Yes	Yes	No	Yes

Ingredient	-----\Federal, State & International Regulations - Part 1\-----			
	-SARA 302- RQ TPQ		-----SARA 313----- List Chemical Catg.	
Agar (9002-18-0)	No	No	No	No

Ingredient	-----\Federal, State & International Regulations - Part 2\-----		
	CERCLA	-RCRA- 261.33	-TSCA- 8(d)
Agar (9002-18-0)			

Agar (9002-18-0) No No No

International Weapons Convention: No TSCA 12(b): No CDTA: No
GHS 311/312: Acute: No Chronic: No Fire: No Pressure: No
Reactivity: No (Pure / Solid)

Australian Hazchem Code: None allocated.

Poison Schedule: None allocated.

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 0 Flammability: 0 Reactivity: 0

Label Hazard Warning:

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

Label Precautions:

None.

Label First Aid:

Not applicable.

Product Use:

Laboratory Reagent.

Revision Information:

No Changes.

Disclaimer:

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Prepared by: Environmental Health & Safety
Phone Number: (314) 654-1600 (U.S.A.)

Aluminum

Scholar
Chemistry

MSDS # 27.00

Section 1: Product and Company Identification**Aluminum****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Silver-gray metal granules, shots, sheets or strips; no odor.*

This material is not considered hazardous.

Target organs: None known.

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

HMIS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

Section 3: Composition / Information on Ingredients

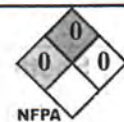
Aluminum, (7429-90-5), >99.5%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Nonflammable solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Exposure guidelines: Aluminum: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	Al.	Appearance	Silver-gray metal.
Molecular weight	26.98.	Odor	No odor.
Specific Gravity	2.7 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Insoluble.
Melting Point	N/A.	Evaporation rate	N/A (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizers, mineral acids, strong alkalis, heat, water, halogenated, hydrocarbons.,

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Aluminum: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (231-072-3).

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

Ammonia (Household)Scholar
Chemistry

MSDS # 38.00

Section 1: Product and Company Identification**Ammonia (Household)****Synonyms/General Names:** Ammonium Hydroxide Aqueous**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Cloudy, colorless liquid, strong ammonia odor***WARNING!** Body tissue irritant and inhalation hazard.

Target organs: Eyes, Skin, mucous membranes

HMIS (0 to 4)

Health	2
Fire Hazard	0
Reactivity	0

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Ammonium Hydroxide (1336-21-6), 3-5% (as Ammonia).

Water (7732-18-5), 95-97%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Non-flammable liquid. When heated to decomposition, emits toxic fumes of ammonia and NOx.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place in sealed bag or container for disposal. Ventilate and wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Ammonia: OSHA PEL: 35 mg/m³, ACGIH: TLV: 17 mg/m³, STEL: 24 mg/m³.

Section 9: Physical and Chemical Properties

Molecular formula	NH ₃	Appearance	Cloudy, colorless liquid.
Molecular weight	17.03.	Odor	Strong ammonia odor.
Specific Gravity	0.9616 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	0.7.	Solubility	Soluble in water.
Melting Point	N/A.	Evaporation rate	N/A (<i>Butyl acetate = 1</i>).
Boiling Point/Range	100°C.	Partition Coefficient	N/A (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	14 mmHg.	pH	10, basic.
Flash Point:	N/A.	UEL	N/A.
Autoignition Temp.:	N/A.	LEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Oxidizing agents, acids, halogens, heavy metals.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Severe eye irritant. Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching. *Ingestion:* Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath.

Chronic Effects: No information found.

Sensitization: none expected

Ammonia LD50 [oral, rat]; 350 mg/kg; LCLo [hmn]; 408 ppm; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name:	Not Regulated.	Canada TDG:	Not Regulated.
DOT Hazard Class:	N/A.	Hazard Class:	N/A.
Identification Number:	N/A.	UN Number:	N/A.

Section 15: Regulatory Information

EINECS: Listed (215-647-6)

WHMIS Canada: E, Corrosive materials.

TSCA: All components are listed or are exempt

California Proposition 65: Not listed

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Ammonium ChlorideScholar
Chemistry

MSDS # 42.00

Section 1: Product and Company Identification**Ammonium Chloride****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White crystalline powder; no odor.***HMIS (0 to 4)**

Health	1
Fire Hazard	0
Reactivity	0

CAUTION! Slightly toxic by ingestion.

Target organs: None known

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Ammonium chloride, (12125-02-9), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Nonflammable solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Ammonium Chloride: OSHA PEL: N/A, ACGIH: TLV: 10 mg/m³, STEL: 20 mg/m³.

Section 9: Physical and Chemical Properties

Molecular formula	NH ₄ Cl.	Appearance	White crystalline powder;
Molecular weight	53.49.	Odor	No odor.
Specific Gravity	1.52 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble.
Melting Point	520°C.	Evaporation rate	N/A (<i>Butyl acetate = 1</i>).
Boiling Point/Range	Sublimes @ 340°C.	Partition Coefficient	N/A (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	5.5, acidic.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Oxidizing agents, acids, bases, lead and silver salts.

Shelf life: Fair shelf life, store in a cool, dry environment. Hygroscopic..

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Ammonium Chloride: LD50 [oral, rat]; 1650 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (235-186-4) .

WHMIS Canada: D2B-Toxic Material.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Ammonium NitrateScholar
Chemistry

MSDS # 53.00

Section 1: Product and Company Identification**Ammonium Nitrate****Synonyms/General Names:** Nitric Acid, Ammonium Salt**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White crystals or prills; no odor.***WARNING!** Strong oxidizing agent and slightly toxic by ingestion.
Target organs: Kidneys, liver, blood.**HMIS (0 to 4)**

Health	1
Fire Hazard	0
Reactivity	3

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

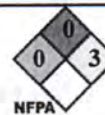
Ammonium nitrate, (6484-52-2), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.
Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Strong Oxidizer. When heated to decomposition, emits acrid fumes of NOx.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage Yellow**Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Oxidizer Storage Area [Yellow Storage] with other oxidizers and away from any combustible materials. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge.
Exposure guidelines: Ammonium Nitrate: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	NH ₄ NO ₃	Appearance	White crystals or prills;
Molecular weight	80.04.	Odor	No odor.
Specific Gravity	1.72 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble.
Melting Point	169.6°C.	Evaporation rate	N/A (Butyl acetate = 1).
Boiling Point/Range	Decomposes @ 210°C.	Partition Coefficient	N/A (log P _{ow}).
Vapor Pressure (20°C)	N/A.	pH	5, acidic.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A..	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and ignition sources.

Stability: Stable under normal conditions of use and storage. Hygroscopic

Incompatibility: Peroxides, strong oxidizers, reducing materials, organic materials and acids.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: Possible allergen

Ammonium Nitrate: LD50 [oral, rat]; 2217 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (229-347-8).

WHMIS Canada: C; Oxidizing material.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Balsam, CanadaScholar
Chemistry

MSDS # 74.00

Section 1: Product and Company Identification**Balsam, Canada**

Synonyms/General Names: N/A

Product Use: For educational use only

Manufacturer: Columbus Chemical Industries, Inc., Columbus, WI 53925.

24 Hour Emergency Information Telephone Numbers

CHEMTREC (USA): 800-424-9300

CANUTEC (Canada): 613-424-6666

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification

Yellow liquid; pine odor.

This material is not considered hazardous.

Target organs: None known

HMIS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

Section 3: Composition / Information on Ingredients

Balsam, Canada (8007-47-4), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skins, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an dust cartridge. Exposure guidelines: Balsam: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	N/A.	Appearance	Yellow liquid.
Molecular weight	N/A.	Odor	Pine odor.
Specific Gravity	N/A.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Insoluble.
Melting Point	N/A.	Evaporation rate	N/A (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: May react or be incompatible with oxidizing materials.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Balsam: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: None listed.

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

Barium Chloride, AnhydrousScholar
Chemistry

MSDS # 79.00

Section 1: Product and Company Identification**Barium Chloride, Anhydrous****Synonyms/General Names:** Barium Dichloride**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White crystalline powder; no odor.***WARNING!** Highly toxic by ingestion and skin irritant.

Target organs: Circulatory system, Central nervous system, kidneys

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

HMIS (0 to 4)

Health	3
Fire Hazard	0
Reactivity	0

Section 3: Composition / Information on Ingredients

Barium Chloride, Dihydrate (10361-37-2), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Non-flammable solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Blue****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Toxic Storage Area [Blue Storage] with other toxic material. Store in a dedicated poison cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Barium compounds: OSHA PEL: 0.5 mg/m³, ACGIH: TLV: 0.5 mg/m³, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	BaCl ₂	Appearance	White crystalline powder.
Molecular weight	208.25.	Odor	No odor.
Specific Gravity	3.097 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	7.21.	Solubility	31 grams/100 mL. water @ 0°C.
Melting Point	925°C.	Evaporation rate	N/A (<i>Butyl acetate = 1</i>).
Boiling Point/Range	1560 °C.	Partition Coefficient	N/A (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use and storage. Avoid heat and ignition sources.

Incompatibility: Strong oxidizers, acids

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Barium Chloride: LD50 [oral, rat]; 118 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Barium Chloride LC50; 870 mg/L (*Leuciscus idus*)
Contains a heavy metal – toxic to terrestrial and aquatic plants and animals. Do not release to environment.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Use a licensed chemical waste disposal firm for proper disposal.

Section 14: Transport Information

DOT Shipping Name:	Barium compounds, n.o.s.	Canada TDG:	Barium compounds, n.o.s.
DOT Hazard Class:	6.1, pg III.	Hazard Class:	6.1, pg III.
Identification Number:	UN1564.	UN Number:	UN1564.

Section 15: Regulatory Information

EINECS: Listed (233-788-1).

WHMIS Canada: D1B: Toxic material causing immediate/serious effects.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Benedicts Quantitative SolutionScholar
Chemistry

MSDS # 92.00

Section 1: Product and Company Identification**Benedicts Quantitative Solution****Synonyms/General Names:** Benedict's Sugar Test Reagent**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Light blue liquid; ammonia odor.***CAUTION!** Slightly toxic by ingestion.

Target organs: Liver, kidneys

HMIS (0 to 4)

Health	1
Fire Hazard	0
Reactivity	0

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Cupric Sulfate, (7758-98-7) 1-2% .

Sodium Citrate, (68-04-2), 16-17% .

Potassium Thiocyanate (333-20-0), 10-11%.

Sodium Carbonate, (497-19-8), 6-7%.

Potassium Ferrocyanide, trihydrate (14459-95-1) <1%.

Water, (7732-18-5), 62-63%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Noncombustible solution. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place in sealed bag or container for disposal. Ventilate and wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Exposure guidelines: Copper (II) Sulfate: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A, Sodium Carbonate: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A, Sodium Citrate: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A, Potassium Ferrocyanide: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A, Potassium Thiocyanate: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	Mixture.	Appearance	Light blue liquid.
Molecular weight	N/A.	Odor	Ammonia odor.
Specific Gravity	1.24 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Complete.
Melting Point	N/A.	Evaporation rate	N/A . (Butyl acetate = 1).
Boiling Point/Range	N/A.	Partition Coefficient	N/A . (log P _{OW}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use and storage. Avoid heat and moisture.

Incompatibility: Acids, strong oxidizers.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found. **Sensitization:** none expected

Copper (II) Sulfate: LD50 [oral, rat]; 300 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Sodium Carbonate: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Sodium Citrate: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Potassium Ferrocyanide: LD50 [oral, rat]; 6400 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Potassium Thiocyanate: LD50 [oral, rat]; 854 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Not Listed .

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exemp.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Bisacodyl

Green

[Pronunciation: *biss ah COE dill*]

Brand Names: Alophen, Biso-Plex, Bisac-Evac, Bisco-Lax, Bisalax, *healthwise* Little Pills, Colax, Dulcogen, Dulcolax, Evac-U-Gen, Fleet Bisacodyl, *Walden*

What is the most important information I should know about bisacodyl?



Do not use bisacodyl if you have stomach (abdominal) pain, nausea, or vomiting, unless directed by a doctor.

If you notice a sudden change in bowel habits that persists over a period of 2 weeks, consult your healthcare provider before using a laxative.



Bisacodyl products should not be used for longer than one week, unless otherwise directed by your healthcare provider.

Rectal bleeding or failure to have a bowel movement after use of a laxative may indicate a more serious condition. Stop using bisacodyl and contact your healthcare provider.

What is bisacodyl?

Bisacodyl is a stimulant laxative. It causes muscles in the colon to contract and stools to pass.

Bisacodyl is used to treat constipation and to cause evacuation of the colon.

Bisacodyl may also have uses other than those listed in this product guide.

What should I discuss with my healthcare provider before taking bisacodyl?



Do not take bisacodyl without first talking to your doctor if you have abdominal (stomach) pain, nausea, or vomiting. You may not be able to take bisacodyl or you may require special monitoring.

If you notice a sudden change in bowel habits that persists over a period of 2 weeks, consult your healthcare provider before using a laxative.



Do not take bisacodyl without first talking to your doctor if you are pregnant.



Do not take bisacodyl without first talking to your doctor if you are breast-feeding a baby.

Some forms of bisacodyl are formulated for use by children. Talk to the child's doctor before using this product to treat a child.

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What does my medication look like?

Bisacodyl is available over-the-counter generically and under many brand names in several formulations. Ask your pharmacist any questions you have about this medication, especially if it is new to you.

Remember, keep this and all other medicines out of the reach of children, never share your medicines with others, and use this medication only for the indication prescribed.

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Last Updated: 02/13/2004

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Biuret Reagent SolutionScholar
Chemistry

MSDS # 102.00

Section 1: Product and Company Identification**Biuret Reagent Solution****Synonyms/General Names:** Biuret Solution For Protein Test**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Blue liquid; no odor.***HMIS (0 to 4)**

Health	2
Fire Hazard	0
Reactivity	0

DANGER! Corrosive to all body tissue and may be fatal if swallowed.

Target organs: None known

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Sodium Hydroxide, (1310-73-2), 30-31%.

Cupric Sulfate, (7758-99-8), <1%.

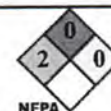
Water, (7732-18-5), 69-70%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. *Do not induce vomiting.* Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Nonflammable solution. When heated to decomposition, emits acid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place in sealed bag or container for disposal. Ventilate and wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**White****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Corrosive Area [White Storage] with other corrosive items. Store in a dedicated corrosive cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an acid/organic cartridge. Exposure guidelines Sodium Hydroxide: OSHA PEL: 2 mg/m³, ACGIH TLV: N/A, STEL: 2 mg/m³ ceiling.

Section 9: Physical and Chemical Properties

Molecular formula	N/A.	Appearance	Blue liquid.
Molecular weight	103.08.	Odor	No odor.
Specific Gravity	1.33 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble.
Melting Point	N/A.	Evaporation rate	N/A (Butyl acetate = 1).
Boiling Point/Range	N/A.	Partition Coefficient	N/A (log P _{ow}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use and storage.

Incompatibility: Acids, oxidizing materials, metals.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, damage to cornea, conjunctivitis, loss of vision. *Skin:* Redness, blistering, burning, itching, tissue destruction with slow healing. *Ingestion:* Nausea, vomiting, burning, diarrhea, ulceration, convulsions, shock. *Inhalation:* Coughing, wheezing, shortness of breath, headache, spasm, inflammation and edema of bronchi, pneumonitis.

Chronic Effects: Repeated/prolonged skin contact may cause thickening, blackening or cracking. Repeated eye exposure may cause corneal erosion or loss of vision.

Sensitization: none expected

Sodium Hydroxide: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial):

Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer disposal after being neutralized to pH 7.

Section 14: Transport Information

DOT Shipping Name:	Sodium Hydroxide Solution.	Canada TDG:	Sodium Hydroxide Solution .
DOT Hazard Class:	8, pg II .	Hazard Class:	8, pg II .
Identification Number:	UN1824 .	UN Number:	UN1824 .

Section 15: Regulatory Information

EINECS: Not listed .

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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MSDS # 105.00

Borax Solution 1%*Powder*

Page 1 of 2

Scholar
Chemistry**Section 1: Product and Company Identification****Borax Solution 1%****Synonyms/General Names:** Sodium tetraborate solution, sodium borate solution**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Clear colorless liquid; no odor.***HMIS (0 to 4)**

Health	1
Fire Hazard	0
Reactivity	0

CAUTION! Body tissue irritant and slightly toxic by ingestion

Target organs: None Known

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Sodium Borate, (1303-96-4), 1%.

Water, (7732-18-5), 99%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Noncombustible solution. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place in sealed bag or container for disposal. Ventilate and wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an dust cartridge. Exposure guidelines: Borax: OSHA PEL: Not Available, ACGIH: TLV: 2 mg/m³, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	Na ₂ B ₄ O ₇	Appearance	Clear liquid.
Molecular weight	N/A.	Odor	No odor.
Specific Gravity	1.00 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	0.7 (water).	Solubility	Complete.
Melting Point	0 °C.	Evaporation rate	N/A . (Butyl acetate = 1).
Boiling Point/Range	100°C.	Partition Coefficient	N/A . (log P _{ow}).
Vapor Pressure (20°C)	14 (water).	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizers, acids,

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Borax: LD50 [oral, rat]; 2660 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

Bromothymol BlueScholar
Chemistry

MSDS # 116.00

Section 1: Product and Company Identification**Bromothymol Blue****Synonyms/General Names:** Bromothymol Blue, pH Indicator**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Greenish violet powder; no odor.*

This material is not considered hazardous.

Target organs: None known.

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly

HMIS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

Section 3: Composition / Information on Ingredients

Bromothymol Blue, Sodium Salt, (34722-90-2), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Nonflammable solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skins, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Bromothymol Blue: OSHA PEL: N/A; ACGIH: TLV: N/A; STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	C ₂₇ H ₂₇ Br ₂ O ₅ Na.	Appearance	Greenish-violet powder.
Molecular weight	646.39.	Odor	No odor.
Specific Gravity	N/A.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble.
Melting Point	N/A.	Evaporation rate	N/A (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	pH indicator: 6.0 yellow to 7.6 blue.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizers.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Bromothymol Blue: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

Calcium CarbonateScholar
Chemistry

MSDS # 143.00

Section 1: Product and Company Identification**Calcium Carbonate****Synonyms/General Names:** Limestone; Precipitated Powder**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White powder, lumps or chips; no odor.*

This material is not considered hazardous.

Target organs: None known.

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

HMIS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

Section 3: Composition / Information on Ingredients

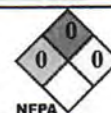
Calcium Carbonate, (471-34-1), >97%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Noncombustible solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage Green**Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Calcium Carbonate: OSHA PEL: 5 mg/m³ respirable, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	CaCO ₃	Appearance	White powder, lumps or chips.
Molecular weight	100.09.	Odor	No odor.
Specific Gravity	2.41 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Insoluble.
Melting Point	825°C decomposes.	Evaporation rate	N/A (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Carbon dioxide.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Calcium Carbonate: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial):

Not considered an environmental hazard.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (207-439-9).

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Calcium Chloride, AnhydrousScholar
Chemistry

MSDS # 146.00

Section 1: Product and Company Identification**Calcium Chloride, Anhydrous****Synonyms/General Names:** Calcium dichloride**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White granules, pellets or lumps, no odor***CAUTION!** Body tissue irritant and slightly toxic by ingestion.

Target organs: N/A

HMIS (0 to 4)

Health	1
Fire Hazard	0
Reactivity	0

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Calcium Chloride, Anhydrous (10043-52-4), 90-97%.

Sodium Chloride (7647-14-5), 1-2%.

Potassium Chloride (7447-40-7), 2-3%.

Strontium Chloride (10476-85-4), 0-1%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Non-flammable solid. When heated to decomposition, emits toxic fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge.

Exposure guidelines: Calcium Chloride: OSHA PEL: Not Available, ACGIH: TLV: Not Available, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	CaCl ₂	Appearance	White granules, pellets or lumps.
Molecular weight	110.99.	Odor	None.
Specific Gravity	2.5 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	11.3.	Solubility	Soluble in water and alcohol .
Melting Point	775°C .	Evaporation rate	N/A (<i>Butyl acetate = 1</i>).
Boiling Point/Range	1935°C.	Partition Coefficient	N/A (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	UEL	N/A.
Autoignition Temp.:	N/A.	LEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture. Contact with moisture generates heat.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Corrosive to brass and mild steel, sulfuric acid, aluminum and ferrous metals.

Shelf life: Fair shelf life, store in a cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Calcium Chloride: LD50 [oral, rat]; 1000 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not yet been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not Regulated.

Canada TDG: Not Regulated.

DOT Hazard Class: N/A.

Hazard Class: N/A.

Identification Number: N/A.

UN Number: N/A.

Section 15: Regulatory Information

EINECS: Listed (233-140-8) .

WHMIS Canada: D2B, Toxic material causing other toxic effects.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Material Safety Data Sheet



CALCIUM CHLORIDE, PELLETS

Revised: 07/13/2010
Replaces: 05/09/2010
Printed: 08/02/2010

Carolina Biological Supply Company

2700 York Rd | Burlington, NC 27215 • to order: 800.334.5551 • for support: 800.227.1150

CAROLINA
www.carolina.com

Section 1 - Product Description

Product Name: Calcium Chloride Pellet Anhydrous
Product Code(s): 85-1840, 85-1842
Size: 500 g, 5 lbs
Chemical Name: Calcium Chloride
CAS Number: 10043-52-4
Formula: CaCl₂
Synonyms: None
Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F) Chemtrec 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Hazard Identification

Emergency Overview: Use only in well-ventilated areas. Avoid contact with clothing. Irritating to eyes, respiratory system and skin. Keep container tightly closed. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of ... (Water, unless specified as a water reactive material). Avoid contact with skin and eyes. Do not breathe dust. Causes burns.

Potential Health Effects:

Eyes: May cause irritation.

Skin: May cause irritation to skin.

Ingestion: May cause gastrointestinal discomfort.

Inhalation: May cause irritation to respiratory tract.

Section 3 - Composition / Information on Ingredients

Principal Hazardous Components: Strontium Chloride (CAS# 10476-85-4) -1%; Sodium Chloride (CAS# 7647-14-5) 1-2%; Potassium Chloride (CAS# 7447-40-7) 2-3%; Calcium Chloride (CAS# 10043-52-4) 94-96%

TLV units: N/A

PEL units: N/A

Section 4 - First Aid Measures

Emergency and First Aid Procedures:

Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin - After contact with skin, wash immediately with plenty of ... (Water, unless specified as water-reactive).

Ingestion - If swallowed, if conscious, give plenty of water and induce vomiting immediately as directed by medical personnel. Immediately call a physician or poison control center. Never give anything by mouth to an unconscious person.
Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 5 - Firefighting Procedures

Flash Point (Method Used): N/A

NFPA Rating:

Health: 1

Fire: 0

Reactivity: 0

Extinguisher Media: Use media suitable to extinguish surrounding fire.

Flammable Limits in Air % by Volume: N/A

Autoignition Temperature: N/A

Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Fire or excessive heat may produce hazardous decomposition products.

Section 6 - Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Ventilate area of spill. Clean-up personnel should wear proper protective equipment. Avoid creating dust. Sweep or scoop up and containerize for disposal.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: Readily absorbs moisture from air. Keep container tightly closed in a cool, well-ventilated place.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Yes

Mechanical(General): Yes

Special: No

Other: No

Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.

Eye Protection: Splash proof chemical safety goggles should be worn.

Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: 110.99

Boiling Point: >1600 °C

Vapor Density(Air=1): N/A

Percent Volatile by Volume: 0% (21 °C)

Solubility in Water: Soluble

Melting Point: 772 °C

Vapor Pressure: N/A

Specific Gravity (H₂O=1): 1.34

Evaporation Rate (BuAc=1): N/A

Appearance and Odor: White, odorless crystals.

Section 10 - Reactivity Data

Stability: Stable

Conditions to Avoid: Moisture; Product is hygroscopic.

Incompatibility (Materials to Avoid): Water, Metals,
Hazardous Decomposition Products: HCl,
Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: skn-rat LD50 2630 mg/kg

orl-rat LD50 1000 mg/kg

Effects of Overexposure:

Acute: See Section 2

Chronic: N/A

Conditions Aggravated by Overexposure: N/A

Target Organs: Mucous Membranes, Eyes, Skin,

Primary Route(s) of Entry: Inhalation, ingestion, eye or skin contact.

Section 12 - Ecological Data

EPA Waste Numbers: N/A

Section 13 - Disposal Information

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Section 14 - Transport Information

DOT Proper Shipping Name: N/A

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute

Name List:

No

Chemical Category:

No

CERCLA Section 103 RQ(lb.): No

RCRA Section 261.33: No

Section 16 - Additional Information

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH American Conference of Governmental Industrial Hygienists

CAS Number Chemical Services Abstract Number

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

DOT U.S. Department of Transportation

IARC	International Agency of Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act

Calcium Hydroxide

MSDS # 150.00



Section 1: Product and Company Identification

Calcium Hydroxide

Synonyms/General Names: Slaked lime, Hydrated lime

Product Use: For educational use only

Manufacturer: Columbus Chemical Industries, Inc., Columbus, WI 53925.

24 Hour Emergency Information Telephone Numbers

CHEMTREC (USA): 800-424-9300

CANUTEC (Canada): 613-424-6666

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification

White crystalline powder, no odor

CAUTION! Body tissue irritant and irritating dust.

Target organs: N/A

HMIS (0 to 4)

Health	1
Fire Hazard	0
Reactivity	0

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Calcium Hydroxide (1305-62-0), <98%

Section 4: First Aid Measures

Always seek professional medical attention after first aid measures are provided.

Eyes: Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.

Skin: Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.

Ingestion: Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration.

Section 5: Fire Fighting Measures

Non-flammable solid. When heated to decomposition, emits toxic fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.



Section 6: Accidental Release Measures

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage

Green

Handling: Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.

Storage: Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.

Section 8: Exposure Controls / Personal Protection

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Calcium Hydroxide: OSHA PEL: 5 mg/m³ (total dust) 15 mg/m³ (respirable fraction), ACGIH: TLV: 5 mg/m³, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	Ca(OH) ₂	Appearance	White crystalline powder.
Molecular weight	74.10.	Odor	None.
Specific Gravity	2.24 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Sl. soluble in water, glycerin and acids.
Melting Point	580°C .	Evaporation rate	N/A (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	11, basic.
Flash Point:	N/A.	UEL	N/A.
Autoignition Temp.:	N/A.	LEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Acids

Shelf life: Poor shelf life, store in cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath.

Chronic Effects: No information found.

Sensitization: none expected

Calcium Hydroxide: LD50 [oral, rat]; 7340 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not yet been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not Regulated.

Canada TDG: Not Regulated.

DOT Hazard Class: N/A.

Hazard Class: N/A.

Identification Number: N/A.

UN Number: N/A.

Section 15: Regulatory Information

EINECS: Listed (215-137-3)

WHMIS Canada: E, Corrosive material, strong base.

TSCA: All components are listed or are exempt

California Proposition 65: Not listed

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

Calcium Nitrate, 4-Hydrate

MSDS # 153.00

Scholar
Chemistry**Section 1: Product and Company Identification****Calcium Nitrate, 4-Hydrate****Synonyms/General Names:** Nitric Acid; Calcium (II) Salt**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White crystals or flake; no odor.***WARNING!** Strong oxidizing agent and slightly toxic by ingestion.

Target organs: Blood

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

HMIS (0 to 4)

Health	1
Fire Hazard	0
Reactivity	2

Section 3: Composition / Information on Ingredients

Calcium Nitrate, (13477-34-4), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.

Induce vomiting immediately.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Strong Oxidizer. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Yellow****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Oxidizer Storage Area [Yellow Storage] with other oxidizers and away from any combustible materials. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Calcium Nitrate: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	Ca(NO ₃) ₂ •4H ₂ O.	Appearance	White crystals or flakes.
Molecular weight	236.15.	Odor	No odor.
Specific Gravity	1.86 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	8.17.	Solubility	121 g/100 g water.
Melting Point	45°C.	Evaporation rate	N/A. (Butyl acetate = 1).
Boiling Point/Range	N/A.	Partition Coefficient	N/A. (log P _{OW}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and ignition sources.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Ammonia, hydrazine and other reducing agents.

Shelf life: Fair shelf life, deliquescent, store in a cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Calcium Nitrate: LD50 [oral, rat]; 3900 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial):

Not considered an environmental hazard.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Calcium Nitrate.

Canada TDG: Calcium Nitrate.

DOT Hazard Class: 5.1, pg III.

Hazard Class: 5.1, pg III.

Identification Number: UN1454.

UN Number: UN1454.

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: Oxidizing material.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Calcium Sulfate, DihydrateScholar
Chemistry

MSDS # 159.00

Section 1: Product and Company Identification**Calcium Sulfate, Dihydrate****Synonyms/General Names:** Gypsum**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White powder, no odor*

This material is not considered hazardous.

Target organs: N/A

HMIS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

Section 3: Composition / Information on Ingredients

Calcium Sulfate, Dihydrate (10101-41-4), >90%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration**Section 5: Fire Fighting Measures**

Non-flammable solid. When heated to decomposition, emits toxic fumes of sulfur oxides and calcium oxides.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Calcium Sulfate: OSHA PEL: 5 mg/m³(total dust)15 mg/m³(respirable fraction), ACGIH: TLV: 10 mg/m³, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	CaSO ₄ ·2H ₂ O.	Appearance	White powder.
Molecular weight	172.17.	Odor	None.
Specific Gravity	2.32 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Slightly soluble in water .
Melting Point	1450°C .	Evaporation rate	N/A (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	UEL	N/A.
Autoignition Temp.:	N/A.	LEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Acids

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Calcium Sulfate: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not yet been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name:	Not Regulated.	Canada TDG:	Not Regulated.
DOT Hazard Class:	N/A.	Hazard Class:	N/A.
Identification Number:	N/A.	UN Number:	N/A.

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: Not WHMIS controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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MSDS # 160.00

Calcium Sulfate, HemihydrateScholar
Chemistry**Section 1: Product and Company Identification****Calcium Sulfate, Hemihydrate****Synonyms/General Names:** Plaster of Paris**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White powder; no odor.*

This material is not considered hazardous.

Target organs: None known.

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

HMIS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

Section 3: Composition / Information on Ingredients

Calcium Sulfate, Hemihydrate, (10034-76-1), >90%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Noncombustible solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage Green**Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an dust cartridge. Exposure guidelines: Calcium Sulfate, hemihydrate: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	CaSO ₄ · 1/2H ₂ O.	Appearance	White powder.
Molecular weight	145.15.	Odor	No odor.
Specific Gravity	2.32 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Slightly soluble.
Melting Point	N/A.	Evaporation rate	N/A (Butyl acetate = 1).
Boiling Point/Range	N/A.	Partition Coefficient	N/A (log P _{OW}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage. Hygroscopic

Incompatibility: Acids.

Shelf life: Poor shelf life, keep dry and store in a cool, dry environment

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Calcium Sulfate, hemihydrate: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Number: C4735 ***** Effective Date: 11/21/08 ***** Supercedes: 01/31/06

MSDS <i>Material Safety Data Sheet</i>	24 Hour Emergency Telephone: 609-413-2151 CHELSTAR: 1-800-424-8300
	Additional Response in Canada CANUTEC: 813-594-4156
From: Mallinckrodt Baker, Inc. 222 Red School Lane Phillipsburg, NJ 08865	Outside U.S. and Canada Chemtrec: 703-527-3687
Mallinckrodt CHEMICALS	J.T. Baker
NOTE: CHEMTREC, CANUTEC and the toll free number (800-424-8300) should be used only in the event of chemical emergencies involving a spill, leak, exposure or accident involving chemicals.	
All non-emergency questions should be directed to Customer Service (1-800-562-2637) for assistance.	

CITRIC ACID, Anhydrous

1. Product Identification

Synonyms: 2-Hydroxy-1,2,3-propanetricarboxylic acid
CAS No.: 77-92-9
Molecular Weight: 192.12
Chemical Formula: H3C6H5O7
Product Codes:
 J.T. Baker: 0122, 0127
 Mallinckrodt: 0621

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Citric Acid	77-92-9	99 - 100%	Yes

3. Hazards Identification

Emergency Overview

WARNING! CAUSES SEVERE EYE IRRITATION. CAUSES IRRITATION TO SKIN AND RESPIRATORY TRACT.

SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 1 - Slight
 Flammability Rating: 1 - Slight
 Reactivity Rating: 2 - Moderate
 Contact Rating: 3 - Severe
 Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES
 Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation:
 Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.

Ingestion:
 Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea. Extremely large oral dosages may produce gastrointestinal disturbances. Calcium deficiency in blood may result in severe cases of ingestion.

Skin Contact:
 Causes irritation to skin. Symptoms include redness, itching, and pain.

Eye Contact:
 Highly irritating; may also be abrasive.

Chronic Exposure:
 Chronic or heavy acute ingestion may cause tooth enamel erosion.

Aggravation of Pre-existing Conditions:
 No adverse health effects expected.

First Aid Measures

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact:

Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Fire:

Autoignition temperature: 1011C (1852F)

As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

Explosion:

Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Fire Extinguishing Media:

Water spray, dry chemical, alcohol foam, or carbon dioxide.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

None established.

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection:

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

White granules.

Odor:

Odorless.

Solubility:

ca. 60 g/100 ml @ 20C (Anhydrous)

Density:

1.665 @ 20C/4C

pH:

2.2 (0.1 N sol)

Volatiles by volume @ 21C (70F):

Boiling Point:

No information found.

Melting Point:

153C (307F)

Vapor Density (Air=1):

No information found.

Vapor Pressure (mm Hg):

No information found.

Evaporation Rate (BuAc=1):

No information found.

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Metal nitrates (potentially explosive reaction), alkali carbonates and bicarbonates, potassium tartrate. Will corrode copper, zinc, aluminum and their alloys.

Conditions to Avoid:

Heat, flames, ignition sources and incompatibles.

11. Toxicological Information

Oral rat LD50: 3 gm/kg; irritation skin rabbit: 500 mg/24H mild; eye rabbit: 750 ug/24H severe.

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Citric Acid (77-92-9)	No	No	None

12. Ecological Information

Environmental Fate:

No information found.

Environmental Toxicity:

No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----				
Ingredient	TSCA	EC	Japan	Australia
Citric Acid (77-92-9)	Yes	Yes	Yes	Yes

-----\Chemical Inventory Status - Part 2\-----				
Ingredient	Korea	--Canada--		Phil.
		DSL	NDSL	
Citric Acid (77-92-9)	Yes	Yes	No	Yes

Cobalt (II) ChlorideScholar
Chemistry

MSDS # 199.00

Section 1: Product and Company Identification**Cobalt (II) Chloride****Synonyms/General Names:** Cobaltous Chloride, Hexahydrate**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Red crystals; very slight odor.***CAUTION!** Moderately toxic by ingestion and possible carcinogen.
Target organs: Kidneys, lungs, thyroid.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

HMIS (0 to 4)

Health	2
Fire Hazard	0
Reactivity	0

Section 3: Composition / Information on Ingredients

Cobaltous Chloride, Hexahydrate, (7791-13-1), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Nonflammable solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Exposure guidelines: Cobalt Chloride: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	CoCl ₂ ·6H ₂ O.	Appearance	Red crystals..
Molecular weight	237.95.	Odor	Very slight odor.
Specific Gravity	1.924 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble.
Melting Point	N/A.	Evaporation rate	N/A (Butyl acetate = 1).
Boiling Point/Range	N/A.	Partition Coefficient	N/A (log P _{OW}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizing materials..

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Cobalt Chloride: LD50 [oral, rat]; 766 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has been found to be a Class 2B – a possible carcinogen by IARC.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Contains a heavy metal – Toxic to terrestrial and aquatic plants and animals. Do not release to the environment

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Not Listed.

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

ColchicineScholar
Chemistry

MSDS # 206.00

Section 1: Product and Company Identification**Colchicine****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA):** 800-424-9300**CANUTEC (Canada):** 613-424-6666

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Pale yellow or white powder; no odor.***HMIS (0 to 4)**

Health	4
Fire Hazard	1
Reactivity	0

DANGER! Highly toxic, poison by ingestion.

Target organs: Liver, kidneys, blood, cardiovascular and central nervous systems.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

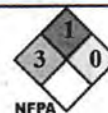
Colchicine, (64-86-8), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Combustible solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Blue****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Toxic Storage Area [Blue Storage] with other toxic material. Store in a dedicated poison cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Colchicine: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	C ₂₂ H ₂₅ NO ₆	Appearance	Pale yellow-white powder.
Molecular weight	399.43.	Odor	No odor.
Specific Gravity	N/A.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble .
Melting Point	142-150°C.	Evaporation rate	N/A (<i>Butyl acetate = 1</i>).
Boiling Point/Range	1560 °C.	Partition Coefficient	N/A (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and ignition sources.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizers.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Colchicine: LDLo[oral, man]; 86 µg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Use a licensed chemical waste disposal firm for proper disposal.

Section 14: Transport Information

DOT Shipping Name: Toxic Solid, Organic, n.o.s., (Colchicine). **Canada TDG:** Toxic Solid, Organic, n.o.s. (Colchicine).

DOT Hazard Class: 6.1, pg II. **Hazard Class:** 6.1, pg II.

Identification Number: UN2811. **UN Number:** UN2811.

Section 15: Regulatory Information

EINECS: Listed (200-598-5).

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt

California Proposition 65: Listed causing male developmental problems.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Congo Red Solution

Scholar
Chemistry

MSDS # 209.00

Section 1: Product and Company Identification**Congo Red Solution****Synonyms/General Names:** Congo Red, Water Solution**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Red-brown liquid; no odor.*

This material is not considered hazardous.

Target organs: None known.

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

HMIS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

Section 3: Composition / Information on Ingredients

Congo Red, (573-58-0), 0.5%.

Water, (7732-18-5), 99.5%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.

Induce vomiting immediately.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Noncombustible solution. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place in sealed bag or container for disposal. Ventilate and wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Exposure guidelines: Congo Red: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	C ₃₂ H ₂₂ N ₆ Na ₂ O ₆ S ₂	Appearance	Red-brown liquid.
Molecular weight	696.68.	Odor	No odor.
Specific Gravity	1.00 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Complete .
Melting Point	N/A.	Evaporation rate	N/A (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A (<i>log P_{OW}</i>)
Vapor Pressure (20°C)	N/A.	pH	pH indicator; 3.0 blue to 5.0 red.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use and storage.

Incompatibility: Oxidizers.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Congo Red: LD50 [oral, rat]; 15,200 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (209-358-4).

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations..

Section 16: Other Information

Current Issue Date: January 23, 2009

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CopperScholar
Chemistry

MSDS # 231.50

Section 1: Product and Company Identification**Copper****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA):** 800-424-9300**CANUTEC (Canada):** 613-424-6666

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Reddish brown metal shot, granules, sheet, foil, turnings, strips or screenings; no odor*

This material is not considered hazardous.

Target organs: Liver, kidneys

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

HMS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

Section 3: Composition / Information on Ingredients

Copper Metal (7440-50-8), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.

Induce vomiting immediately.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Nonflammable solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Copper : OSHA PEL: 1 mg/m³, ACGIH: TLV: Not Available, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	Cu.	Appearance	Reddish brown metal .
Molecular weight	63.55.	Odor	None.
Specific Gravity	8.92 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	N/A.
Melting Point	1083°C.	Evaporation rate	N/A. (Butyl acetate = 1).
Boiling Point/Range	2595°C.	Partition Coefficient	N/A. (log P_{ow}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizers, acids, bromates, chlorates, iodates, acetylene and halogens.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Copper : LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (231-159-6).

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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MSDS # 215.00

Copper (II) Chloride, DihydrateScholar
Chemistry**Section 1: Product and Company Identification****Copper (II) Chloride, Dihydrate****Synonyms/General Names:** Cupric Chloride Dihydrate**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Blue crystals, no odor. Hygroscopic.***WARNING!** Moderately toxic by ingestion and severe body tissue irritant.
Target organs: Respiratory system, liver, kidneys.**HMIS (0 to 4)**

Health	2
Fire Hazard	0
Reactivity	0

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Cupric Chloride Dihydrate (10125-13-0), >98%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. **Do not induce vomiting.** Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Non Flammable solid. When heated to decomposition, emits acrid fumes of hydrogen chloride and copper oxides.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Copper dusts and mists, as Cu: OSHA PEL: 1 mg/m³, ACGIH TLV: 1 mg/m³, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	CuCl ₂ •2H ₂ O.	Appearance	Blue crystals.
Molecular weight	170.48.	Odor	No odor.
Specific Gravity	2.51 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water and alcohol.
Melting Point	100°C.	Evaporation rate	N/A. (Butyl acetate = 1).
Boiling Point/Range	993°C.	Partition Coefficient	N/A. (log P _{OW}).
Vapor Pressure (20°C)	N/A.	pH	3.0, acidic.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

Section 10: Stability and Reactivity

Avoid heat and ignition sources. Material is deliquescent.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Potassium, sodium and ammonia. Corrosive to aluminum.

Shelf life: Poor shelf life, deliquescent. Store in a cool dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, damage to cornea, conjunctivitis, loss of vision. *Skin:* Redness, blistering, burning, itching, tissue destruction with slow healing. *Ingestion:* Nausea, vomiting, burning, diarrhea, ulceration, convulsions, shock. *Inhalation:* Coughing, wheezing, shortness of breath, headache, spasm, inflammation and edema of bronchi, pneumonitis.

Chronic Effects: Repeated/prolonged skin contact may cause thickening, blackening or cracking. Repeated eye exposure may cause corneal erosion or loss of vision. **Sensitization:** none expected

Copper (II) Chloride, Dihydrate: LD50 [oral, rat]; 584 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A
Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Contains a heavy metal – toxic to terrestrial and aquatic plants and animals. Do not release to environment.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Use a licensed chemical waste disposal firm for proper disposal.

Section 14: Transport Information

DOT Shipping Name:	Copper Chloride .	Canada TDG:	Copper Chloride .
DOT Hazard Class:	8, pg III, Marine Pollutant .	Hazard Class:	8, pg III.
Identification Number:	UN2802 .	UN Number:	UN2802.

Section 15: Regulatory Information

EINECS: Not Listed .

WHMIS Canada: D1B: Toxic material causing immediate/serious effects
E: Corrosive Material.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Copper (II) NitrateScholar
Chemistry

MSDS # 220.00

Section 1: Product and Company Identification**Copper (II) Nitrate****Synonyms/General Names:** Cupric Nitrate**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Blue crystals; slight odor.***WARNING!** Strong oxidizing agent and moderately toxic by ingestion
Target organs: Liver**HMIS (0 to 4)**

Health	2
Fire Hazard	0
Reactivity	2

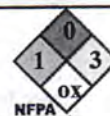
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Cupric Nitrate, Trihydrate (10031-43-3), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.
Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**Strong Oxidizer. When heated to decomposition, emits acrid fumes of NO_x and carbon oxides.**Protective equipment and precautions for firefighters:** Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage Yellow**Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Oxidizer Storage Area [Yellow Storage] with other oxidizers and away from any combustible materials. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Copper (II) Nitrate, Trihydrate: OSHA PEL: Not Available, ACGIH: TLV: 0.02 mg/m³ (Cu), STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	Cu(NO ₃) ₂ •3H ₂ O.	Appearance	Blue crystals.
Molecular weight	241.60.	Odor	Slight odor.
Specific Gravity	2.32 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	8.05.	Solubility	Soluble in water.
Melting Point	114°C.	Evaporation rate	N/A. (Butyl acetate = 1).
Boiling Point/Range	Decomposes at 170 °C.	Partition Coefficient	N/A. (log P _{ow})
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and ignition sources.
Stability: Stable under normal conditions of use and storage.
Incompatibility: Strong oxidizing agents
Shelf life: Poor shelf life, store in cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.
Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,
Chronic Effects: No information found.
Sensitization: none expected
Copper (II) Nitrate, Trihydrate: LD50 [oral, rat]; 940 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A
Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Marine pollutant. Contains a heavy metal – Toxic to terrestrial and aquatic plants and animals. Do not release to the environment

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Use a licensed chemical waste disposal firm for proper disposal.

Section 14: Transport Information

DOT Shipping Name:	Oxidizing Solid, Toxic. n.o.s., (Copper Nitrate).	Canada TDG:	Oxidizing Solid, Toxic. n.o.s., (Copper Nitrate).
DOT Hazard Class:	5.1, (6.1) pg II.	Hazard Class:	5.1 (6.1), pg I, II, III.
Identification Number:	UN3087.	UN Number:	UN3087.

Section 15: Regulatory Information

EINECS: Not listed. **WHMIS Canada:** C, D2B: Oxidizing material, Toxic material .
TSCA: All components are listed or are exempt. **California Proposition 65:** Not listed

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

Copper (II) Sulfate, 5-HydrateScholar
Chemistry

MSDS # 223.00

Section 1: Product and Company Identification**Copper (II) Sulfate, 5-Hydrate****Synonyms/General Names:** Cupric Sulfate pentahydrate**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Blue crystals; no odor.***CAUTION!** Moderately toxic by ingestion and body tissue irritant.
Target organs: Liver, kidneys, lungs, spleen**HMIS (0 to 4)**

Health	2
Fire Hazard	0
Reactivity	0

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

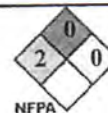
Cupric Sulfate (7758-99-8), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Nonflammable solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an dust cartridge. Exposure guidelines: Copper (II) Sulfate: OSHA PEL: Not Available, ACGIH: TLV: Not Available, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	CuSO ₄ •5H ₂ O.	Appearance	Blue crystals.
Molecular weight	249.68.	Odor	no odor.
Specific Gravity	2.286 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water and methanol.
Melting Point	110°C.	Evaporation rate	N/A (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	7.3 mm @ 25°C.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.
Stability: Stable under normal conditions of use and storage.
Incompatibility: Oxidizers, reducing agents.
Shelf life: Indefinite

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: **Eyes:** Redness, tearing, itching, burning, conjunctivitis. **Skin:** Redness, itching.
Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,
Chronic Effects: No information found.
Sensitization: none expected
Copper (II) Sulfate: LD50 [oral, rat]; 300 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A
Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Copper (II) Sulfate LD50; 0.80 mg/L (*Salmo Gairdneri*)
Marine pollutant. Contains a heavy metal – Toxic to terrestrial and aquatic plants and animals. Do not release to the environment

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name:	Environmental Hazardous Substance, . solid, n.o.s., (Copper Sulfate).	Canada TDG:	Environmental Hazardous Substance., solid, n.o.s., (Copper Sulfate).
DOT Hazard Class:	9, pg III, Marine pollutant.	Hazard Class:	9, pg III, Marine pollutant.
Identification Number:	UN3077.	UN Number:	UN3077.

Section 15: Regulatory Information

EINECS: Not listed. **WHMIS Canada:** D2B: Toxic material causing toxic effects, eye irritation.
TSCA: All components are listed or are exempt. **California Proposition 65:** Not listed.
The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Crystal VioletScholar
Chemistry

MSDS # 236.00

Section 1: Product and Company Identification**Crystal Violet****Synonyms/General Names:** Gentian Violet**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Green crystalline powder, musty odor.***HMIS (0 to 4)**

Health	2
Fire Hazard	1
Reactivity	0

CAUTION! Moderately toxic by ingestion.

Target organs: None known.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

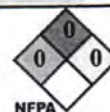
Crystal Violet (458-62-9), >96%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Non-flammable solid. When heated to decomposition, emits acrid fumes of carbon oxides and NOx.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage Green**Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Crystal Violet: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	C ₂₅ H ₃₀ ClN ₃	Appearance	Green crystalline powder.
Molecular weight	407.99.	Odor	Musty odor.
Specific Gravity	N/A.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water and alcohol.
Melting Point	215°C.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and ignition sources.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizers

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Crystal Violet: LD50 [oral, rat]; 420 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Use a licensed chemical waste disposal firm for proper disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Not Listed .

WHMIS Canada: Not WHMIS controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Dextrose, AnhydrousScholar
Chemistry

MSDS # 247.00

Section 1: Product and Company Identification**Dextrose, Anhydrous****Synonyms/General Names:** D-Glucose Anhydrous**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White crystalline powder; no odor.*

This material is not considered hazardous.

Target organs: None known.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

HMIS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

Section 3: Composition / Information on Ingredients

Dextrose, anhydrous (50-99-7), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Nonflammable solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skins, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Dextrose: OSHA PEL: Not Available, ACGIH: TLV: Not Available, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	C ₆ H ₁₂ O ₆ .	Appearance	White crystalline powder.
Molecular weight	180.16.	Odor	None.
Specific Gravity	N/A.	Odor Threshold	N/A.
Vapor Density (air=1)	6.3.	Solubility	Soluble in water .
Melting Point	N/A.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizers.

Shelf life: Fair shelf life, store in a cool, dry environment

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Dextrose: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Not considered an environmental hazard.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (200-075-1) .

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Fehling's Solution, A

MSDS # 280.00

Scholar
Chemistry**Section 1: Product and Company Identification****Fehling's Solution, A****Synonyms/General Names:** Fehling's Copper Solution**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Blue liquid, no odor.***HMIS (0 to 4)**

Health	1
Fire Hazard	0
Reactivity	0

CAUTION! Slightly toxic by ingestion and body tissue irritant.

Target organs: Liver, kidneys, lungs, spleen.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Cupric Sulfate, Pentahydrate (7758-99-8), 7%

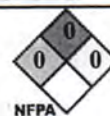
Water (7732-18-5), 93%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Noncombustible solution. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skins, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Exposure guidelines: Copper (II) Sulfate: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	CuSO ₄	Appearance	Blue liquid.
Molecular weight	159.60.	Odor	No odor.
Specific Gravity	1.047 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	0.7.	Solubility	Soluble in water .
Melting Point	0°C.	Evaporation rate	< 1 (Butyl acetate = 1).
Boiling Point/Range	100°C.	Partition Coefficient	N/A. (log P _{ow}).
Vapor Pressure (20°C)	14.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use and storage.

Incompatibility: N/A

Shelf life: Indefinite, store in a cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching. *Ingestion:* Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Copper (II) Sulfate: LD50 [oral, rat]; 300 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Copper Sulfate LD50; 0.80 mg/L (*Salmo Gairdneri*)

Marine pollutant. Contains a heavy metal – Toxic to terrestrial and aquatic plants and animals. Do not release to the environment

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

Fehling's Solution, B

Scholar
Chemistry

MSDS # 281.00

Section 1: Product and Company Identification**Fehling's Solution, B****Synonyms/General Names:** Fehling's Alkaline Tartrate Solution**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Clear, colorless liquid, no odor.***HMIS (0 to 4)**

Health	2
Fire Hazard	0
Reactivity	1

WARNING! corrosive to all body tissue and moderately toxic by ingestion.

Target organs: Eyes, skin, respiratory system.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Potassium Sodium Tartrate (6381-59-5), 20%.

Potassium Hydroxide (1310-58-3), 15%.

Water (7732-18-5), 65%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. **Do not induce vomiting.** Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Noncombustible solution. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**White****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skins, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Corrosive Area [White Storage] with other corrosive items. Store in a dedicated corrosive cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an acid/organic cartridge. Exposure guidelines Potassium Hydroxide: OSHA PEL: N/A and ACGIH TLV: N/A, STEL: 2 mg/m³ ceiling.

Section 9: Physical and Chemical Properties

Molecular formula	Mixture.	Appearance	Clear, colorless liquid.
Molecular weight	N/A.	Odor	No odor.
Specific Gravity	1.24 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Completely soluble in water.
Melting Point	N/A.	Evaporation rate	N/A (Butyl acetate = 1).
Boiling Point/Range	N/A.	Partition Coefficient	N/A (log P_{ow}).
Vapor Pressure (20°C)	N/A.	pH	12, basic.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use and storage.

Incompatibility: Acids, oxidizers.

Shelf life: Fair shelf life, store in a cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, damage to cornea, conjunctivitis, loss of vision. *Skin:* Redness, blistering, burning, itching, tissue destruction with slow healing. *Ingestion:* Nausea, vomiting, burning, diarrhea, ulceration, convulsions, shock. *Inhalation:* Coughing, wheezing, shortness of breath, headache, spasm, inflammation and edema of bronchi, pneumonitis.

Chronic Effects: Repeated/prolonged skin contact may cause thickening, blackening or cracking. Repeated eye exposure may cause corneal erosion or loss of vision.

Sensitization: none expected

Potassium Hydroxide: LD50 [oral, rat]; 273 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; 50mg/Severe
Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer disposal after being neutralized to pH 7.

Section 14: Transport Information

DOT Shipping Name:	Potassium Hydroxide Soln.	Canada TDG:	Potassium Hydroxide Solution.
DOT Hazard Class:	8, pg II.	Hazard Class:	8, pg II, III.
Identification Number:	UN1814.	UN Number:	UN1814.

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: CLASS E: Corrosive liquid.

TSCA: All components are listed or are exempt. **California Proposition 65:** Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Glycerin

Scholar
Chemistry

MSDS # 314.00

Section 1: Product and Company Identification**Glycerin****Synonyms/General Names:** Glycerol**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Clear liquid, no odor.*Some individuals may be allergic to this substance. Combustible liquid.
Target organs: None known.**HMIS (0 to 4)**

Health	0
Fire Hazard	1
Reactivity	0

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Glycerin (56-81-5), >99.5%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Combustible liquid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place in sealed bag or container for disposal. Ventilate and wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Exposure guidelines: Glycerin: OSHA PEL: Not Available, ACGIH: TLV: Not Available, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	HOCH ₂ CH(OH)CH ₂ OH.	Appearance	Clear liquid.
Molecular weight	92.10.	Odor	No odor.
Specific Gravity	1.26 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water and alcohol.
Melting Point	18°C.	Evaporation rate	>1 (<i>Butyl acetate = 1</i>).
Boiling Point/Range	290°C.	Partition Coefficient	N/A. (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	0.0025 mm/Hg @ 50°C.	pH	N/A.
Flash Point:	177°C (350.6°F).	LEL	0.9%.
Autoignition Temp.:	393°C (739°F).	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizers.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath.

Chronic Effects: No information found.

Sensitization: some individuals may develop allergies to this material.

Glycerin: LD50 [oral, rat]; 12,600 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; 500 mg/24 hr/mild

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (200-289-5).

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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MSDS # 337.00

5.0%
1%

Hydrochloric Acid Solution, 1%
**Scholar
Chemistry**
Section 1: Product and Company Identification
Hydrochloric Acid Solution, 1%
Synonyms/General Names: Muriatic Acid; Hydrochloric Acid Solution, 0.1M, 0.5M, 0.5%

Product Use: For educational use only

Manufacturer: Columbus Chemical Industries, Inc., Columbus, WI 53925.

24 Hour Emergency Information Telephone Numbers
CHEMTREC (USA): 800-424-9300
CANUTEC (Canada): 613-424-6666

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification
Clear colorless liquid; pungent odor.
HMIS (0 to 4)

Health	1
Fire Hazard	0
Reactivity	0

WARNING! Corrosive to body tissue and slightly toxic by ingestion.

Target organs: Respiratory system, eyes, skin, lungs.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Hydrochloric Acid, 37% (7647-01-0), 1-2%.

Water (7732-18-5), 98-99%.

Section 4: First Aid Measures
Always seek professional medical attention after first aid measures are provided.
Eyes: Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.

Skin: Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.

Ingestion: Call Poison Control immediately. *Do not induce vomiting.* Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration.

Section 5: Fire Fighting Measures

Noncombustible solution. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.


Section 6: Accidental Release Measures

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage
Handling: Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.

Storage: Store in Corrosive Area [White Storage] with other corrosive items. Store in a dedicated corrosive cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.

Section 8: Exposure Controls / Personal Protection

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an acid/organic cartridge. Exposure guidelines Hydrochloric Acid: OSHA PEL: 5 ppm ceiling and ACGIH TLV: 2 ppm ceiling, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	HCl.	Appearance	Clear, colorless liquid.
Molecular weight	36.46.	Odor	Pungent odor.
Specific Gravity	1.01 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	0.7.	Solubility	Completely soluble in water.
Melting Point	0°C.	Evaporation rate	< 1 (Butyl acetate = 1).
Boiling Point/Range	100°C.	Partition Coefficient	N/A. (log P _{ow}).
Vapor Pressure (20°C)	14.	pH	2, acid, (corrosive).
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

Section 10: Stability and Reactivity

Avoid heat and ignition sources.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Alkalis, strong bases, metals, amines, carbonates, metal oxides, cyanides, sulfides, sulfites and formaldehyde.

Shelf life: Indefinite, store in a cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, damage to cornea, conjunctivitis, loss of vision. *Skin:* Redness, blistering, burning, itching, tissue destruction with slow healing. *Ingestion:* Nausea, vomiting, burning, diarrhea, ulceration, convulsions, shock. *Inhalation:* Coughing, wheezing, shortness of breath, headache, spasm, inflammation and edema of bronchi, pneumonitis.

Chronic Effects: Repeated/prolonged skin contact may cause thickening, blackening or cracking. Repeated eye exposure may cause corneal erosion or loss of vision.

Sensitization: none expected

Hydrochloric Acid: LD50 [oral, rabbit]; 900 mg/kg; LC50 [rat]; 3124 ppm (1 hour); LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): LC50 - 282 mg/l - 96 h - Gambusia affinis (Mosquito fish)

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer disposal after being neutralized to pH 7.

Section 14: Transport Information

DOT Shipping Name:	Hydrochloric Acid.	Canada TDG:	Hydrochloric Acid.
DOT Hazard Class:	8, pg II.	Hazard Class:	8, pg II.
Identification Number:	UN1789.	UN Number:	UN1789.

Section 15: Regulatory Information

EINECS: Listed (231-595-7).

WHMIS Canada: CLASS E: Corrosive liquid.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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1/23/2009

MSDS # 345.00

Hydrogen Peroxide, 3%Scholar
Chemistry**Section 1: Product and Company Identification****Hydrogen Peroxide, 3%**

Synonyms/General Names: N/A

Product Use: For educational use only

Manufacturer: Columbus Chemical Industries, Inc., Columbus, WI 53925.

24 Hour Emergency Information Telephone Numbers

CHEMTREC (USA): 800-424-9300

CANUTEC (Canada): 613-424-6666

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification

Clear, colorless liquid, slight odor

HMIS (0 to 4)

Health	1
Fire Hazard	0
Reactivity	1

WARNING! Oxidizing agent and body tissue irritant.

Target organs: None known.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Hydrogen Peroxide, 35% (7722-84-1), 3%.

Water (7732-18-5), 97%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. *Do not induce vomiting.* Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Noncombustible solution. When heated to decomposition, produces oxygen gas.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an acid/organic cartridge. Exposure guidelines Hydrogen Peroxide: OSHA PEL: 1.4 mg/m³; ACGIH TLV: 1.4 mg/m³; STEL:N/A.

Section 9: Physical and Chemical Properties

Molecular formula	H ₂ O ₂	Appearance	Clear, colorless liquid.
Molecular weight	34.01.	Odor	Slight odor.
Specific Gravity	1.01 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	0.7.	Solubility	Completely soluble in water.
Melting Point	0°C.	Evaporation rate	< 1 (Butyl acetate = 1).
Boiling Point/Range	100°C.	Partition Coefficient	N/A. (log P _{ow}).
Vapor Pressure (20°C)	14.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

Section 10: Stability and Reactivity

Avoid heat and ignition sources.

Stability: Instable, many materials will catalyze the decomposition of hydrogen peroxide to produce oxygen, water, and heat.

Incompatibility: Reducing agents, alkalis, organic materials, metals, acids, bases, metal salts, dust and dirt contaminants and flammable substances.

Shelf life: Fair shelf life, store in a cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath.

Chronic Effects: Repeated/prolonged skin contact may cause thickening, blackening or cracking. Repeated eye exposure may cause corneal erosion or loss of vision.

Sensitization: none expected

Hydrogen Peroxide: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Toxic to beneficial microorganisms (e.g. soil and sewage treatment microorganisms). Do not release to environment.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG .

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (231-765-0) .

WHMIS Canada: Not WHMIS controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

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Iodine

Scholar
Chemistry

MSDS # 357.00

Section 1: Product and Company Identification**Iodine****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Bluish crystals; characteristic odor.***HMIS (0 to 4)**

Health	3
Fire Hazard	0
Reactivity	1

WARNING! Corrosive to body tissue and inhalation hazard.

Target organs: Thyroid

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Iodine (7553-56-2), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. **Do not induce vomiting.** Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

When heated to decomposition, emits acrid fumes of iodine.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**White****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skins, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Corrosive Area [White Storage] with other corrosive items. Store in a dedicated corrosive cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an acid/organic cartridge. Exposure guidelines Iodine: OSHA PEL: 1 mg/m³ ceiling and ACGIH TLV: N/A; STEL: 1 mg/m³ ceiling.

Section 9: Physical and Chemical Properties

Molecular formula	I ₂	Appearance	Bluish crystals.
Molecular weight	253.80.	Odor	Characteristic odor.
Specific Gravity	4.93 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	8.8.	Solubility	Soluble in common organic solvents.
Melting Point	113°C.	Evaporation rate	N/A. (Butyl acetate = 1).
Boiling Point/Range	184.3°C.	Partition Coefficient	N/A. (log P _{OW}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

Section 10: Stability and Reactivity

Avoid heat and ignition sources.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Metals or unsaturated organic compounds, ammonia solutions or alkaline solutions of ammonia salts.

Shelf life: Fair shelf life, store in a cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: **Eyes:** Redness, tearing, itching, burning, damage to cornea, conjunctivitis, loss of vision. **Skin:** Redness, blistering, burning, itching, tissue destruction with slow healing. **Ingestion:** Nausea, vomiting, burning, diarrhea, ulceration, convulsions, shock. **Inhalation:** Coughing, wheezing, shortness of breath, headache, spasm, inflammation and edema of bronchi, pneumonitis.

Chronic Effects: Repeated/prolonged skin contact may cause thickening, blackening or cracking. Repeated eye exposure may cause corneal erosion or loss of vision.

Sensitization: none expected

Iodine: LD50 [oral, rat]; 14 g/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport information

DOT Shipping Name:	Corrosive solids, n.o.s., (Iodine).	Canada TDG:	Corrosive solids, n.o.s., (Iodine).
DOT Hazard Class:	8, pg III .	Hazard Class:	8, pg III, Marine pollutant .
Identification Number:	UN1759.	UN Number:	UN1759 .

Section 15: Regulatory Information

EINECS: Listed (231-442-4).

WHMIS Canada: D2A, E: Very toxic material, Corrosive material.

TSCA: All components are listed or are exempt. **California Proposition 65:** Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

MSDS # 361.00

Iodine Tincture*Granis Iodine***Scholar
Chemistry****Section 1: Product and Company Identification****Iodine Tincture****Synonyms/General Names:** Iodine-potassium iodide alcoholic solution**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Amber liquid, alcohol odor.***HMIS (0 to 4)**

Health	2
Fire Hazard	3
Reactivity	0

WARNING! Alcohol based solution, flammable liquid and moderately toxic by ingestion.

Flammable liquid, keep away from all ignition sources.

Target organs: Eyes, Liver, Kidneys, Central Nervous System.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Ethyl Alcohol, 95% (64-17-5), 42%.

Sodium Iodide (7681-82-5), 2%.

Iodine, Resublimed (7553-56-2), 2%.

Water (7732-18-5), 53%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. **Aspiration hazard.** Rinse mouth with cold water. Give victim 1-2 tbsp of activated charcoal mixed with 8 oz water.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Class IB Flammable Liquid. When heated to decomposition, emits acrid fumes

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact. Material is sensitive to static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Red****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Flammable Area [Red Storage] with other flammable materials and away from any strong oxidizers. Store in a dedicated flammables cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an acid/organic cartridge. Exposure guidelines: Ethyl Alcohol: OSHA PEL: 1900 mg/m³, ACGIH TLV: 1000 ppm, STEL: N/A, Sodium Iodide: OSHA PEL: N/A; ACGIH TLV: N/A; STEL; N/A. Iodine: OSHA PEL: 1 mg/m³ ceiling; ACGIH TLV: N/A; STEL; 1 mg/m³ ceiling.

Section 9: Physical and Chemical Properties

Molecular formula	Mixture.	Appearance	Amber liquid.
Molecular weight	N/A.	Odor	Alcohol odor.
Specific Gravity	0.964 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Completely soluble in water.
Melting Point	N/A.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N?A.	Partition Coefficient	N/A. (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	50 mm Hg.	pH	N/A.
Flash Point:	24°C (75°F) CC (ethanol).	LEL	3.3%.
Autoignition Temp.:	363°C (685°F) (ethanol).	UEL	19 %.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use. Avoid heat and ignition sources.

Incompatibility: May react or be incompatible with oxidizing materials.

Shelf life: Fair shelf life, store in a cool, dry environment. Light sensitive, keep away from direct sunlight.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Stinging pain, watering of eyes, inflammation of eyelids and conjunctivitis. *Skin:* Insensitivity to pain, feel of coolness or cold, skin looks white and feels hard and cold. *Ingestion:* Breath has sweet, organic odor, mental confusion, drowsiness, nausea, vomiting and headache. *Inhalation:* Rapid irregular breathing, headache, fatigue, mental confusion, nausea and vomiting, giddiness and poor judgment, convulsions and death.

Chronic Effects: Repeated/prolonged skin contact may cause dryness or rashes.

Sensitization: none expected

Ethyl Alcohol: LD50 [oral, rat]; 7060 mg/kg; LC50 [rat]; 20,000 mg/l (10 hours); LD50 Dermal [rabbit]; 20 mg/24H MOD

Sodium Iodide: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Iodine: LD50 [oral, rat]; 14 g/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Flammable liquids, n.o.s. (Ethanol and Iodine). **Canada TDG:** Flammable liquids, n.o.s. (Ethanol and Iodine).

DOT Hazard Class: 3, pg II. **Hazard Class:** 3, pg II.

Identification Number: UN1993. **UN Number:** UN1993.

Section 15: Regulatory Information

EINECS: Not Listed.

WHMIS Canada: Not WHMIS controlled.

TSCA: All components are listed or are exempt. **California Proposition 65:** Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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MSDS # 368.00

Iron (II) Sulfate, 7-HydrateScholar
Chemistry**Section 1: Product and Company Identification****Iron (II) Sulfate, 7-Hydrate****Synonyms/General Names:** Ferrous Sulfate**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Greenish-blue crystalline powder; no odor. Hygroscopic.***HMIS (0 to 4)**

Health	1
Fire Hazard	0
Reactivity	0

CAUTION! Slightly toxic by ingestion and body tissue irritant.
Target organs: Liver, kidneys.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Ferrous Sulfate (7782-63-0), 100%.

Sulfuric Acid (7664-93-9), 1%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.
Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Nonflammable solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an dust cartridge. Exposure guidelines: Iron (II) Sulfate: OSHA PEL: Not Available, ACGIH: TLV: Not Available, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	FeSO ₄ •7H ₂ O.	Appearance	Greenish-blue crystalline powder.
Molecular weight	278.02.	Odor	None.
Specific Gravity	1.89 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	9.6.	Solubility	Soluble in water .
Melting Point	64°C.	Evaporation rate	N/A. (Butyl acetate = 1).
Boiling Point/Range	N/A.	Partition Coefficient	N/A. (log P _{ow}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Alkalies, light, nitric acid, strong oxidizers.

Shelf life: Fair shelf life, hygroscopic, store in a cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Iron (II) Sulfate: LD50 [oral, rat]; 1500 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Not considered an environmental hazard.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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MSDS # 378.00

Iron (III) Oxide RedScholar
Chemistry**Section 1: Product and Company Identification****Iron (III) Oxide Red****Synonyms/General Names:** Ferric Oxide, Red; Rust**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Red/brown powder; no odor.***HMIS (0 to 4)**

Health	0
Fire Hazard	0
Reactivity	0

CAUTION! Body tissue irritant.

Target organs: None known.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Iron (III) Oxide (1309-37-1), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Noncombustible solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Iron Oxide: OSHA PEL: 10 mg/m³, ACGIH: TLV: Not Available, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	Fe ₂ O ₃	Appearance	Red-brown powder.
Molecular weight	159.68.	Odor	No odor.
Specific Gravity	5.24 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in acids.
Melting Point	1565°C.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Calcium monoxide, hydrazine, calcium hypochloride, performic acid, bromine pentafluoride.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching. *Ingestion:* Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath.

Chronic Effects: No information found.

Sensitization: none expected

Iron (III) Oxide: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (215-168-2).

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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MSDS # 381.10

Iron PowderScholar
Chemistry**Section 1: Product and Company Identification****Iron Powder****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Grey-black granular powder; no odor.***HMS (0 to 4)**

Health	1
Fire Hazard	3
Reactivity	0

CAUTION! Combustible solid, flammable solid if finely divided.

Target organs: None known.

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

Section 3: Composition / Information on Ingredients

Iron (7439-89-6), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Flammable solid. When heated to decomposition, emits acrid fumes

Protective equipment and precautions for firefighters: Do Not Use carbon dioxide, foam, water or halogenated extinguishing agents. Use class D extinguisher or smother with dry sand, dry clay, dry ground limestone or dry graphite. Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA).

Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Iron: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	Fe.	Appearance	Grey-black granular powder.
Molecular weight	55.85.	Odor	No odor.
Specific Gravity	7.86 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in sulfuric or muriatic acid.
Melting Point	1535°C.	Evaporation rate	N/A. (Butyl acetate = 1).
Boiling Point/Range	3000°C.	Partition Coefficient	N/A. (log P _{ow}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizers, mineral acids

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Iron: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (231-096-4).

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Lead

Scholar
Chemistry

MSDS # 396.00

Section 1: Product and Company Identification

Lead

Synonyms/General Names: N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA):** 800-424-9300**CANUTEC (Canada):** 613-424-6666

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Bluish, silvery-gray soft metal, granular, shot, sheet, foil; no odor.***HMIS (0 to 4)**

Health	2
Fire Hazard	0
Reactivity	0

WARNING! Moderately toxic by ingestion, absorbed through skin, possible carcinogen

Target organs: Nervous system, blood, kidneys

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Lead (7439-92-1), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage

Green

Handling: Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an dust cartridge. Exposure guidelines: Lead: OSHA PEL: 0.05 mg/m³, ACGIH: TLV: 0.05 mg/m³, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	Pb.	Appearance	Bluish/silvery-grey material.
Molecular weight	207.19.	Odor	None.
Specific Gravity	11.3 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in Dilute Nitric Acid.
Melting Point	327.4°C.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	1740°C.	Partition Coefficient	N/A. (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use and storage.

Incompatibility: Oxidizing materials.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: Possible carcinogen. Evidence now suggests that blood levels of lead below 10 µg/dL can have the effect of diminishing the IQ scores of children. Low levels of lead impair neurotransmission and immune system function and may increase systolic blood pressure. Severe toxicity can cause sterility, abortion, and neonatal mortality and morbidity. An experimental teratogen. Experimental reproductive effects.

Sensitization: none expected

Lead: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has been found to be a carcinogen and produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Marine pollutant. Contains a heavy metal – Toxic to terrestrial and aquatic plants and animals. Do not release to the environment

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Use licensed chemical waste disposal firm for proper disposal.

Section 14: Transport Information

DOT Shipping Name:	Environmental Hazardous Substance, solid, n.o.s., (Lead).	Canada TDG:	Environmental Hazardous Substance, solid, n.o.s. (Lead).
DOT Hazard Class:	9, pg III.	Hazard Class:	9, pg III, Marine pollutant.
Identification Number:	UN3077.	UN Number:	UN3077.

Section 15: Regulatory Information

EINECS: Listed (231-100-4).

WHMIS Canada: CLASS D2A: Very toxic material.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

MSDS # 403.00

Lead (II) NitrateScholar
Chemistry**Section 1: Product and Company Identification****Lead (II) Nitrate****Synonyms/General Names:** Lead (II) Nitrate**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White crystals, no odor.***WARNING!** Strong oxidizing agent, body tissue irritant and possible carcinogen.
Target organs: Blood, heart, kidneys, endocrine, immune and central nervous systems.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

HMIS (0 to 4)

Health	2
Fire Hazard	0
Reactivity	2

Section 3: Composition / Information on Ingredients

Lead (II) Nitrate (10099-74-8), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.*

- Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.
- Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.
- Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.
- Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.

Section 5: Fire Fighting MeasuresStrong Oxidizer. When heated to decomposition, emits acrid fumes of lead oxides and NO_x.**Protective equipment and precautions for firefighters:** Use foam or dry chemical to extinguish fire. Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Yellow****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Oxidizer Storage Area [Yellow Storage] with other oxidizers and away from any combustible materials. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Lead Nitrate: OSHA PEL: 0.05 mg/m³, ACGIH: TLV: 0.05 mg/m³, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	Pb(NO ₃) ₂ .	Appearance	White crystals.
Molecular weight	331.20.	Odor	No odor.
Specific Gravity	4.53 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water and alcohol.
Melting Point	470°C.	Evaporation rate	N/A. (Butyl acetate = 1).
Boiling Point/Range	N/A.	Partition Coefficient	N/A. (log P _{OW}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and ignition sources.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Reducing agents, organic materials.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Lead Nitrate: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has been found to be a carcinogen and produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Contains a heavy metal toxic to beneficial microorganisms (e.g. soil and sewage treatment microorganisms). Do not release to environment.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Use a licensed chemical waste disposal firm for proper disposal.

Section 14: Transport Information

DOT Shipping Name:	Lead Nitrate.	Canada TDG:	Lead Nitrate.
DOT Hazard Class:	5.1(6.1), pg II, Marine Pollutant .	Hazard Class:	5.1(6.1), pg II, Marine Pollutant.
Identification Number:	UN1469.	UN Number:	UN1469.

Section 15: Regulatory Information

EINECS: Listed (233-245-9).

WHMIS Canada: Not WHMIS controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Section 5 - Firefighting Procedures

Flash Point (Method Used): Non-flammable

NFPA Rating:

Health: 2

Fire: 1

Reactivity: 0

Extinguisher Media: Use dry chemical, CO2 or appropriate foam.

Flammable Limits in Air % by Volume: N/A

Autoignition Temperature: N/A

Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Avoid Dusting. May become explosive when dispersed in air.

Section 6 - Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Ventilate area of spill. Clean-up personnel should wear proper protective equipment. Avoid creating dust. Sweep or scoop up and containerize for disposal.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: Keep away from ... (incompatible materials to be indicated by the manufacturer).

Keep away from sources of ignition - No smoking.

Keep away from oxidizing materials and strong acids.

Keep container tightly closed in a cool, well-ventilated place.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Yes

Mechanical(General): No

Special: No

Other: No

Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.

Eye Protection: Splash proof chemical safety goggles should be worn.

Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: N/A

Boiling Point: Decomposes

Vapor Density(Air=1): N/A

Percent Volatile by Volume: N/A

Solubility in Water: Practically Insoluble

Melting Point: Decomposes on heating

Vapor Pressure: Negligible as solid

Specific Gravity (H2O=1): N/A

Evaporation Rate (BuAc=1): N/A

Appearance and Odor: Fine, light yellow powder with no odor.

Section 10 - Reactivity Data

Stability: Stable

Conditions to Avoid: Heat and sources of ignition.

Incompatibility (Materials to Avoid): Alkalis, Acids, Oxidizers,

Hazardous Decomposition Products: N/A
Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: N/A
Effects of Overexposure:
Acute: See Section 2
Chronic: Not listed as a carcinogen by IARC, NTP or OSHA.
Conditions Aggravated by Overexposure: N/A
Target Organs: N/A
Primary Route(s) of Entry: Inhalation and skin contact.

Section 12 - Ecological Data

EPA Waste Numbers: N/A

Section 13 - Disposal Information

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Section 14 - Transport Information

DOT Proper Shipping Name: ***30 g bottle is a small quantity exception.***
UN1325, Description: Flammable solid, organic, n.o.s.(lycopodium), 4.1, III

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory
Hazard Category for SARA Section 311/312 Reporting: Acute

Name List:
No

Chemical Category:
No

CERCLA Section 103 RQ(lb.): No
RCRA Section 261.33: No

Section 16 - Additional Information

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary
ACGIH American Conference of Governmental Industrial Hygienists
CAS Number Chemical Services Abstract Number
CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
DOT U.S. Department of Transportation
IARC International Agency of Research on Cancer

N/A Not Available
NTP National Toxicology Program
OSHA Occupational Safety and Health Administration
PEL Permissible Exposure Limit
ppm Parts per million
RCRA Resource Conservation and Recovery Act
SARA Superfund Amendments and Reauthorization Act
TLV Threshold Limit Value
TSCA Toxic Substances Control Act

MSDS # 433.00

Magnesium Sulfate 7-HydrateScholar
Chemistry**Section 1: Product and Company Identification****Magnesium Sulfate, 7-Hydrate****Synonyms/General Names:** Epsom salts**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Crystalline powder, no odor.***HMIS (0 to 4)**

Health	1
Fire Hazard	0
Reactivity	0

CAUTION! Body tissue irritant.

Target organs: None known.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

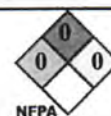
Magnesium Sulfate, Heptahydrate (10034-99-8), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Nonflammable solid. When heated to decomposition, emits acrid fumes of sulfur oxides.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Magnesium Sulfate: OSHA PEL: Not Available, ACGIH: TLV: Not Available, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	MgSO ₄ ·7H ₂ O.	Appearance	Crystalline powder.
Molecular weight	246.48.	Odor	None.
Specific Gravity	1.67 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water and glycerin .
Melting Point	N/A.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	200°C.	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage. Hygroscopic

Incompatibility: None known.

Shelf life: Poor shelf life, hygroscopic, store in a cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Magnesium Sulfate: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not Regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Not Listed.

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Manganese (II) Sulfate, MonohydrateScholar
Chemistry

MSDS # 444.00

Section 1: Product and Company Identification**Manganese (II) Sulfate, monohydrate****Synonyms/General Names:** Manganous sulfate.**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Pale red powder, no odor.***HMIS (0 to 4)**

Health	1
Fire Hazard	0
Reactivity	0

CAUTION! Body tissue irritant.

Target organs: Central nervous system, liver, kidneys.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Manganous sulfate (10034-96-5), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Manganese compounds as Mn: OSHA PEL: 5 mg/m³ ceiling, ACGIH: TLV: 0.2 mg/m³, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	MnSO ₄ ·H ₂ O.	Appearance	Pale red powder.
Molecular weight	169.02.	Odor	No odor.
Specific Gravity	2.95 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water.
Melting Point	57-117°C.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A. (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong reducing agents,

Shelf life: Poor shelf life, hygroscopic, store in a cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: **Eyes:** Redness, tearing, itching, burning, conjunctivitis. **Skin:** Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Manganese (II) Sulfate: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Contains a heavy metal – Toxic to terrestrial and aquatic plants and animals. Do not release to the environment

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not controlled by DOT.

Canada TDG: Not controlled by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Manganese (IV) Dioxide

MSDS # 440.00

Scholar
Chemistry**Section 1: Product and Company Identification****Manganese (IV) Dioxide****Synonyms/General Names:** Manganese dioxide, Manganese peroxide**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Silvery metallic appearance crystalline powder.***HMIS (0 to 4)**

Health	1
Fire Hazard	0
Reactivity	1

WARNING! Strong oxidizing agent and body tissue irritant.

Target organs: Respiratory system, central nervous system.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Manganese Dioxide (1313-13-9), 89-92%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Strong Oxidizer. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Yellow****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Oxidizer Storage Area [Yellow Storage] with other oxidizers and away from any combustible materials. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Manganese compounds as Mn: OSHA PEL: 5 mg/m³ ceiling, ACGIH: TLV: 0.2 mg/m³, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	MnO ₂	Appearance	Silvery metallic, crystalline powder.
Molecular weight	86.94.	Odor	No odor.
Specific Gravity	5.02 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in hydrochloric acid .
Melting Point	535°C.	Evaporation rate	N/A. (Butyl acetate = 1).
Boiling Point/Range	Decomposes.	Partition Coefficient	N/A. (log P _{ow}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and ignition sources.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Reducing materials, organic materials, and oxidizable materials.

Shelf life: Fair shelf life, store in cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Manganese (II) Sulfate: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Contains a heavy metal – Toxic to terrestrial and aquatic plants and animals. Do not release to the environment

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Use a licensed chemical waste disposal firm for proper disposal.

Section 14: Transport Information

DOT Shipping Name: Not controlled by DOT.

Canada TDG: Not controlled by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (215-202-6).

WHMIS Canada: C: Oxidizing, D2B: Toxic causing other toxic effects.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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MSDS # 452.00

MercuryScholar
Chemistry**Section 1: Product and Company Identification****Mercury****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Silver metallic liquid, no odor.***HMS (0 to 4)**

Health	3
Fire Hazard	0
Reactivity	0

DANGER! Highly toxic, poison by ingestion and inhalation.

Target organs: Central nervous system, liver, kidneys.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Mercury (7439-97-6), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Non-flammable liquid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage **Blue****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Toxic Storage Area [Blue Storage] with other toxic material. Store in a dedicated poison cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Mercury: OSHA PEL: 0.1 mg/m³ ceiling, ACGIH: TLV: 0.025 mg/m³, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	Hg.	Appearance	Silver metallic liquid.
Molecular weight	200.59.	Odor	No odor.
Specific Gravity	13.54 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	7.0.	Solubility	Soluble Nitric, boiling Sulfuric.
Melting Point	-30°C.	Evaporation rate	>1 (<i>Butyl acetate = 1</i>).
Boiling Point/Range	357 °C.	Partition Coefficient	N/A. (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	0.002.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and ignition sources.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Ammonia, boron, oxygen, oxidants, nitric acid.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath.

Chronic Effects: No information found.

Sensitization: none expected

Mercury: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has been found to be a carcinogen and produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Contains a heavy metal – toxic to terrestrial and aquatic plants and animals. Do not release to environment.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Use a licensed chemical waste disposal firm for proper disposal.

Section 14: Transport Information

DOT Shipping Name:	Mercury.	Canada TDG:	Mercury.
DOT Hazard Class:	8, pg III.	Hazard Class:	8, pg III.
Identification Number:	UN2809.	UN Number:	UN2809.

Section 15: Regulatory Information

EINECS: Listed (231-106-7).

WHMIS Canada: D1A, D2A, E: Toxic material, Corrosive.

TSCA: All components are listed or are exempt.

California Proposition 65: Listed – Developmental hazard.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Mercury (II) Chloride

MSDS # 449.00

Scholar
Chemistry**Section 1: Product and Company Identification****Mercury (II) Chloride****Synonyms/General Names:** Mercuric chloride**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White crystals, no odor.***DANGER!** Highly toxic [Severe Poison] by ingestion and severe body tissue irritant.

Target organs: Kidneys, central nervous system.

HMIS (0 to 4)

Health	4
Fire Hazard	0
Reactivity	1

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Mercuric chloride (7487-94-7), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Non-flammable solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage **Blue****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Toxic Storage Area [Blue Storage] with other toxic material. Store in a dedicated poison cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Mercury compounds: OSHA PEL: 0.01 mg/m³ ceiling, ACGIH: TLV: 0.1 mg/m³, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	HgCl ₂	Appearance	White crystals.
Molecular weight	271.5.	Odor	No odor.
Specific Gravity	5.44 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	8.7.	Solubility	Soluble in water, alcohol, acetic acid.
Melting Point	276°C.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	302°C.	Partition Coefficient	N/A. (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and ignition sources.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong reducing agents, strong oxidizing agents, acids and bases.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Mercury Chloride: LD50 [oral, rat]; 1 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; 500 mg/severe

Material has been found to be a carcinogen and produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Contains a heavy metal – toxic to terrestrial and aquatic plants and animals. Do not release to environment.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Use a licensed chemical waste disposal firm for proper disposal.

Section 14: Transport Information

DOT Shipping Name: Mercuric Chloride.
DOT Hazard Class: 6.1, pg II, Marine Pollutant.
Identification Number: UN1624.

Canada TDG: Mercuric Chloride.
Hazard Class: 6.1, pg II, Marine Pollutant.
UN Number: UN1624.

Section 15: Regulatory Information

EINECS: Listed (231-299-8). **WHMIS Canada:** D1A, D2B: Very toxic material.
TSCA: All components are listed or are exempt. **California Proposition 65:** Listed – Developmental hazard.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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MSDS # 468.00

Methylene Blue Solution, 1% AqueousScholar
Chemistry**Section 1: Product and Company Identification****Methylene Blue Solution, 1% Aqueous****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA):** 800-424-9300**CANUTEC (Canada):** 613-424-6666

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Dark blue liquid, no odor***HMIS (0 to 4)**

Health	1
Fire Hazard	0
Reactivity	0

CAUTION! Body tissue irritant and slightly toxic by ingestion

Target organs: N/A

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

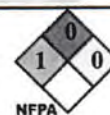
Section 3: Composition / Information on Ingredients

Methylene Blue Chloride (61-73-4), 1%.

Water (7732-18-5), 99%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**Non-flammable liquid. When heated to decomposition, emits toxic fumes of NO_x, SO_x and Chlorine.**Protective equipment and precautions for firefighters:** Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place in sealed bag or container for disposal. Ventilate and wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Methylene Blue Solution: OSHA PEL: Not Available, ACGIH: TLV: Not Available, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	C ₁₆ H ₁₈ N ₃ SCl.	Appearance	Dark blue liquid.
Molecular weight	N/A.	Odor	No odor.
Specific Gravity	~1.00 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water .
Melting Point	N/A.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A. (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	UEL	N/A.
Autoignition Temp.:	N/A.	LEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Oxidizing agents and reducing agents.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Methylene Blue Chloride: LD50 [oral, rat]; 1180 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not yet been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not Regulated.

Canada TDG: Not Regulated.

DOT Hazard Class: N/A.

Hazard Class: N/A.

Identification Number: N/A.

UN Number: N/A.

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: Not WHMIS controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

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Mineral Oil, Light

MSDS # 475.00

Scholar
Chemistry**Section 1: Product and Company Identification****Mineral Oil**

Synonyms/General Names: N/A

Product Use: For educational use only

Manufacturer: Columbus Chemical Industries, Inc., Columbus, WI 53925.

24 Hour Emergency Information Telephone Numbers

CHEMTREC (USA): 800-424-9300

CANUTEC (Canada): 613-424-6666

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification

Clear liquid, no odor.

HMIS (0 to 4)

Health	0
Fire Hazard	1
Reactivity	0

CAUTION! Combustible liquid.

Target organs: None known.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Mineral Oil (8042-47-5), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Combustible liquid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an dust cartridge. Exposure guidelines: Mineral Oil: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	Mixture.	Appearance	Clear liquid.
Molecular weight	0.851.	Odor	No odor.
Specific Gravity	>1 g/mL @ 15°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Insoluble.
Melting Point	N/A.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	>230°C.	Partition Coefficient	N/A. (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizers.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath.

Chronic Effects: No information found.

Sensitization: none expected

Mineral Oil: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Toxic to terrestrial and aquatic plants and animals. Do not release to the environment

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Use a licensed chemical waste disposal firm for proper disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (232-455-8).

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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MSDS # 480.30

Neutral Red Solution, 1% Aqueous*+ Powder***Scholar
Chemistry****Section 1: Product and Company Identification****Neutral Red Solution, 1% Aqueous****Synonyms/General Names:** Neutral Red, Water Solution.**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Clear, red liquid, no odor.***HMIS (0 to 4)**

Health	0
Fire Hazard	0
Reactivity	0

This material is not considered hazardous.

Target organs: None known.

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

Section 3: Composition / Information on Ingredients

Neutral Red (553-24-2), 1%.

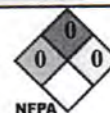
Water (7732-18-5), 99%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Noncombustible solution. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place in sealed bag or container for disposal. Ventilate and wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Exposure guidelines: Neutral Red: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	N/A.	Appearance	Clear, red liquid.
Molecular weight	N/A.	Odor	No odor.
Specific Gravity	1.0 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	N/A.
Melting Point	N/A.	Evaporation rate	N/A. (<i>Butyl acetate</i> = 1).
Boiling Point/Range	N/A.	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	pH indicator; 6.8 red to 8.0 yellow.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizers and reducing agents.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching. *Ingestion:* Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath.

Chronic Effects: No information found.

Sensitization: none expected

Neutral Red: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Not considered an environmental hazard.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Petrolatum (White)Scholar
Chemistry

MSDS # 517.00

Section 1: Product and Company Identification**Petrolatum (White)****Synonyms/General Names:** Petroleum Jelly, Vaseline.**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Soft, semi-solid, no odor.*

This material is not considered hazardous.

Target organs: None known.

HMIS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

Section 3: Composition / Information on Ingredients

Petrolatum, white (8009-03-8), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Exposure guidelines: Petrolatum: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	N/A.	Appearance	Soft, semi-solid.
Molecular weight	N/A.	Odor	No odor.
Specific Gravity	0.85 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in organic solids.
Melting Point	38-60°C.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A. (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizers.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath.

Chronic Effects: No information found.

Sensitization: none expected

Petrolatum: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (232-373-2).

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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MSDS # 522.00

Phenol Red Solution, 0.02% AqueousScholar
Chemistry**Section 1: Product and Company Identification****Phenol Red Solution, 0.02% Aqueous**

Synonyms/General Names: N/A

Product Use: For educational use only

Manufacturer: Columbus Chemical Industries, Inc., Columbus, WI 53925.

24 Hour Emergency Information Telephone Numbers

CHEMTREC (USA): 800-424-9300

CANUTEC (Canada): 613-424-6666

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification

Red translucent liquid, no odor.

HMIS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

This material is not considered hazardous.

Target organs: N/A

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

Section 3: Composition / Information on Ingredients

Phenol Red indicator powder (33487-61-1), 0.02% .

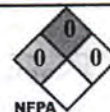
Water (7732-18-5), 99.98%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Noncombustible solution. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place in sealed bag or container for disposal. Ventilate and wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Exposure guidelines: Phenol Red: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	N/A.	Appearance	Red translucent liquid.
Molecular weight	N/A.	Odor	No odor.
Specific Gravity	1.00 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	N/A.
Melting Point	N/A.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	Indicator: pH 6.8 yellow to 8.4 red.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use and storage.

Incompatibility: N/A

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Phenol Red: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

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Phenolphthalein Indicator Solution

Scholar
Chemistry

MSDS # 528.00

Section 1: Product and Company Identification**Phenolphthalein Indicator Solution****Synonyms/General Names:** Phenolphthalein pH Indicator Solution, 0.5, 1.0, or 2.0% alcohol solution.**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Clear, colorless mobile liquid, mild characteristic odor.***HMIS (0 to 4)**

Health	2
Fire Hazard	3
Reactivity	0

WARNING! Alcohol based solution, flammable liquid and moderately toxic by ingestion. Contains a confirmed carcinogen. Flammable liquid, keep away from all ignition sources.

Target organs: Eyes, central nervous system, liver, kidneys.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Phenolphthalein (77-09-8), <1-2%.

Ethyl Alcohol, denatured (64-17-5), 66-69%.

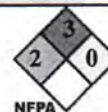
Water (7732-18-5), 27-29%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. **Aspiration hazard.** Rinse mouth with cold water. Give victim 1-2 tbsp of activated charcoal mixed with 8 oz water.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Class IB Flammable Liquid. When heated to decomposition, emits acrid fumes

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact. Material is sensitive to static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Red****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Flammable Area [Red Storage] with other flammable materials and away from any strong oxidizers. Store in a dedicated flammables cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an acid/organic cartridge. Exposure guidelines: Ethyl Alcohol: OSHA PEL: 1900 mg/m³ and ACGIH TLV: 1000 ppm, STEL: N/A, Phenolphthalein: OSHA PEL: N/A, ACGIH TLV: N/A, STEL: N/A

Section 9: Physical and Chemical Properties

Molecular formula	N/A.	Appearance	Clear colorless mobile liquid.
Molecular weight	N/A.	Odor	Mild characteristic odor.
Specific Gravity	0.858 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	1.59.	Solubility	Soluble.
Melting Point	N/A.	Evaporation rate	3.3 (Butyl acetate = 1).
Boiling Point/Range	N/A.	Partition Coefficient	-0.32 (log P _{OW}).
Vapor Pressure (20°C)	59.3 mm Hg.	pH	Indicator: pH 8.2 colorless to 10.0 pink.
Flash Point:	17°C (63°F) CC.	LEL	3.3%.
Autoignition Temp.:	363°C (685°F) .	UEL	19%.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and ignition sources.
Stability: Stable under normal conditions of use.
Incompatibility: Strong oxidizing agents, acids.
Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: **Eyes:** Stinging pain, watering of eyes, inflammation of eyelids and conjunctivitis. **Skin:** Insensitivity to pain, feel of coolness or cold, skin looks white and feels hard and cold. **Ingestion:** Breath has sweet, organic odor, mental confusion, drowsiness, nausea, vomiting and headache. **Inhalation:** Rapid irregular breathing, headache, fatigue, mental confusion, nausea and vomiting, giddiness and poor judgment, convulsions and death.
Chronic Effects: Repeated/prolonged skin contact may cause dryness or rashes.
Sensitization: none expected
Ethyl Alcohol: LD50 [oral, rat]; 7060 mg/kg; LC50 [rat]; 20,000 mg/l (10 hours); LD50 Dermal [rabbit]; 20 mg/24H MOD
Phenolphthalein: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A
Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name:	Ethanol solutions.	Canada TDG:	Ethanol solutions.
DOT Hazard Class:	3, pg II.	Hazard Class:	3, pg II.
Identification Number:	UN1170.	UN Number:	UN1170.

Section 15: Regulatory Information

EINECS: Not listed. **WHMIS Canada:** Not WHMIS controlled.
TSCA: All components are listed or are exempt. **California Proposition 65:** Listed as a cancer causing agent.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

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S Number: P5282 ***** Effective Date: 11/21/08 ***** Supersedes: 02/16/06

MSDS Material Safety Data SheetFrom: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance

24 Hour Emergency Telephone: 908-859-2151
CHEMTREC: 1-800-424-9300National Response in Canada
CANUTEC: 613-996-6666Outside U.S. And Canada
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

POLYVINYL ALCOHOL**1. Product Identification**

Synonyms: Polyvinyl alcohol; PVA; Polyvinol; ethenol homopolymer

CAS No.: 9002-89-5

Molecular Weight: Not applicable to mixtures.

Chemical Formula: [-CH₂CHOH-]_n

Product Codes: U227, U228, U229, U232

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
ethyl Alcohol	67-56-1	< 1%	No
Polyvinyl Alcohol	9002-89-5	> 95%	Yes

3. Hazards Identification**Emergency Overview**

CAUTION! MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR. NUISANCE DUST.

SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 0 - None

Flammability Rating: 2 - Moderate

Reactivity Rating: 0 - None

Contact Rating: 0 - None

Lab Protective Equip: GOGGLES; LAB COAT; CLASS B EXTINGUISHER

Storage Color Code: Red (Flammable)

Potential Health Effects**Inhalation:**

Dust may be formed under certain conditions of use. Treat as a nuisance dust. When heated above 200C, fumes irritating the eyes nose, throat will be evolved. Symptoms may include tears in the eyes with itching, redness, burning pain in throat and nose.

Ingestion:

Not expected to be a health hazard via ingestion.

Skin Contact:

Not expected to be a health hazard from skin exposure.

Eye Contact:

Mechanical irritation only.

Chronic Exposure:

No human data. Animal studies showed a drop in hemoglobin and erythrocyte (red blood cell) number with eventual complete coagulation inhibition. There is the possibility of carcinogenicity as seen in some animal studies.

Aggravation of Pre-existing Conditions:

No information found.

First Aid Measures

Inhalation:

Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:

Not expected to require first aid measures.

Skin Contact:

Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact:

Wash thoroughly with running water. Get medical advice if irritation develops.

5. Fire Fighting Measures

Fire:

Flash point: 79C (174F) OC

As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source. Minimum dust cloud ignition temperature: 450C (842F).

Explosion:

Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Maximum explosion pressure: 78 lb./sq. in.

Fire Extinguishing Media:

Water spray, dry chemical, alcohol foam, or carbon dioxide.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Separate from incompatibilities. Avoid dust formation and control ignition sources. Employ grounding, venting and explosion relief provisions in accord with accepted engineering practices in any process capable of generating dust and/or static electricity. Empty only into inert or non-flammable atmosphere. Emptying contents into a non-inert atmosphere where flammable vapors may be present could cause a flash fire or explosion due to electrostatic discharge.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

None established.

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear protective gloves and clean body-covering clothing.

Eye Protection:

Use chemical safety goggles.

9. Physical and Chemical Properties

Appearance:

White free-flowing granules.

Odor:

Mild odor.

Solubility:

Moderately soluble.

Specific Gravity:

1.19 - 1.31

pH:

Aqueous solution is neutral or slightly acid.

% Volatiles by volume @ 21C (70F):

0

Boiling Point:

No information found.

Melting Point:

ca. 200C (ca. 392F)

Vapor Density (Air=1):

No information found.

Vapor Pressure (mm Hg):

No information found.

Evaporation Rate (BuAc=1):

No information found.

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

Complete combustion will emit carbon dioxide and water when heated to decomposition. Incomplete combustion gives in addition carbon monoxide and oxidation products, including organic acids, aldehydes and alcohol.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Strong oxidizers.

Conditions to Avoid:

Heat, flame, ignition sources, dusting and incompatibles.

Toxicological Information

Oral rat LD50: > 20 gm/kg. Investigated as a tumorigen.

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Methyl Alcohol (67-56-1)	No	No	None
Polyvinyl Alcohol (9002-89-5)	No	No	3

12. Ecological Information

Environmental Fate:

No information found.

Environmental Toxicity:

No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

Regulatory Information

-----\Chemical Inventory Status - Part 1\-----

POLYVINYL ALCOHOL

Ingredient	TSCA	EC	Japan	Australia
Methyl Alcohol (67-56-1)	Yes	Yes	Yes	Yes
Polyvinyl Alcohol (9002-89-5)	Yes	No	Yes	Yes

-----\Chemical Inventory Status - Part 2\-----

Ingredient	Korea	DSL	NDSL	Phil.
Methyl Alcohol (67-56-1)	Yes	Yes	No	Yes
Polyvinyl Alcohol (9002-89-5)	Yes	Yes	No	Yes

-----\Federal, State & International Regulations - Part 1\-----

Ingredient	-SARA 302-		-SARA 313-	
	RQ	TPQ	List	Chemical Catg.
Methyl Alcohol (67-56-1)	No	No	Yes	No
Polyvinyl Alcohol (9002-89-5)	No	No	No	No

-----\Federal, State & International Regulations - Part 2\-----

Ingredient	CERCLA	-RCRA-		-TSCA-
		5000	261.33	8(d)
Methyl Alcohol (67-56-1)	No	U154	No	No
Polyvinyl Alcohol (9002-89-5)	No	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
 SARA 311/312: Acute: No Chronic: No Fire: Yes Pressure: No
 Reactivity: No (Mixture / Solid)

Australian Hazchem Code: None allocated.

Poison Schedule: None allocated.

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 0 Flammability: 2 Reactivity: 0

Label Hazard Warning:

CAUTION! MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR. NUISANCE DUST.

Label Precautions:

Store in a tightly closed container.

Avoid breathing dust.

Avoid dust cloud in presence of an ignition source.

Maintain adequate ventilation.

Label First Aid:

Not applicable.

Product Use:

Laboratory Reagent.

Revision Information:

MSDS Section(s) changed since last revision of document include: 3.

Disclaimer:

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Prepared by: Environmental Health & Safety

Phone Number: (314) 654-1600 (U.S.A.)

Potassium Chromate

MSDS # 560.00

Scholar
Chemistry**Section 1: Product and Company Identification****Potassium Chromate****Synonyms/General Names:** Dipotassium Chromate.**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Yellow crystals, no odor.***HMIS (0 to4)**

Health	4
Fire Hazard	0
Reactivity	3

DANGER! Highly toxic by ingestion, known carcinogen, strong oxidizing agent, and body tissue irritant.
Target organs: Liver, kidneys, blood, respiratory system.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Potassium Chromate (7789-00-6), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.
Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Strong Oxidizer. When heated to decomposition, emits acrid chromate fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Blue****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Toxic Storage Area [Blue Storage] with other toxic material. Store in a dedicated poison cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Chromium compounds: OSHA PEL: 0.001 mg/m³, ACGIH: TLV: 0.01 mg/m³, STEL: 0.1 mg/m³.

Section 9: Physical and Chemical Properties

Molecular formula	K ₂ CrO ₄	Appearance	Yellow crystals.
Molecular weight	194.21.	Odor	No odor.
Specific Gravity	2.73 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water, not alcohol.
Melting Point	975°C.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	9, basic.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use and storage. Avoid heat and ignition sources.

Incompatibility: Reducing agents, oxidizing materials, organic substances, combustible materials.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: Carcinogen, IARC group 1; ACGIH A1, NTP Known

Sensitization: none expected

Potassium Chromate: LD50 [oral, mouse]; 180 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has been found to be a carcinogen or produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Contains a heavy metal – toxic to terrestrial and aquatic plants and animals. Do not release to environment.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Use a licensed chemical waste disposal firm for proper disposal.

Section 14: Transport Information

DOT Shipping Name:	Toxic solids, oxidizing, n.o.s., (Potassium Chromate)	Canada TDG:	Toxic solids, oxidizing, n.o.s. (Potassium Chromate).
DOT Hazard Class:	6.1(5.1), pg II.	Hazard Class:	6.1(5.1), pg II.
Identification Number:	UN3086.	UN Number:	UN3086.

Section 15: Regulatory Information

EINECS: Listed (232-140-5).

TSCA: All components are listed or are exempt.

WHMIS Canada: C, D2A, D2B; Oxidizing, toxic material, Carcinogen

California Proposition 65: Listed Carcinogen.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

Potassium Hydroxide

MSDS # 570.00

Scholar
Chemistry**Section 1: Product and Company Identification****Potassium Hydroxide****Synonyms/General Names:** Caustic Potash, Potassium Hydrate.**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White pellets or flakes, no odor.***WARNING!** Extremely corrosive to all body tissue and highly toxic by ingestion.
Target organs: None known.

HMIS (0 to 4)

Health	3
Fire Hazard	0
Reactivity	2

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

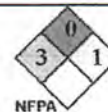
Potassium Hydroxide (1310-58-3), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. **Do not induce vomiting.** Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Releases large amounts of heat when mixed with water. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage

White

Handling: Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Corrosive Area [White Storage] with other corrosive items. Store in a dedicated corrosive cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines Potassium Hydroxide: OSHA PEL: N/A, ACGIH TLV: N/A, STEL: 2 mg/m³ ceiling.

Section 9: Physical and Chemical Properties

Molecular formula	KOH.	Appearance	White pellets or flakes.
Molecular weight	56.11.	Odor	No odor.
Specific Gravity	2.04 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water, alcohol, glycerin.
Melting Point	361°C.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	1320°C.	Partition Coefficient	N/A. (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and ignition sources.

Stability: Stable under normal conditions of use and storage.**Incompatibility:** Acids, organics, aluminum, halogen, magnesium, nitro compounds, acid chlorides, acid anhydrides, copper.**Shelf life:** Fair shelf life, store in a cool, dry environment.**Section 11: Toxicology Information**

Acute Symptoms/Signs of exposure: **Eyes:** Redness, tearing, itching, burning, damage to cornea, conjunctivitis, loss of vision. **Skin:** Redness, blistering, burning, itching, tissue destruction with slow healing. **Ingestion:** Nausea, vomiting, burning, diarrhea, ulceration, convulsions, shock. **Inhalation:** Coughing, wheezing, shortness of breath, headache, spasm, inflammation and edema of bronchi, pneumonitis.

Chronic Effects: Repeated/prolonged skin contact may cause thickening, blackening or cracking. Repeated eye exposure may cause corneal erosion or loss of vision.

Sensitization: none expected

Potassium Hydroxide: LD50 [oral, rat]; 273 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; 50 mg/24hr/Severe Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information**Ecotoxicity (aquatic and terrestrial):** Ecological impact has not been determined.**Section 13: Disposal Considerations**

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer disposal after being neutralized to pH 7.

Section 14: Transport Information

DOT Shipping Name:	Potassium Hydroxide, solid.	Canada TDG:	Potassium Hydroxide, solid.
DOT Hazard Class:	8, pg II.	Hazard Class:	8, pg II.
Identification Number:	UN1813.	UN Number:	UN1813.

Section 15: Regulatory Information**EINECS:** Listed (215-181-3).**WHMIS Canada:** D1B, E: Toxic material, Corrosive.**TSCA:** All components are listed or are exempt.**California Proposition 65:** Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information**Current Issue Date:** January 23, 2009

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1/23/2009

Potassium Iodide

MSDS # 575.00

Scholar
Chemistry**Section 1: Product and Company Identification****Potassium Iodide****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White, crystalline powder, no odor***HMIS (0 to 4)**

Health	0
Fire Hazard	0
Reactivity	0

This material is not considered hazardous.

Target organs: None known

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Potassium Iodide (7681-11-0), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Non-flammable solid. When heated to decomposition, emits toxic fumes of iodine and potassium oxides.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool containers with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Potassium Iodide: OSHA PEL: Not Available, ACGIH: TLV: Not Available, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	KI.	Appearance	White, crystalline powder.
Molecular weight	166.01.	Odor	None.
Specific Gravity	3.13 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water, glycerin and alcohol.
Melting Point	680°C .	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	1323°C.	Partition Coefficient	N/A. (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	UEL	N/A.
Autoignition Temp.:	N/A.	LEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Oxidizers and metallic salts.

Shelf life: Poor shelf life, protect from light and moisture. Store in cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Potassium Iodide: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not yet been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not Regulated.

Canada TDG: Not Regulated.

DOT Hazard Class: N/A.

Hazard Class: N/A.

Identification Number: N/A.

UN Number: N/A.

Section 15: Regulatory Information

EINECS: Listed (231-659-4).

WHMIS Canada: D2A, Very toxic material causing other toxic effects.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Potassium Phosphate MonobasicScholar
Chemistry

MSDS # 589.00

Section 1: Product and Company Identification**Potassium Phosphate Monobasic****Synonyms/General Names:** Potassium Dihydrogen Phosphate.**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White crystals, no odor.***CAUTION!** Body tissue irritant.
Target organs: None known.**HMIS (0 to 4)**

Health	1
Fire Hazard	0
Reactivity	0

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Potassium Phosphate, monobasic (7778-77-0), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.
Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Nonflammable solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge.

Exposure guidelines: Potassium Phosphate: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	KH ₂ PO ₄	Appearance	White crystals.
Molecular weight	136.09.	Odor	No odor.
Specific Gravity	N/A.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water .
Melting Point	253°C.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A. (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	10, basic.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.**Incompatibility:** Strong bases.**Shelf life:** Poor shelf life, hygroscopic, store in a cool, dry environment.**Section 11: Toxicology Information****Acute Symptoms/Signs of exposure:** *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.**Ingestion:** Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,**Chronic Effects:** No information found.**Sensitization:** none expected*Potassium Phosphate: LD50 [oral, rat]; 4640 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A**Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.***Section 12: Ecological Information****Ecotoxicity (aquatic and terrestrial):** Not considered an environmental hazard.**Section 13: Disposal Considerations**

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information**DOT Shipping Name:** Not regulated by DOT.**Canada TDG:** Not regulated by TDG.**DOT Hazard Class:****Hazard Class:****Identification Number:****UN Number:****Section 15: Regulatory Information****EINECS:** Listed (231-913-4).**WHMIS Canada:** Not WHMIS Controlled.**TSCA:** All components are listed or are exempt.**California Proposition 65:** Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information**Current Issue Date:** January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

Potassium SulfateScholar
Chemistry

MSDS # 593.00

Section 1: Product and Company Identification**Potassium Sulfate****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White crystalline powder, no odor.*

This material is not considered hazardous.

Target organs: None known.

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

HMS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

Section 3: Composition / Information on Ingredients

Potassium Sulfate (7778-80-5), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Potassium Sulfate: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	K ₂ SO ₄	Appearance	White crystalline powder.
Molecular weight	174.27.	Odor	No odor.
Specific Gravity	2.66 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water.
Melting Point	1067°C.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	1689°C.	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Aluminum, magnesium.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Potassium Sulfate: LD50 [oral, rat]; 6600 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (231-195-5)

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Safranin O SolutionScholar
Chemistry

MSDS # 611.00

Section 1: Product and Company Identification**Safranin O Solution****Synonyms/General Names:** Safranin O, Aqueous Solution**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry, 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Dark red-brown liquid, no odor.*

This material is not considered hazardous.

Target organs: None known.

HMIS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

Section 3: Composition / Information on Ingredients

Safranin O (477-73-6), <1%.

Sodium Benzoate (532-32-1), 0.2%.

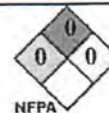
Water (7732-18-5), >98.8%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Noncombustible solution. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place in sealed bag or container for disposal. Ventilate and wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Exposure guidelines: Safranin O: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	Mixture.	Appearance	Dark brown liquid.
Molecular weight	N/A.	Odor	No odor.
Specific Gravity	1.00 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	N/A.
Melting Point	N/A.	Evaporation rate	N/A. (Butyl acetate = 1).
Boiling Point/Range	N/A.	Partition Coefficient	N/A. (log <i>P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizers.

Shelf life: Indefinite shelf life if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: **Eyes:** Redness, tearing, itching, burning, conjunctivitis. **Skin:** Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Safranin O: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (207-518-8)

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Silica Gel 3-8 Mesh

fine granular sand

Scholar
Chemistry

MSDS # 619.00

Section 1: Product and Company Identification**Silica Gel 3-8 Mesh****Synonyms/General Names:** Amorphous Silica.**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White granules or beads, no odor.*

This material is not considered hazardous.

Target organs: None known.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

HMIS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

Section 3: Composition / Information on Ingredients

Silica gel, amorphous (1343-98-2), >99%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Noncombustible solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Exposure guidelines: Silica Gel: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	SiO ₂ +xH ₂ O.	Appearance	White granules or beads.
Molecular weight	N/A.	Odor	No odor.
Specific Gravity	0.75 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Insoluble.
Melting Point	N/A.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A.	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Water.

Shelf life: Fair shelf life, store in a cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Silica Gel: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Not considered an environmental hazard.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

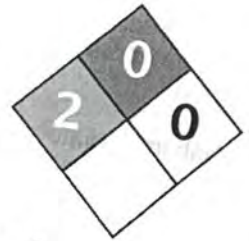
California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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He
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Pers
Prote

Material Safety Data Sheet
Sodium ammonium phosphate MSDS
Green

Section 1: Chemical Product and Company Identification

Product Name: Sodium ammonium phosphate

Catalog Codes: SLS2500

CAS#: 13011-54-6

RTECS: Not available.

TSCA: TSCA 8(b) inventory: Sodium ammonium phosphate

CI#: Not available.

Synonym:

Chemical Name: Not available.

Chemical Formula: NaNH4HPO4.4H2O

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: 1-800-901-7247

International Sales: 1-281-441-4400

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:
1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Composition:

Section 2: Composition and Information on Ingredients

Name	CAS #	% by Weight
Sodium ammonium phosphate	13011-54-6	100

Toxicological Data on Ingredients: Sodium ammonium phosphate LD50: Not available. LC50: Not available.

Section 3: Hazards Identification

Potential Acute Health Effects: Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects: Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

The substance is toxic to lungs, mucous membranes.

Repeated or prolonged exposure to the substance can produce target organs damage.

Eye Contact:

Section 4: First Aid Measures

dated: 11/06/2008 12:00 PM

Information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall ScienceLab.com be liable for any claims, losses, or damages of any kind, including but not limited to, special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if ScienceLab.com has been advised of the possibility of such damages.

Sodium Bicarbonate

MSDS # 640.00

Scholar
Chemistry**Section 1: Product and Company Identification****Sodium Bicarbonate****Synonyms/General Names:** Sodium Hydrogen Carbonate. *Baking Soda***Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White crystalline powder, no odor.***HMS (0 to 4)**

Health	0
Fire Hazard	0
Reactivity	0

This material is not considered hazardous.

Target organs: None known.

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly

Section 3: Composition / Information on Ingredients

Sodium Bicarbonate, anhydrous (144-55-8), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Sodium Bicarbonate: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	NaHCO ₃ .	Appearance	White crystalline powder.
Molecular weight	84.01.	Odor	No odor.
Specific Gravity	2.16 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water.
Melting Point	109°C.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	Decomposes.	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	11, basic.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Acids, water, carbon dioxide.

Shelf life: Fair shelf life, store in a cool dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Sodium Bicarbonate: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Not considered an environmental hazard.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (205-633-8).

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Sodium Carbonate MonohydrateScholar
Chemistry

MSDS # 649.00

Section 1: Product and Company Identification**Sodium Carbonate Monohydrate**

Synonyms/General Names: N/A

Product Use: For educational use only

Manufacturer: Columbus Chemical Industries, Inc., Columbus, WI 53925.

24 Hour Emergency Information Telephone Numbers

CHEMTREC (USA): 800-424-9300

CANUTEC (Canada): 613-424-6666

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification

White crystal, no odor.

CAUTION! Body tissue irritant.

Target organs: None known.

HMIS (0 to 4)

Health	1
Fire Hazard	0
Reactivity	0

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Sodium Carbonate Monohydrate (5968-11-6), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an dust cartridge. Exposure guidelines: Sodium Carbonate: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	Na ₂ CO ₃ •H ₂ O.	Appearance	White crystal.
Molecular weight	124.00.	Odor	None.
Specific Gravity	2.25 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water and glycerin.
Melting Point	851°C.	Evaporation rate	N/A. (Butyl acetate = 1).
Boiling Point/Range	1600°C.	Partition Coefficient	N/A. (log P _{ow}).
Vapor Pressure (20°C)	N/A.	pH	12, basic.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Acids,

Shelf life: Fair shelf life, store in a cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Sodium Carbonate: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Not considered an environmental hazard.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: D2B, E: Toxic Material, Corrosive material.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

Sodium Chloride

MSDS # 652.00

Scholar
Chemistry**Section 1: Product and Company Identification****Sodium Chloride****Synonyms/General Names:** Salt; Common Salt; Rock Salt**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White crystalline powder, no odor.***CAUTION!** Slightly toxic by ingestion.

Target organs: None known.

HMS (0 to 4)

Health	1
Environmental	0
Reactivity	0

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Sodium Chloride (7647-14-5), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an dust cartridge. Exposure guidelines: Sodium Chloride: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	NaCl	Appearance	White crystalline powder.
Molecular weight	58.44	Odor	None.
Specific Gravity	2.17 g/ml. @ 20°C	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water.
Melting Point	800.7°C.	Evaporation rate	N/A. (Butyl acetate = 1).
Boiling Point/Range	1465°C.	Partition Coefficient	N/A. (log P _{ow}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Sulfuric acid, nitric acid.

Shelf life: Fair shelf life, store in a cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: **Eyes:** Redness, tearing, itching, burning, conjunctivitis. **Skin:** Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath.

Chronic Effects: No information found.

Sensitization: none expected

Sodium Chloride: LD50 [oral, rat]; 2000 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Not considered an environmental hazard.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (231-598-3)

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

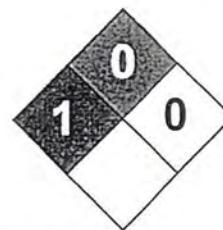
California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc. ("S&C") believe that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including without limitation, warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.



Health	1
Fire	0
Reactivity	0
Personal Protection	A

Material Safety Data Sheet

Sodium Chloride Solution, 0.9%, sterile MSDS

Section 1: Chemical Product and Company Identification

Product Name: Sodium Chloride Solution, 0.9%, sterile

Catalog Codes: SLS1957

CAS#: Mixture.

RTECS: Not applicable.

TSCA: TSCA 8(b) inventory: Sodium chloride; Water

CI#: Not applicable.

Synonym: Sodium Chloride, 0.9% solution (w/v); 0.9% Normal Saline solution; Isotonic saline solution; Sodium Chloride, sterile, 0.9% solution, saline for irrigation.

Chemical Name: Not applicable.

Chemical Formula: Not applicable.

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: 1-800-901-7247
International Sales: 1-281-441-4400

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:
1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Sodium chloride	7647-14-5	0.9
Water	7732-18-5	99.1

Toxicological Data on Ingredients: Sodium chloride: ORAL (LD50): Acute: 3000 mg/kg [Rat]. 4000 mg/kg [Mouse]. DERMAL (LD50): Acute: >10000 mg/kg [Rabbit]. DUST (LC50): Acute: >42000 mg/m 1 hours [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects:

Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, . Non-corrosive for skin. Non-corrosive to the eyes. Non-corrosive for lungs.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. [Sodium chloride]. Mutagenic for bacteria and/or yeast. [Sodium chloride]. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female [POSSIBLE] [Sodium chloride].

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

Skin Contact:

Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Serious Skin Contact: Not available.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances: Non-explosive in presence of open flames and sparks, of shocks.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards:

Electrolysis of sodium chloride in presence of nitrogenous compounds to produce chlorine may lead to formation of explosive nitrogen trichloride. Potentially explosive reaction with dichloromaleic anhydride + urea. (Sodium chloride)

Section 6: Accidental Release Measures

Small Spill:

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions:

Keep locked up.. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. If you feel unwell, seek medical attention and show the label when possible.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Personal Protection: Safety glasses. Lab coat.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Liquid.

Odor: Not available.

Taste: Not available.

Molecular Weight: Not applicable.

Color: Clear Colorless.

pH (1% soln/water): Neutral.

Boiling Point: The lowest known value is 100°C (212°F) (Water).

Melting Point: Not available.

Critical Temperature: Not available.

Specific Gravity: The only known value is 1 (Water = 1) (Water).

Vapor Pressure: The highest known value is 2.3 kPa (@ 20°C) (Water).

Vapor Density: The highest known value is 0.62 (Air = 1) (Water).

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water.

Solubility: Easily soluble in cold water, hot water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials

Incompatibility with various substances: Not available.

Corrosivity: Not considered to be corrosive for metals and glass.

Special Remarks on Reactivity:

Hygroscopic. Reacts with most nonnoble metals such as iron or steel, building materials (such as cement) Sodium chloride is rapidly attacked by bromine trifluoride. Violent reaction with lithium. (Sodium chloride)

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact.

Toxicity to Animals:

LD50: Not available. LC50: Not available.

Chronic Effects on Humans:

MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. [Sodium chloride]. Mutagenic for bacteria and/or yeast. [Sodium chloride]. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female [POSSIBLE] [Sodium chloride].

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Lowest Published Lethal Dose (LDL) [Man] - Route: Oral; Dose: 1000 mg/kg (Sodium chloride)

Special Remarks on Chronic Effects on Humans:

May cause adverse reproductive effects (fetotoxicity, abortion, maternal effects) by intraplacental route. May affect genetic material (mutagenic) (Sodium chloride)

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: Causes eye irritation. Ingestion: Ingestion of large quantities can irritate the stomach (as in overuse of salt tablets) with nausea and vomiting. May affect behavior (muscle spasticity/contraction, somnolence), sense organs, metabolism, and cardiovascular system. Continued exposure may produce dehydration, internal organ congestion, and coma. Inhalation: Material is irritating to mucous membranes and upper respiratory tract. (Sodium chloride)

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

Federal and State Regulations: TSCA 8(b) inventory: Sodium chloride; Water

Other Regulations: Not available. or of its ingredients

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC):

This product is not classified according to the EU regulations. Not applicable.

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 0

Reactivity: 0

Personal Protection: a

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 0

Reactivity: 0

Specific hazard:

Protective Equipment:

Not applicable. Lab coat. Not applicable. Safety glasses.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

Created: 10/09/2005 06:30 PM

Last Updated: 11/01/2010 12:00 PM

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Health	2
Fire	0
Reactivity	0
Personal Protection	E

Material Safety Data Sheet Sodium ferrocyanide MSDS

Green

Section 1: Chemical Product and Company Identification

Product Name: Sodium ferrocyanide

Catalog Codes: SLS1630, SLS3052

CAS#: 13601-19-9

RTECS: Not available.

TSCA: TSCA 8(b) inventory: Sodium ferrocyanide

CI#: Not available.

Synonym:

Chemical Formula: C₆-Fe-N₆-Na₄.10H₂O

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:
1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Sodium ferrocyanide	13601-19-9	100

Toxicological Data on Ingredients: Sodium ferrocyanide LD50: Not available. LC50: Not available.

Section 3: Hazards Identification

Potential Acute Health Effects:

Extremely hazardous in case of ingestion. Hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.

Potential Chronic Health Effects:

Extremely hazardous in case of ingestion.
Hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

The substance is toxic to blood, lungs, mucous membranes.

Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

Skin Contact:

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation: Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Serious Inhalation: Not available.

Ingestion:

Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill: Use a shovel to put the material into a convenient waste disposal container.

Section 7: Handling and Storage

Precautions:

Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes.

Storage:

No specific storage is required. Use shelves or cabinets sturdy enough to bear the weight of the chemicals. Be sure that it is not necessary to strain to reach materials, and that shelves are not overloaded.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Crystals solid.)

Odor: Odorless.

Taste: Not available.

Molecular Weight: 484.06 g/mole

Color: Yellow.

pH (1% soln/water): Not available.

Boiling Point: Not available.

Melting Point: Decomposes. (435°C or 815°F)

Critical Temperature: Not available.

Specific Gravity: 1.458 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water.

Solubility: Soluble in cold water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Not available.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: No.

Section 11: Toxicological Information

Routes of Entry: Eye contact. Inhalation. Ingestion.

Toxicity to Animals:

LD50: Not available.

LC50: Not available.

Chronic Effects on Humans: The substance is toxic to blood, lungs, mucous membranes.

Other Toxic Effects on Humans:

Extremely hazardous in case of ingestion.

Hazardous in case of skin contact (irritant), of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Section 14: Transport Information

DOT Classification:

CLASS 9: Miscellaneous hazardous material.
Marine pollutant

Identification: : Environmentally hazardous substance, solid, n.o.s. (Sodium ferrocyanide) : UN3077 PG: III

Special Provisions for Transport: Marine Pollutant

Section 15: Other Regulatory Information

Federal and State Regulations: TSCA 8(b) inventory: Sodium ferrocyanide

Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:

WHMIS (Canada): CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC): R36/38- Irritating to eyes and skin.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 0

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 0

Reactivity: 0

Specific hazard:

Protective Equipment:

Gloves.
Lab coat.
Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

Created: 10/09/2005 06:31 PM

Last Updated: 11/06/2008 12:00 PM

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Sodium Hydroxide

Scholar
Chemistry

MSDS # 666.00

Section 1: Product and Company Identification**Sodium Hydroxide****Synonyms/General Names:** Caustic Soda, Lye**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White pellets, flakes or beads, no odor.***HMIS (0 to 4)**

Health	3
Fire Hazard	0
Reactivity	3

WARNING! Strongly corrosive to body tissue and moderately toxic by ingestion. Large amount of heat released when mixing with water.

Target organs: Respiratory and gastrointestinal system, eyes, skin.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Sodium Hydroxide (1310-73-2), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. *Do not induce vomiting.* Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Noncombustible solid. When heated to decomposition, emits acrid fumes of sodium oxides.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**White****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Corrosive Area [White Storage] with other corrosive items. Store in a dedicated corrosive cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines Sodium Hydroxide: OSHA PEL: 2 mg.m³ and ACGIH TLV: N/A, STEL: 2 mg/m³ ceiling.

Section 9: Physical and Chemical Properties

Molecular formula	NaOH.	Appearance	White pellets, flakes or beads.
Molecular weight	40.00.	Odor	No odor.
Specific Gravity	2.13 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	3.4.	Solubility	Completely soluble in water.
Melting Point	323°C.	Evaporation rate	N/A. (<i>Butyl acetate</i> = 1).
Boiling Point/Range	1388°C.	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	14, very basic, (corrosive).
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

Section 10: Stability and Reactivity

Avoid heat and ignition sources. Preparing aqueous solution generates excessive heat – use care when mixing with water.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Acids, organic compounds, metals, moisture.

Shelf life: Indefinite if container kept tightly closed. Will absorb moisture.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, damage to cornea, conjunctivitis, loss of vision. *Skin:* Redness, blistering, burning, itching, tissue destruction with slow healing. *Ingestion:* Nausea, vomiting, burning, diarrhea, ulceration, convulsions, shock. *Inhalation:* Coughing, wheezing, shortness of breath, headache, spasm, inflammation and edema of bronchi, pneumonitis.

Chronic Effects: Repeated/prolonged skin contact may cause thickening, blackening or cracking. Repeated eye exposure may cause corneal erosion or loss of vision.

Sensitization: none expected

Sodium Hydroxide: LD50 [oral, rabbit]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; 500 mg/24hr severe

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer disposal after being neutralized to pH 7.

Section 14: Transport Information

DOT Shipping Name:	Sodium Hydroxide, solid.	Canada TDG:	Sodium Hydroxide, solid.
DOT Hazard Class:	8, pg II.	Hazard Class:	8, pg II.
Identification Number:	UN1823.	UN Number:	UN1823.

Section 15: Regulatory Information

EINECS: Listed (215-185-5).

WHMIS Canada: E: Corrosive liquid.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

MSDS # 675.00

Sodium Hypochlorite Solution, 5%Scholar
Chemistry**Section 1: Product and Company Identification****Sodium Hypochlorite Solution, 5%****Synonyms/General Names:** Bleach**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Clear, colorless liquid, strong bleach odor.***HMIS (0 to 4)**

Health	2
Fire Hazard	0
Reactivity	1

WARNING! Corrosive to body tissue and moderately toxic by ingestion and inhalation.
Target organs: Respiratory system, eyes, skin.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Sodium Hypochlorite (7681-52-9), 5%.

Sodium Carbonate (497-19-8), 0.1%.

Water (7732-18-5), 95%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. *Do not induce vomiting.* Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Nonflammable solution. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**White****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Corrosive Area [White Storage] with other corrosive items. Store in a dedicated corrosive cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an acid/organic cartridge. Exposure guidelines Sodium Hypochlorite: OSHA PEL: N/A, ACGIH TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	NaOCl.	Appearance	Clear, colorless liquid.
Molecular weight	74.45.	Odor	Odor of hypochlorites.
Specific Gravity	1.08 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	2.58.	Solubility	Completely soluble in water.
Melting Point	0°C.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	100°C.	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	14 mm Hg.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use and storage.

Incompatibility: Acids, oxidizable materials, ammonia.

Shelf life: Fair shelf life, store in a cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, damage to cornea, conjunctivitis, loss of vision. *Skin:* Redness, blistering, burning, itching, tissue destruction with slow healing. *Ingestion:* Nausea, vomiting, burning, diarrhea, ulceration, convulsions, shock. *Inhalation:* Coughing, wheezing, shortness of breath, headache, spasm, inflammation and edema of bronchi, pneumonitis.

Chronic Effects: Repeated/prolonged skin contact may cause thickening, blackening or cracking. Repeated eye exposure may cause corneal erosion or loss of vision.

Sensitization: none expected

Sodium Hypochlorite: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer disposal after being neutralized to pH 7.

Section 14: Transport Information

DOT Shipping Name:	Hypochlorite Solutions .	Canada TDG:	Hypochlorite Solutions.
DOT Hazard Class:	8, pg III .	Hazard Class:	8, pg III .
Identification Number:	UN1791 .	UN Number:	UN1791 .

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: CLASS E: Corrosive liquid.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Sodium Sulfate AnhydrousScholar
Chemistry

MSDS # 695.00

Section 1: Product and Company Identification**Sodium Sulfate Anhydrous**

Synonyms/General Names: N/A

Product Use: For educational use only

Manufacturer: Columbus Chemical Industries, Inc., Columbus, WI 53925.

24 Hour Emergency Information Telephone Numbers

CHEMTREC (USA): 800-424-9300

CANUTEC (Canada): 613-424-6666

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification

White crystalline powder, no odor.

CAUTION! Body tissue irritant.
Target organs: None known**HMIS (0 to 4)**

Health	0
Fire Hazard	0
Reactivity	0

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Sodium Sulfate, anhydrous (7757-82-6), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an dust cartridge. Exposure guidelines: Sodium Sulfate: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	Na ₂ SO ₄	Appearance	White crystalline powder.
Molecular weight	142.04.	Odor	No odor.
Specific Gravity	2.7 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water.
Melting Point	884°C.	Evaporation rate	N/A. (Butyl acetate = 1).
Boiling Point/Range	1700°C.	Partition Coefficient	N/A. (log P _{OW}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage. Hygroscopic

Incompatibility: Aluminum, magnesium, acids

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Sodium Sulfate: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG:

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (231-820-9).

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Sodium Thiosulfate, AnhydrousScholar
Chemistry

MSDS # 703.00

Section 1: Product and Company Identification**Sodium Thiosulfate, Anhydrous****Synonyms/General Names:** Sodium Hyposulfate**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White crystals, no odor.***CAUTION!** Slightly toxic by ingestion and body tissue irritant.
Target organs: None known.**HMIS (0 to 4)**

Health	1
Fire Hazard	0
Reactivity	0

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Sodium Thiosulfate, Anhydrous (7772-98-7), 100%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.
Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an dust cartridge. Exposure guidelines: Sodium Thiosulfate: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	Na ₂ S ₂ O ₃	Appearance	White crystals.
Molecular weight	158.11.	Odor	None.
Specific Gravity	1.69 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water .
Melting Point	48°C.	Evaporation rate	N/A. (Butyl acetate = 1).
Boiling Point/Range	100°C.	Partition Coefficient	N/A. (log P _{ow}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizers, acids.

Shelf life: Fair shelf life, deliquescent, store in a cool dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. **Inhalation:** Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Sodium Thiosulfate: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (231-867-5).

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Starch Solution, 5.0%

MSDS # 717.00

Scholar
Chemistry**Section 1: Product and Company Identification****Starch Solution, 5.0%****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA):** 800-424-9300**CANUTEC (Canada):** 613-424-6666

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Clear to opaque colorless liquid, no odor.*

This material is not considered hazardous.

Target organs: None known.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

HMIS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

Section 3: Composition / Information on Ingredients

Starch, potato (9005-84-9), 5%.

Methylparaben, sodium (5026-62-0), <1%.

Water (7732-18-5), 94-95%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place in sealed bag or container for disposal. Ventilate and wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an dust cartridge. Exposure guidelines: Starch: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	Mixture.	Appearance	Clear to opaque colorless liquid.
Molecular weight	N/A.	Odor	No odor.
Specific Gravity	1.0 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	0.7.	Solubility	Soluble in water.
Melting Point	0 °C.	Evaporation rate	< 1 (<i>Butyl acetate</i> = 1).
Boiling Point/Range	100°C.	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	14.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: N/A

Shelf life: Poor shelf life,

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Starch: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Not considered an environmental hazard.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Listed (232-679-6).

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

Starch, Potato

Scholar
Chemistry

MSDS # 715.00

Section 1: Product and Company Identification**Starch, Potato****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA):** 800-424-9300**CANUTEC (Canada):** 613-424-6666

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White powder, bland odor*

This material is not considered hazardous

Target organs: N/A

HMS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

Section 3: Composition / Information on Ingredients

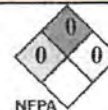
Starch (9005-25-8), >99%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Non-flammable solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Starch: OSHA PEL: 5 mg/m³(total dust)15 mg/m³(respirable fraction), ACGIH: TLV: 10 mg/m³, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	(C ₆ H ₁₀ O ₅) _n	Appearance	White powder.
Molecular weight	N/A.	Odor	Bland odor.
Specific Gravity	1.45 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water.
Melting Point	N/A.	Evaporation rate	N/A. (Butyl acetate = 1).
Boiling Point/Range	N/A.	Partition Coefficient	N/A. (log P _{ow}).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	UEL	N/A.
Autoignition Temp.:	N/A.	LEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: N/A

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath.

Chronic Effects: No information found.

Sensitization: none expected

Starch: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not yet been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not Regulated.

Canada TDG: Not Regulated.

DOT Hazard Class: N/A.

Hazard Class: N/A.

Identification Number: N/A.

UN Number: N/A.

Section 15: Regulatory Information

EINECS: Listed (232-679-6).

WHMIS Canada: Not WHMIS controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Starch, SolubleScholar
Chemistry

MSDS # 716.00

Section 1: Product and Company Identification**Starch, Soluble****Synonyms/General Names:** Corn starch**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*White powder, bland odor*

This material is not considered hazardous.

Target organs: None known.

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

HMIS (0 to 4)

Health	0
Fire Hazard	0
Reactivity	0

Section 3: Composition / Information on Ingredients

Starch (9005-25-8), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Non-flammable solid.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Green****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge. Exposure guidelines: Starch: OSHA PEL: 5 mg/m³(total dust)15 mg/m³(respirable fraction), ACGIH: TLV: 10 mg/m³, STEL: Not Available.

Section 9: Physical and Chemical Properties

Molecular formula	(C ₆ H ₁₀ O ₅) _n	Appearance	White powder.
Molecular weight	N/A.	Odor	Bland odor.
Specific Gravity	1.45 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Soluble in water .
Melting Point	N/A.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	N/A..	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	UEL	N/A.
Autoignition Temp.:	N/A.	LEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and moisture.

Stability: Stable under normal conditions of use and storage.

Incompatibility: N/A

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Starch: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not yet been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not Regulated.

Canada TDG: Not Regulated.

DOT Hazard Class: N/A.

Hazard Class: N/A.

Identification Number: N/A.

UN Number: N/A.

Section 15: Regulatory Information

EINECS: Listed (232-679-6).

WHMIS Canada: Not WHMIS controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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1/23/2009

MSDS # 736.00

SulfurScholar
Chemistry**Section 1: Product and Company Identification****Sulfur****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Bright yellow powder, crystals, rolls, broken lumps; slight odor of rotten eggs.***CAUTION!** Combustible solid, flammable if finely powdered, keep away from all ignition sources.

Target organs: None known.

HMIS (0 to 4)

Health	0
Fire Hazard	2
Reactivity	0

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Sulfur (7704-34-9), >99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 tbsp of activated charcoal mixed with 8 oz water.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

IIIB Flammable solid. When heated to decomposition, emits acrid fumes of sulfur dioxide.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Sweep up spill and place material in a dry container for disposal. See Section 13 for disposal information.

Section 7: Handling and Storage**Red****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Flammable Area [Red Storage] with other flammable materials and away from any strong oxidizers. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with a dust cartridge.

Exposure guidelines: Sulfur: OSHA PEL: N/A and ACGIH TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	S.	Appearance	Yellow powder, crystals, or lumps.
Molecular weight	32.06.	Odor	slight odor of rotten eggs.
Specific Gravity	2.07 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Alcohol, organic solvents.
Melting Point	114°C.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	445°C.	Partition Coefficient	N/A. (<i>log P_{ow}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	207°C (405°F).	LEL	3.3.
Autoignition Temp.:	232°C (450°F).	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Avoid heat and ignition sources. Note: The melting point of this material is lower than the flash point. Use caution when heating.

Stability: Stable under normal conditions of use.

Incompatibility: Strong oxidizing agents, corrosive to copper and steel.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Stinging pain, burns, watering of eyes, inflammation of eyelids and conjunctivitis.

Avoid looking at burning magnesium. *Skin:* Irritation, redness, burns. Powdered metal ignites readily on skin causing burns.

Ingestion: Nausea, vomiting and headache. **Inhalation:** Rapid irregular breathing, headache, burns to mucous membranes.

Chronic Effects: Repeated/prolonged skin contact may cause dryness or rashes.

Sensitization: none expected

Sulfur: LD50 [oral, rat]; 5,000 mg/kg; LC50 [rat]; Not Available; LD50 Dermal [rabbit]; Not Available

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Environmental hazard data not available.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name:	Sulfur.	Canada TDG:	Sulfur.
DOT Hazard Class:	4.1, pg III.	Hazard Class:	4.1, pg III.
Identification Number:	UN1350.	UN Number:	UN1350.

Section 15: Regulatory Information

EINECS: Listed (231-722-6) .

WHMIS Canada: B4: Flammable solid.

TSCA: All components are listed or are exempt. **California Proposition 65:** Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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Sulfuric Acid, 18M

MSDS # 746.00

Scholar
Chemistry**Section 1: Product and Company Identification****Sulfuric Acid, 18M****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA): 800-424-9300****CANUTEC (Canada): 613-424-6666**

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Clear, colorless liquid, very slight odor.***DANGER!** Strongly corrosive to body tissue and toxic by ingestion. When added to water will release large amounts of heat.

Target organs: Respiratory system, eyes, skin, teeth.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

HMIS (0 to 4)

Health	4
Fire Hazard	0
Reactivity	3

Section 3: Composition / Information on Ingredients

Sulfuric Acid (7664-93-9), 93-98%.

Water (7732-18-5), balance.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. *Do not induce vomiting.* Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

When heated to decomposition, emits acrid fumes of sulfur trioxide and sulfur dioxide. Reacts with metals to form explosive hydrogen gas.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**White****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling. Use extreme caution when diluting with water [always add the acid to the water], excessive heat is produced.**Storage:** Store in Corrosive Area [White Storage] with other corrosive items. Store in a dedicated corrosive cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials. Yellow safety color coded cap.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an acid/organic cartridge. Exposure guidelines Sulfuric Acid: OSHA PEL: 1 mg.m³ and ACGIH TLV: 0.2 mg.m³, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	H ₂ SO ₄	Appearance	Clear, colorless liquid.
Molecular weight	98.08.	Odor	Very slight odor.
Specific Gravity	1.83 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	3.4.	Solubility	Completely soluble in water.
Melting Point	11°C.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	337°C.	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	0, very acidic, (corrosive).
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	N/A.	UEL	N/A.

Section 10: Stability and Reactivity

Avoid heat and ignition sources.

Stability: Stable under normal conditions of use and storage.

Incompatibility: Alkalis, amines, anhydrides, combustibles, organics, powdered metals.

Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, damage to cornea, conjunctivitis, loss of vision. *Skin:* Redness, blistering, burning, itching, tissue destruction with slow healing. *Ingestion:* Nausea, vomiting, burning, diarrhea, ulceration, convulsions, shock. *Inhalation:* Coughing, wheezing, shortness of breath, headache, spasm, inflammation and edema of bronchi, pneumonitis.

Chronic Effects: Repeated/prolonged skin contact may cause thickening, blackening or cracking. Repeated eye exposure may cause corneal erosion or loss of vision.

Sensitization: none expected

Sulfuric Acid: LD50 [oral, rabbit]; 2140 mg/kg; LC50 [rat]; 510 mg/m³/2hr ; LD50 eye [rabbit]; 100 mg severe Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer disposal after being neutralized to pH 7.

Section 14: Transport Information

DOT Shipping Name:	Sulfuric Acid.	Canada TDG:	Sulfuric Acid.
DOT Hazard Class:	8, pg II.	Hazard Class:	8, pg II .
Identification Number:	UN1830.	UN Number:	UN1830.

Section 15: Regulatory Information

EINECS: Listed (231-639-5)

WHMIS Canada: E, D1A: Corrosive liquid, Very toxic material.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

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MSDS # 789.00

Wright's Blood BiostainScholar
Chemistry**Section 1: Product and Company Identification****Wright's Blood Biostain****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA):** 800-424-9300**CANUTEC (Canada):** 613-424-6666

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Colorless liquid; alcohol like (strong) odor.***HMIS (0 to 4)**

Health	2
Fire Hazard	3
Reactivity	0

WARNING! Alcohol based solution, flammable liquid and moderate toxic.

Flammable liquid, keep away from all ignition sources.

Target organs: Central nervous system, eyes, liver, kidneys, heart.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Wright's Stain, (68988-92-1), <1%.

Glycerin, (56-81-5) 4-5%.

Methyl alcohol, (67-56-1), 95-96%.

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. **Aspiration hazard.** Rinse mouth with cold water. Give victim 1-2 tbsp of activated charcoal mixed with 8 oz water.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

Flammable liquid. When heated to decomposition, emits acrid fumes

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact. Material is sensitive to static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage**Red****Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in Flammable Area [Red Storage] with other flammable materials and away from any strong oxidizers. Store in a dedicated flammables cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an acid/organic cartridge. Exposure guidelines: Methyl Alcohol: OSHA PEL: 260 mg/m³, ACGIH TLV: 262 mg/m³, STEL: 328mg/m³, Glycerin: OSHA PEL: N/A, ACGIH TLV: N/A, STEL: N/A, Wright's Stain: OSHA PEL: N/A, ACGIH TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	N/A.	Appearance	Colorless liquid.
Molecular weight	N/A.	Odor	Alcohol like (strong) odor.
Specific Gravity	N/A.	Odor Threshold	N/A.
Vapor Density (air=1)	1.11.	Solubility	Soluble.
Melting Point	-97.8°C.	Evaporation rate	>4.6 (<i>Butyl acetate = 1</i>).
Boiling Point/Range	64.7°C.	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	96 mm Hg.	pH	N/A.
Flash Point:	11°C (52°F) CC (methanol).	LEL	7.3%.
Autoignition Temp.:	463.89°C (867°F).	UEL	36%.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use. Avoid heat and ignition sources.
Incompatibility: May react or be incompatible with oxidizing materials.
Shelf life: Indefinite if stored properly.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Stinging pain, watering of eyes, inflammation of eyelids and conjunctivitis. *Skin:* Insensitivity to pain, feel of coolness or cold, skin looks white and feels hard and cold. *Ingestion:* Breath has sweet, organic odor, mental confusion, drowsiness, nausea, vomiting and headache. *Inhalation:* Rapid irregular breathing, headache, fatigue, mental confusion, nausea and vomiting, giddiness and poor judgment, convulsions and death.
Chronic Effects: Repeated/prolonged skin contact may cause dryness or rashes.
Sensitization: none expected
Methyl Alcohol: LD50 [oral, rat]; 5628 mg/kg; LC50 [rat]; 64,000 mg/l (4 hours); LD50 Dermal [rabbit]; 20 mg/24H MOD
Glycerin: LD50 [oral, rat]; 12,600 mg/kg; LC50 [rat]; N/A; LD50 Dermal [rabbit]; 5020 mg/24H MOD
Wright's Stain: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A
Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Ecological impact has not been determined

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name:	Methanol Solution.	Canada TDG:	Methanol Solution.
DOT Hazard Class:	3, pg II.	Hazard Class:	3, pg II.
Identification Number:	UN1230.	UN Number:	UN1230.

Section 15: Regulatory Information

EINECS: Not listed. **WHMIS Canada:** Not WHMIS controlled.
TSCA: All components are listed or are exempt. **California Proposition 65:** Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: January 23, 2009

Disclaimer: Scholar Chemistry and Columbus Chemical Industries, Inc., ("S&C") believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because S&C has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. S&C makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

Zinc Metal

MSDS # 798.00

Scholar
Chemistry**Section 1: Product and Company Identification****Zinc Metal****Synonyms/General Names:** N/A**Product Use:** For educational use only**Manufacturer:** Columbus Chemical Industries, Inc., Columbus, WI 53925.**24 Hour Emergency Information Telephone Numbers****CHEMTREC (USA):** 800-424-9300**CANUTEC (Canada):** 613-424-6666

Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification*Silver metal sticks, pieces, sheet, strips, foil; no odor.***HMIS (0 to 4)**

Health	0
Fire Hazard	0
Reactivity	0

This material is not considered hazardous.

Target organs: None known.

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) if used properly.

Section 3: Composition / Information on Ingredients

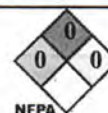
Zinc Metal (7440-66-6), 99%

Section 4: First Aid Measures*Always seek professional medical attention after first aid measures are provided.***Eyes:** Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.**Skin:** Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.**Ingestion:** Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration.**Section 5: Fire Fighting Measures**

When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire.

Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

**Section 6: Accidental Release Measures**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Sweep up spill and place in sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage Green**Handling:** Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skins, eyes, or clothing. Wash hands thoroughly after handling.**Storage:** Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.**Section 8: Exposure Controls / Personal Protection**

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an dust cartridge. Exposure guidelines: Zinc: OSHA PEL: N/A, ACGIH: TLV: N/A, STEL: N/A.

Section 9: Physical and Chemical Properties

Molecular formula	Zn.	Appearance	Silver metal material.
Molecular weight	65.37.	Odor	No odor.
Specific Gravity	7.12 g/mL @ 20°C.	Odor Threshold	N/A.
Vapor Density (air=1)	N/A.	Solubility	Insoluble.
Melting Point	420°C.	Evaporation rate	N/A. (<i>Butyl acetate = 1</i>).
Boiling Point/Range	907°C.	Partition Coefficient	N/A. (<i>log P_{OW}</i>).
Vapor Pressure (20°C)	N/A.	pH	N/A.
Flash Point:	N/A.	LEL	N/A.
Autoignition Temp.:	480°C (896°F).	UEL	N/A.

N/A = Not available or applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use and storage.

Incompatibility: Strong oxidizers, acids, alkalis.

Shelf life: Fair shelf life, store in a cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: *Eyes:* Redness, tearing, itching, burning, conjunctivitis. *Skin:* Redness, itching.

Ingestion: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. *Inhalation:* Irritation of mucous membranes, coughing, wheezing, shortness of breath,

Chronic Effects: No information found.

Sensitization: none expected

Zinc: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A

Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Contains a heavy metal – Toxic to terrestrial and aquatic plants and animals. Do not release to the environment

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name: Not regulated by DOT.

Canada TDG: Not regulated by TDG.

DOT Hazard Class:

Hazard Class:

Identification Number:

UN Number:

Section 15: Regulatory Information

EINECS: Not listed.

WHMIS Canada: Not WHMIS Controlled.

TSCA: All components are listed or are exempt.

California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

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MATERIAL SAFETY DATA SHEET / FICHE SIGNALÉTIQUE

2100199

SECTION I — MATERIAL IDENTIFICATION AND USE / IDENTIFICATION DE LA MATIÈRE ET USAGE

MATERIAL NAME / IDENTIFIÉ — NOM / IDENTIFICATION DE LA MATIÈRE

601.

WELDBOND UNIVERSAL ADHESIVE

MANUFACTURER'S NAME / NOM DU FABRICANT Frank T. Ross & Sons Limited		SUPPLIER'S NAME / NOM DU FOURNISSEUR Same	
STREET ADDRESS / ADRESSE 6550 Lawrence Avenue East		STREET ADDRESS / ADRESSE	
CITY / VILLE Scarborough, Ontario		CITY / VILLE	
POSTAL CODE / CODE POSTAL M1C 4A7		POSTAL CODE / CODE POSTAL	
EMERGENCY PHONE NO. / N° DE TÉLÉPHONE D'URGENCE (416) 282-1107		EMERGENCY PHONE NO. / N° DE TÉLÉPHONE D'URGENCE	
CHEMICAL NAME / DÉNOMINATION CHIMIQUE	CHEMICAL FAMILY / FAMILLE CHIMIQUE ORGANIC POLYMER	CHEMICAL FORMULA / FORMULE CHIMIQUE N/AP	
TRADE NAME AND SYNONYMS / APPELLATION COMMERCIALE ET SYNONYMES Weldbond	MOLECULAR WEIGHT / POIDS MOLÉCULAIRE N/AV	MATERIAL USE / UTILISATION DE LA MATIÈRE ADHESIVE	

SECTION II — HAZARDOUS INGREDIENTS OF MATERIAL / INGRÉDIENTS DANGEREUX DE LA MATIÈRE

HAZARDOUS INGREDIENTS / INGRÉDIENTS DANGEREUX	APPROXIMATE CONCENTRATION % / CONCENTRATION APPROXIMATIVE (%)	CAS, NA OR U.S. NUMBERS / NUMÉRO CAS, NA OU ONU	LD ₅₀ (SPECIFY SPECIES & ROUTE) / DL ₅₀ (PRÉCISER L'ESÈCE ET LA VOIE D'ADMINISTRATION)	LC ₅₀ (SPECIFY SPECIES AND ROUTE) / CL ₅₀ (PRÉCISER L'ESÈCE ET LA VOIE D'ADMINISTRATION)
<p>NONE - NOT A W.H.M.I.S. CONTROLLED PRODUCT</p> <p>CLASSIFIED AS A NON HAZARDOUS PRODUCT</p>				

LD₅₀ AND LC₅₀ DATA ARE EXPRESSED IN MG/KG AND PPM RESPECTIVELY FOR RATS VIA THE ORAL ROUTE AND INHALATION FOR 4 HOURS, UNLESS OTHERWISE SPECIFIED.

LES DONNÉES DL₅₀ ET CL₅₀ SONT EXPRIMÉES EN MG/KG ET PPM RESPECTIVEMENT VIA VOIE ORALE ET INHALATION POUR 4 HEURES POUR RATS SAUF SI SPÉCIFIÉES AILLEURS.

SECTION III — PHYSICAL DATA FOR MATERIAL / CARACTÉRISTIQUES PHYSIQUES DE LA MATIÈRE

PHYSICAL STATE / ÉTAT PHYSIQUE <input type="checkbox"/> GAS/GAZ <input checked="" type="checkbox"/> LIQUID/LIQUIDE <input type="checkbox"/> SOLID/SOLIDE		COLOUR AND APPEARANCE / COULEUR ET APPARENCE MILKY WHITE LIQUID WITH MILD ODOUR	
ODOUR THRESHOLD (P.P.M.) / SEUIL DE L'ODOUR (P.P.M.) N/AP	SPECIFIC GRAVITY / DENSITÉ RELATIVE 1.095	VAPOUR PRESSURE (MM) / TENSION DE VAPEUR (MM) N/AV	VAPOUR DENSITY (AIR DENSITY = 1) / DENSITÉ DE VAPEUR (AIR = 1) LESS THAN 1, WATER
EVAPORATION RATE / TAUX D'ÉVAPORATION SLOW	BOILING POINT (°C) / POINT D'ÉBULLITION (°C) ABOUT 100	FREEZING POINT (°C) / POINT DE CONGÉLATION (°C) N/AV	SOLUBILITY IN WATER (20°C) / SOLUBILITÉ DANS L'EAU (20°C) DILUTABLE
% VOLATILE (BY VOLUME) / % VOLATILITÉ (PAR VOLUME) 48 BY WT.	pH 5.0	COEFFICIENT OF WATER/OIL DISTRIBUTION / COEFFICIENT DE RÉPARTITION EAU/HUILE N/AV	

SECTION IV — FIRE AND EXPLOSION HAZARD OF MATERIAL / RISQUES D'INCENDIE ET D'EXPLOSION DU MATÉRIEL

FLAMMABILITY/INFLAMMABILITÉ YES/OUI NO/NON

IF YES, UNDER WHICH CONDITIONS?/SI OUI, DANS QUELLES CONDITIONS? _____

MEANS OF EXTINCTION/MOYENS D'EXTINCTION

N/AP

SPECIAL PROCEDURES/MARCHE À SUIVRE SPÉCIALE

KEEP CONTAINERS COOL WITH WATER SPRAY. WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR.

MATERIAL CAN SPLATTER ABOVE 100 DEG. C. POLYMER FILM CAN BURN.

FLASHPOINT (°C) AND METHOD/POINT D'ÉCLAIR (°C) ET MÉTHODE DE DÉTERMINATION

N/AP

UPPER EXPLOSION LIMIT (% BY VOLUME)/
SEUIL MAXIMAL D'INFLAMMABILITÉ (% PAR VOLUME)

N/AP

LOWER EXPLOSION LIMIT (% BY VOLUME)/
SEUIL MINIMAL D'INFLAMMABILITÉ (% PAR VOLUME)

N/AP

AUTOIGNITION TEMPERATURE (°C)/TEMPÉRATURE D'AUTO-INFLAMMATION (°C)

N/AV

HAZARDOUS COMBUSTION PRODUCTS/
PRODUITS DE COMBUSTION DANGEREUX

CO, CO₂

EXPLOSION DATA/DONNÉES SUR L'EXPLOSIBILITÉ

SENSITIVITY TO MECHANICAL IMPACT/SENSIBILITÉ AUX CHOCS

NO

SENSITIVITY TO STATIC DISCHARGE/SENSIBILITÉ AUX DÉCHARGES ÉLECTROSTATIQUES

NO

SECTION V — RÉACTIVITY DATA / DONNÉES SUR LA RÉACTIVITÉ

CHEMICAL STABILITY/STABILITÉ CHIMIQUE YES/OUI NO/NON

IF NO, UNDER WHICH CONDITIONS?/SI NON, DANS QUELLES CONDITIONS? _____

INCOMPATIBILITY TO OTHER SUBSTANCES/
INCOMPATIBILITÉ AVEC D'AUTRES SUBSTANCES YES/OUI NO/NON

IF SO, WHICH ONES?/SI OUI, AVEC LESQUELLES? _____

REACTIVITY AND UNDER WHAT CONDITIONS/RÉACTIVITÉ — DANS QUELLES CONDITIONS?

N/AP

HAZARDOUS DECOMPOSITION PRODUCTS/PRODUITS DE DÉCOMPOSITION DANGEREUX

N/AP

SECTION VI — TOXICOLOGICAL PROPERTIES OF MATERIAL / PROPRIÉTÉS TOXICOLOGIQUES DE LA MATIÈRE

ROUTE OF ENTRY/VOIE D'ADMINISTRATION

SKIN CONTACT/CONTACT AVEC LA PEAU

SKIN ABSORPTION/ABSORPTION PAR LA PEAU

EYE CONTACT/CONTACT OCULAIRE

INHALATION ACUTE/INHALATION AIGUË

INHALATION CHRONIC/INHALATION CHRONIQUE

INGESTION

EFFECTS OF ACUTE EXPOSURE TO MATERIAL/EFFETS DE L'EXPOSITION AIGUË À LA MATIÈRE

EFFECTS OF CHRONIC EXPOSURE TO MATERIAL/EFFETS DE L'EXPOSITION CHRONIQUE À LA MATIÈRE

**MATERIAL NAME/IDENTIFIER
NOM/IDENTIFICATION DE LA MATIÈRE**

WELDBOND UNIVERSAL ADHESIVE

I.D. OF MATERIAL (SPECIFY SPECIES & ROUTE)
I.D. DE LA MATIÈRE (PRÉCISER L'ESÈCE ET LA VOIE D'ADMINISTRATION)

I.C. OF MATERIAL (SPECIFY SPECIES & ROUTE)
I.C. DE LA MATIÈRE (PRÉCISER L'ESÈCE ET LA VOIE D'ADMINISTRATION)

N/AV

N/AV

EXPOSURE (LIMITS) LIMITES D'EXPOSITION

N/AV

IRRITANCY OF MATERIAL / PROPRIÉTÉ IRRITANTE DE LA MATIÈRE

N/AV

SENSITIZATION OF MATERIAL SENSIBILISATION À LA MATIÈRE

N/AV

SYNERGISTIC MATERIALS / MATIÈRES SYNERGIQUES

N/AP

CARCINOGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY, MUTAGENICITY / CANCÉROGÉNÉCITÉ, EFFETS NOCIFS SUR LA REPRODUCTION, TERATOGENÉCITÉ, MUTAGÉCITÉ

BASED ON AVAILABLE DATA, NONE EXPECTED

SECTION VII — PREVENTIVES MEASURES / MESURES PRÉVENTIVES

PERSONAL PROTECTIVE EQUIPMENT / MATÉRIEL PERSONNEL DE PROTECTION

GLOVES (SPECIFY) / GANTS (PRÉCISER)

WEAR VINYL OR BUTYL GLOVES

EYE (SPECIFY) / YEUX (PRÉCISER)

WEAR GOGGLES

RESPIRATORY (SPECIFY) / APPAREIL RESPIRATOIRE (PRÉCISER)

N/AP

OTHER (SPECIFY) / AUTRES (PRÉCISER)

N/AP

ENGINEERING CONTROLS (E.G. VENTILATION, ENCLOSED PROCESS, SPECIFY) / MÉCANISMES TECHNIQUES (EX. VENTILATION, OPÉRATION EN MILIEU FERMÉ, PRÉCISER)

PROVIDE ADEQUATE VENTILATION.

LEAK AND SPILL PROCEDURE / MESURES EN CAS DE FUITE OU DE DÉVERSEMENT

**KEEP SPECTATORS AWAY. VENTILATE SPILL AREA. DIKE & SOAK UP SPILL WITH
ABSORBENT, INERT MATERIAL. FLOORS MAY BE SLIPPERY.**

WASTE DISPOSAL / ÉLIMINATION DES RÉSIDUS

SCOOP UP INTO CONTAINERS.

USE GOVERNMENT APPROVED WASTE DISPOSAL COMPANY FOR REMOVAL.

HANDLING PROCEDURES AND EQUIPMENTS / MÉTHODES ET ÉQUIPEMENT POUR LA MANUTENTION

AVOID CONTACT WITH SKIN & EYES. AVOID SPILLAGE.

STORAGE REQUIREMENTS / EXIGENCES D'ENTREPOSAGE

MAX. 49 DEG. C / 120 DEG. F

MIN. 5 DEG. C / 41 DEG. F

STORE IN COOL PLACE. KEEP FROM FREEZING.

SPECIAL SHIPPING INFORMATION / RENSEIGNEMENTS SPÉCIAUX POUR L'EXPÉDITION

KEEP FROM FREEZING.

EYES: FLUSH WITH RUNNING WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION.

SKIN: REMOVE CONTAMINATED CLOTHING. "WASH SKIN WITH SOAP & WATER".

INGESTION: DO NOT INDUCE VOMITING. GET MEDICAL ATTENTION.

ADDITIONAL INFORMATION/RENSEIGNEMENTS SUPPLÉMENTAIRES

W.H.M.I.S. NOT CONTROLLED.

SECTION IX — PREPARATION DATE OF M.S.D.S. / FICHE SIGNALÉTIQUE

PREPARED BY (GROUP, DEPARTMENT, ETC.)/PRÉPARÉ PAR (GROUPE, DÉPARTEMENT, ETC.)

TELEPHONE NUMBER/N° DE TÉLÉPHONE
(416) 282-1107

DATE

Oct. 6, 2005

ADDITIONAL NOTES OR REFERENCES/NOTES ADDITIONNELLES OU RÉFÉRENCES:

WELDBOND HAS AN INDEFINITE SHELF LIFE.

WATER RESISTANT BUT NOT WATERPROOF.

MOST PHYSICAL DATA HAVE BEEN OBTAINED FROM THE FOLLOWING REFERENCE SOURCES:

1. CANADIAN CENTRE FOR OCCUPATIONAL HEALTH & SAFETY (C.C.O.H.S.)
2. SAX, IRVING, DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS.
3. RAW MATERIAL SUPPLIERS M.S.D.S.

N/AV = NOT AVAILABLE

N/AP = NOT APPLICABLE

WARRANTY

There is NO WARRANTY or conditions OF ANY KIND, written or oral, express or implied statutory or otherwise, (INCLUDING NO WARRANTY OF MERCHANTABILITY OR FITNESS OF THE GOODS FOR THE PURPOSE, CONTEMPLATED BY BUYER) concerning the goods sold hereunder or containers in which shipped and none shall be implied by law, EXCEPT THAT THE GOODS SHALL BE IN ACCORDANCE WITH THE SELLER'S SPECIFICATIONS; nor do we give permission, inducement or recommendation to practice any patented invention without a licence

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3112^o

9722038

FABER-CASTELL

MATERIAL SAFETY DATA SHEET

According to 91/155 EC

Date	: 30/07/03	Revision Date	: 19/09/03
Ref No.	: DF001/001	Revision	: 03
Product	: Dust Free Eraser - 187120-2BP, 800070	Page	: 1 of 4

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY / UNDERTAKING

Commercial Product Name	: DUST FREE ERASER 187120-2BP		
Company	: A.W.FABER-CASTELL (M) SDN BHD NO.9, JALAN TP2, TAMAN PERINDUSTRIAN SIME UEP, 47600 SUBANG JAYA, SELANGOR DARUL EHSAN, MALAYSIA		
Telephone No	: 03-80246363	Telefax No. :	03-80247886
Emergency Telephone No.	: 03-80246363 EXT : 311		

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical nature of preparation	: Poly vinyl chloride polymer with Dioctyl phthalate, fillers and pigment
Hazardous components	: NIL

3. HAZARDS IDENTIFICATION

Most important hazards	: NIL
R-phrase (s)	: NIL
Classification	: NIL

4. FIRST-AID MEASURES

General advice	: Practice good hygiene
Inhalation	: Not applicable
Skin contact	: Wash with soap and water
Eye contact	: Wash with water
Ingestion	: Consult physician for advise

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Water, Carbon Dioxide, Foam
Extinguishing media which must not be used for safety reasons	: NIL

MATERIAL SAFETY DATA SHEET

According to 91/155 EC

Date : 30/07/03
Ref No. : DF001/001
Product : Dust Free Eraser - 187120-2BP

Revision Date : 19/09/03
Revision : 03
Page : 2 of 4

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : NIL
Environmental precautions : NIL
Method for cleaning up : Manual or Mechanical

7. HANDLING AND STORAGE

Handling : NIL
Safe handling advice : NIL
Technical measures / Precautions : NIL
Technical measure / Storage conditions : Keep in cool, dry place

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures : NIL

CAS No.	Hazardous Components	%	Classification
	NIL		

Personal protection equipment : NIL
Technical measure / Precautions : NIL
Respiratory protection : NIL
Hand protection : NIL
Eye protection : NIL

MATERIAL SAFETY DATA SHEET	
According to 91/155 EC	
Date	30/07/03
Ref No.	DF001/001
Product	Dust Free Eraser – 187120-2BP
Revision Date	19/09/03
Revision	03
Page	3 of 4
9. PHYSICAL AND CHEMICAL PROPERTIES	
Form	Solid
Colour	White
Odour	Slight vinyl
Melting point / range	N.A
Boiling point / range	N.A
Flash point	N.A
Ignition temperature	300°C
Autoflammability	-
Explosion limits	-
- lower	N.K
- upper	N.K
Vapour pressure (30°C)	N.K
Relative density (30°C)	1.2526 g/cm ³
Water solubility (30°C)	Not soluble
Viscosity	N.K
PH	N.A
10 STABILITY AND REACTIVITY	
Condition to avoid	Store away from direct fire and sunlight
Hazardous decomposition products	Carbon monoxide, higher chain carbon and chlorinated hydrocarbon
11. TOXICOLOGICAL INFORMATION	
Acute toxicity	NIL
Skin contact	NIL
Eye contact	NIL
Sensitization	NIL
Further information	Conforms to European Standard for Safety of Toys (EN 71)
12. ECOLOGICAL INFORMATION	
Not soluble in water, very low degradability in landfill	

MATERIAL SAFETY DATA SHEET

According to 91/155 EC

Date	: 30/07/03	Revision Date	: 19/09/03
Ref No.	: DF001/001	Revision	: 03
Product	: Dust Free Eraser – 187120-2BP	Page	: 4 of 4

13. DISPOSAL INFORMATION

Waste from residue / unused products : According To Local Authority Regulation

Contaminated packaging : Dispose According To Local Authority Regulation

14. TRANSPORT INFORMATION

ADR / RID		Item	UN No
Class	: Not Known		
Characterization	: Not Known		
IMO		Marine pollutant	: Not Known
Class		UN No.	: Not Known
IMDG		Emis	: Not Known
MFAG		Packaging group	: Not Known
Proper shipping name	: ERASER		
ICAO		UN No.	: Not Known
Class		Packaging group	: Not Known
Proper shipping name	: ERASER		

15. REGULATORY INFORMATION**Classification according to EC Directive**

Risk abbreviation according and symbol of product	: N K
Risk determining compound for labeling	: N.K
R-phrased (s)	: NIL
S-phrased (s)	: NIL
Specific hazards	: NIL

16. OTHER INFORMATION

On the basis of data available to us, this product does not cause health problem.

The information provided in this Safety Data Sheet is correct to the best of our knowledge and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

This product conforms to EN 71 (European Standard for Safety of Toys)

Part 1 – Physical Properties

Part 2 – Flammability

Part 3 – Migratory Heavy Metal Content

312°

Material Safety Data Sheet
May be used to comply with
OSHA's Hazard Communication Standard,
29 CFR 1910.1200. Standard must be
consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072



IDENTITY *As Used on Label and List*
Y&C STYLIST #NSP100

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section

Manufacturer's Name YASUTOMO AND COMPANY	Emergency Telephone Number
Address (Number, Street, City, State, and ZIP Code) 490 ECCLES AVENUE SOUTH SAN FRANCISCO, CA 94080	Telephone Number for Information 415/737-8888
	Date Prepared OCTOBER 3, 1994
	Signature of Preparer (optional)

Section I — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity, Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
NO HAZARDOUS INGREDIENTS				
A/P NON-TOXIC LABEL, CONFORMS WITH ASTM D4236.				

Section II — Physical/Chemical Characteristics

Boiling Point N/A	Specific Gravity (H ₂ O = 1) N/A
Vapor Pressure (mm Hg.) N/A	Melting Point N/A
Vapor Density (AIR = 1) N/A	Evaporation Rate (Butyl Acetate = 1) N/A
Solubility in Water INFINITE	
Appearance and Odor COLORED, ODORLESS LIQUID	

Section V — Fire and Explosion Hazard Data

Flash Point (Method Used) N/A	Flammable Limits NOT FLAMMABLE	LEL	UEL
Extinguishing Media N/A			
Special Fire Fighting Procedures NOT REQUIRED			
Unusual Fire and Explosion Hazards NONE			

(Reproduce locally)

OSHA 174, Sept. 1985

CONTINUED REVERSE SIDE

Section V — Reactivity Data

Stability	Unstable		Conditions to Avoid	MEVE
	Stable	X		

Incompatibility (Materials to Avoid) NONE

Hazardous Decomposition or Byproducts NONE

Hazardous Polymerization	May Occur		Conditions to Avoid	NONE
	Will Not Occur	X		

Section VI — Health Hazard Data

Route(s) of Entry: Inhalation? Skin? Ingestion?

Health Hazards (Acute and Chronic) NONE

Carcinogenicity: NONE NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure NONE

Medical Conditions Generally Aggravated by Exposure NONE

Emergency and First Aid Procedures NONE NECESSARY

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled NONE REQUIRED.

Waste Disposal Method NO SPECIAL METHOD REQUIRED

Precautions to Be Taken in Handling and Storing NONE

Other Precautions NONE

Section VIII — Control Measures

Respiratory Protection (Specify Type) NONE NEEDED

Ventilation	Local Exhaust	NONE	Special
	Mechanical (General)		Other

Protective Gloves NONE NEEDED Eye Protection NONE NEEDED

Other Protective Clothing or Equipment NONE NEEDED

Work/Hygiene Practices NO SPECIAL PRECAUTIONS NEEDED

MATERIAL SAFETY DATA SHEET

97-11016 D

PRODUCT NAME: HF 11 WHITE
 PRODUCT CODE: HF 11

1225

SECTION I - MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: AMERICAN ART & CLAY CO., INC.
 ADDRESS: 4717 WEST SIXTEENTH STREET, INDIANAPOLIS, INDIANA 46222
 EMERGENCY PHONE: (317)244-6871 INFORMATION PHONE: (317)244-6871
 DATE REVISED : 09-09-94 NAME OF PREPARER : Laura Jenkins
 REASON REVISED : Update

SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

HAZARDOUS COMPONENTS	CAS NUMBER	OCCUPATIONAL EXPOSURE LIMITS			VAPOR PRESSURE mm Hg @ TEMP
		OSHA PEL	ACGIH TLV	OTHER	
SODIUM POTASSIUM ALUMINUM SILICATE	68476-25-5		0.1mg/m3	@ Silicate	N/A
*ZINC OXIDE	1314-13-2		15.0mg/m3	as dust Zn	N/A
HYDRATED ALUMINUM SILICATE	1332-58-7		10MG/M3	@ Silicate	N/A
SILICON DIOXIDE	14808-60-7		10mg/m3	as Quartz	N/A
HYDRATED ALUMINUM SILICATE MINERAL	1302-78-9	15mg/m3	10mg/m3	TOTAL DUST	N/A

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372. No acute hazardous ingredients. Bears the AP Seal (Non-toxic). Labeling conforms to ASTM D4236. See Section VI. Contains crystalline silica. Producers are responsible in complying with FDA guidelines for lead release from tableware.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: N/A SPECIFIC GRAVITY (H2O=1): LESS THAN 2
 VAPOR DENSITY: HEAVIER THAN AIR EVAPORATION RATE: SLOWER THAN ETHER
 COATING V.O.C. : N/A
 SOLUBILITY IN WATER:
 APPEARANCE AND ODOR: Liquid / Dry

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: N/A METHOD USED:
 FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: N/A UPPER: N/A

EXTINGUISHING MEDIA: NONE KNOWN

SPECIAL FIREFIGHTING PROCEDURES

None. No fire hazard.

UNUSUAL FIRE AND EXPLOSION HAZARDS

None.

===== SECTION V - REACTIVITY DATA =====

STABILITY: STABLE
CONDITIONS TO AVOID
None.

INCOMPATIBILITY (MATERIALS TO AVOID)
None.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS
None.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

===== SECTION VI - HEALTH HAZARD DATA =====

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

May cause damage to the lungs by inhalation of dust or mist. Probable cancer agent by inhalation of dust based on laboratory tests.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Rinse eyes thoroughly with water for 15 minutes. Contact physician.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

None.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Non-toxic. Carries the AP Seal. Labeling conforms to ASTM D-4236. TLV has not been established for the whole product.

HEALTH HAZARDS (ACUTE AND CHRONIC)

May cause damage to the lungs by inhalation of dust or mist. Probable cancer agent by inhalation of dust based on laboratory tests.

CARCINOGENICITY: NTP? NO IARC MONOGRAPHS? YES OSHA REGULATED? NO
Probable cancer agent by inhalation of dust based on laboratory tests.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

Unknown.

EMERGENCY AND FIRST AID PROCEDURES

Contact your local poison control center for further information.

***** SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE *****

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Clean with paper towel and wet sponge. Wash with soap and water.

WASTE DISPOSAL METHOD

Dispose of paper towel in trash and rinse sponge. In manufacturing, dispose in accordance to local, state and federal regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid making dust. Always keep lid tightly on liquid glaze while in storage. Uncovered glazes will dry out.

OTHER PRECAUTIONS

Avoid making dust or mist. When dust present, not for use by unsupervised children.

***** SECTION VIII - CONTROL MEASURES *****

RESPIRATORY PROTECTION

Product not for spray application. When mixing dry glaze, use NIOSH certified mask for dust or mist. When brush or sponge application used not needed.

VENTILATION

When brush or sponge application is used ventilation not needed. For mixing large quantity dry use a locally exhausting hood appropriate for the operation.

PROTECTIVE GLOVES

Not needed.

EYE PROTECTION

Not needed.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Not needed.

WORK/HYGIENIC PRACTICES

Refer to ANACO Safety Manual for further information. Manual available upon request.

***** SECTION IX - DISCLAIMER *****

DISCLAIMER

Information presented herein has been compiled from sources considered to be dependable and is accurate and reliable to the best of our knowledge and belief but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied, except those that may be contained in our written acknowledgement.

Continuation for Section VI subsection Carcinogenicity.

The International Agency for Research on Cancer in its publication "IARC Monographs on the Evaluation of the Carcinogenic Risks to Humans - Silica and some Silicates" - Volume 42, 1987, has concluded that there is sufficient evidence for the carcinogenicity of Crystalline Silica in experimental animals, and limited evidence for the carcinogenicity of crystalline silica in humans, and has, therefore, classified crystalline silica in Group 2A of probable carcinogens.

DEFINITIONS

Silicate Glass Frit: Frits are produced from the chemical reactions which occur during the high temperature smelting of various raw materials to form a molten glass. This glass is rapidly cooled to produce granules or flakes. These may subsequently be milled to produce a powdered frit. Frit (glass) is an essentially insoluble substance.

Pigment: A pigment is formed by high temperature calcination. Therefore, it does not necessarily have any of its component oxides or metals.

American Art Clay Co., Inc./Reward® Ceramic Color Mfrs., Co., is a member of the Art and Craft Material Institute, 100 Boylston St., Suite 1050, Boston MA 02116. Our art and craft items are certified by the Institute to be labeled in accordance with the voluntary chronic hazard labeling standard ASTM D-4236 (American Society for Testing and Materials). This product is appropriately labeled with the following seal:



Meets ANSI
Performance Standards

Products bearing the Certified Products Seal or the AP Approved Product Seal of the Art and Craft Materials Institute, Inc., are certified in a program of toxicological evaluation by a medical expert, subject to review by the Institute's Toxicological Advisory Board to contain no materials in sufficient quantities to be toxic or injurious to humans or to cause acute or chronic health problems.

In addition, products bearing the CP Seal meet specific requirements of materials workmanship, working qualities and color described in the appropriate Product Standard issued by The Art and Craft Materials Institute, Inc. or other recognized standard organization.

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MATERIAL SAFETY DATA SHEET

Tri-Art Manufacturing Incorporated
 4 Harvey Street
 Kingston, Ontario
 K7K 6A9
 Phone (613) 541-0299 Fax (613) 541-1765

SECTION # 1: PRODUCT IDENTIFICATION

Product Identifier: Art Noise Colours, & Mediums
Product Use: Artist Paint
Whmis Classification: Not Controlled.
MSDS Preparation Date: 19 February 2007

SECTION 2: HAZARDS IDENTIFICATION

All Solucryl Colours, & Mediums contain ingredients found in the Whmis Ingredient Disclosure List:

INGREDIENTS	%Wt/Wt	C.A.S.#	TLV	LD50 (g/KG)
Propylene Glycol	0.5 - 2.5	57-55-56	NA	20 (RAT)
Texanol	< 1.0	25265-77-4	NA	< 3.2 (RAT)

In addition, some paints contain product specific compounds that have been identified in the Ingredient Disclosure List:

Products/ Ingredients	%Wt/Wt	C.A.S.#	TLV	LD50 (g/KG)
Solucryl Black				
Carbon Black	1.5 - 2.5	1333-86-4	NA	NA

NOTES: NA = NOT AVAILABLE

SECTION 3: PHYSICAL DATA

Physical State: White or Colored Liquid
Odour: Very Mild Ammonia Odour
Specific Gravity: 1.0 - 1.2 (Water = 1.0)
Boiling Range: 100 - 130 Deg. C

Solubility in Water: Dilutable

SECTION 4: FIRE AND EXPLOSION HAZARD DATA

Flammability Classification:	Not Applicable
Flash Point:	Not Combustible
Flammable Limits (% vol. in air):	LEL: N. App. UEL: N. App.
Extinguishing Media:	Not Applicable.

Special Fire Fighting Procedures: Material in paint can splatter above 100C. Dried paint film can burn. If this should occur use carbon dioxide, foam, dry chemical or water to extinguish. Wear full-body protective clothing and self-contained breathing apparatus. Do not direct extinguishing media directly into center of burning pools.

SECTION 5: REACTIVITY DATA

Stability: Stable

Incompatibility: Maintain storage between 0 and 30 °C. Avoid strong oxidizing and reducing agents; strong acids and bases. Keep product away from open flame.

Conditions to Avoid: Keep product from freezing or excessive heat.

Hazardous Decomposition Products: Low molecular weight hydrocarbons, CO, CO₂, NO_x. All are toxic.

SECTION 6: HEALTH HAZARDS

Inhalation: Pigment powders in this paint are not in the form of respirable dusts, hence they do not pose the hazards associated with the inhalation of fine mineral particles.

Eye Contact: Prolonged or repeated contact may result in eye irritation.

Skin Contact: Prolonged or repeated contact may result in skin irritation.

Ingestion: May cause irritation to the gastrointestinal system.

Additional Exposure Information: Existing skin, eye, or respiratory conditions may be aggravated by exposure.

Carcinogenicity: Products are not carcinogens.

SECTION 7: EXPOSURE CONTROL/PERSONAL PROTECTION

Respiratory Protection: If spray painting, wear appropriate government approved mask. Ensure room has adequate ventilation.

Ventilation: Make sure room has adequate ventilation (i.e. window fan).

Eye Protection: Wear safety glasses

Skin Protection: Skin protection is not normally required. If skin irritation develops, wear rubber gloves.

SECTION 8: FIRST AID PROCEDURES

Eye Contact: Flush with clean water for 15 minutes. See a physician.

Skin Contact: Wash hands with soap and water. If irritation develops see a physician.

Inhalation: Remove subject to fresh air.

Ingestion: May cause abdominal pain. Do not induce vomiting. Product is not considered toxic in small amounts. Call a physician. Ingestion of large amounts may require medical attention.

SECTION 9: HANDLING AND STORAGE PRECAUTIONS

Storage of Paint: Keep from freezing. Keep containers closed.

Spill/ Leak Procedure: Contain spilled paint and clean up.

Paint Disposal:

Dispose of paint soaked rags and empty containers in accordance with regulatory laws.

SECTION 10: OTHER INFORMATION

While Tri-Art Mfg. Inc. has prepared this MSDS from a knowledge of the products' components and from supplier information, there is no warranty with respect to the accuracy of this data. We assume no legal responsibility. All data is offered for your consideration, investigation and verification.

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MATERIAL SAFETY DATA SHEET

Product Name: Suspendaid
Manufacturer's Name: American Art Clay Co. Inc.
6060 Guion Road
Indianapolis, IN 46254
Product Code: Suspendaid

Information Number: (800) 374-1600
Emergency Number: (800) 374-1600

Section I - Product Identification

Product Name: Suspendaid
AMACO Suspendaid
Product Class: Ceramic Specialty
Product Size: 16 oz

Section II - Hazardous Ingredients

Reportable components	CAS#	Vapor Pressure Mm Hg @ Temp	Weight Percent
No reportable quantities of hazardous ingredients.			

Carries the "AP" Seal. Labeling conforms to ASTM D4236.

Section III - Physical / Chemical Characteristics

Boiling Range: NA
Vapor Density: Heavier than air.
Coating V.O.C.: NA
Appearance and Odor: Liquid
Specific Gravity(H2O=1): Less than 2
Evaporation Rate: NA
Material V.O.C.: NA

Section IV - Fire and Explosion Hazard Data

Flash Point: NA
Flammable Limits in Air by Volume: NA - Lower NA - Upper
Extinguishing Media: NA
Special Firefighting Procedures: No fire hazard.
Unusual Fire and Explosion Hazards: No fire hazard.
Method Used: NA

Section V - Reactivity Data

Stability: Stable
Incompatibility (Materials to Avoid): None
Hazardous Decomposition or Byproducts: Will not occur.
Hazardous Polymerization: Will not occur.
Conditions to Avoid: None



1 Ecolab Place
St. Paul, MN 55102

08/24/2018

Supplier's Information

Products YAMHILL CARLTON HIGH SCH 010573906

DELIMER 4X1 GAL - 8000008
PF FLR CLNR DEGR 4X1GL - 8000374

YAMHILL CARLTON HIGH SCH
275 N MAPLE ST
YAMHILL OR 97148-7601

201808240334-360
010573906

Dear Customer:

Enclosed are new and revised Safety Data Sheets (SDS) for the above listed products which you recently ordered.

Our safety documents are updated as often as new data is available. Please replace the old versions with the most recent SDSs enclosed.

If you distribute a product listed above to another place, you may be required to provide a copy of the SDS to that location.

SAFETY REMINDER

- Use products ONLY for recommended uses.
- NEVER transfer product to unlabeled containers.
- NEVER take product home – workplace use only.

If you are not directly responsible for the use of the SDSs or the information they contain, we ask that you forward them to the appropriate person(s) in your organization. If you require further information regarding these SDSs, please call:

Customer Service: 1-866-444-7450

Electronic versions of product SDSs are available at www.ecolab.com.

SAFETY DATA SHEET

Delimer

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Delimer
 Other means of identification : Not applicable
 Recommended use : Delimer
 Restrictions on use : Reserved for industrial and professional use.
 Product dilution information : 0.8 % - 4.0 %
 Company : PureForce
 370 N. Wabasha Street
 St. Paul, Minnesota USA 55102
 1-866-444-7450
 Emergency health information : 1-800-328-0026 (US/Canada), 1-651-222-5352 (outside US)
 Issuing date : 09/15/2016

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Product AS SOLD
 Skin corrosion : Category 1A
 Serious eye damage : Category 1

Product AT USE DILUTION

Skin corrosion : Category 1A
 Serious eye damage : Category 1

GHS label elements

Product AS SOLD
 Hazard pictograms



Signal Word : Danger
 Hazard Statements : Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**
 Wash skin thoroughly after handling. Wear protective gloves/protective clothing/ eye protection/ face protection.
Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before reuse.

SAFETY DATA SHEET

Delimer

Storage:
 Store locked up.
Disposal:
 Dispose of contents/ container to an approved waste disposal plant.



Product AT USE DILUTION
 Hazard pictograms

Signal Word : Danger
 Hazard Statements : Causes severe skin burns and eye damage.
 Precautionary Statements : **Prevention:**
 Wash skin thoroughly after handling. Wear protective gloves/protective clothing/ eye protection/ face protection.
Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before reuse.

Storage:
 Store locked up.

Disposal:
 Dispose of contents/ container to an approved waste disposal plant.

Product AS SOLD

Other hazards : Do not mix with bleach or other chlorinated products – will cause chlorine gas.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product AS SOLD
 Pure substance/mixture : Mixture

Chemical name
 nitric acid
 citric acid

CAS-No.
 7697-37-2
 77-92-9
Concentration (%)
 10 - 30
 1 - 5

Product AT USE DILUTION

No hazardous ingredients

SECTION 4. FIRST AID MEASURES

Product AS SOLD

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean

SAFETY DATA SHEET

Delimer

- shoes before reuse. Get medical attention immediately.
- : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
 - : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.
 - : If potential for exposure exists refer to Section 8 for specific personal protective equipment.
 - : Treat symptomatically.
 - : See Section 11 for more detailed information on health effects and symptoms.
- Product AT USE DILUTION**
- In case of eye contact
- : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
- In case of skin contact
- : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- If swallowed
- : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- If inhaled
- : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

SECTION 5. FIRE-FIGHTING MEASURES

- Product AS SOLD**
- Suitable extinguishing media
- : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media
- : None known.
- Specific hazards during fire fighting
- : Not flammable or combustible.
- Hazardous combustion products
- : Decomposition products may include the following materials:
 - Carbon oxides
 - Nitrogen oxides (NOx)
 - Sulfur oxides
 - Oxides of phosphorus
- Special protective equipment for fire-fighters
- : Use personal protective equipment.
- Specific extinguishing methods
- : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

917352-03

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SAFETY DATA SHEET

Delimer

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Product AS SOLD**
- Personal precautions, protective equipment and emergency procedures
- : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions
- : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up
- : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.
- Product AT USE DILUTION**
- Personal precautions, protective equipment and emergency procedures
- : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions
- : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up
- : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

SECTION 7. HANDLING AND STORAGE

- Product AS SOLD**
- Advice on safe handling
- : Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not mix with bleach or other chlorinated products – will cause chlorine gas.
- Conditions for safe storage
- : Keep away from strong bases. Keep out of reach of children. Store in suitable labeled containers.
- Storage temperature
- : 0 °C to 50 °C
- Product AT USE DILUTION**
- Advice on safe handling
- : Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Use only with adequate ventilation. Wash hands thoroughly after handling.
- Conditions for safe storage
- : Keep out of reach of children. Store in suitable labeled containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

917352-03

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SAFETY DATA SHEET

Delimer

Product AS SOLD
Ingredients with workplace control parameters

Ingredients	CAS-No.	Form of exposure	Permissible concentration	Basis
nitric acid	7697-37-2	TWA	2 ppm	ACGIH
		STEL	4 ppm	ACGIH
		STEL	4 ppm	NIOSH REL
		TWA	10 mg/m ³	NIOSH REL
		TWA	2 ppm	NIOSH REL
		TWA	5 mg/m ³	OSHA Z1

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal protective equipment

- Eye protection : Wear eye protection/ face protection.
- Hand protection : Wear the following personal protective equipment: Standard glove type. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
- Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Product AT USE DILUTION

- Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.
- Personal protective equipment**
- Eye protection : Wear eye protection/ face protection.
- Hand protection : Wear the following personal protective equipment: Standard glove type. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
- Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

SAFETY DATA SHEET

Delimer

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Product AS SOLD
 Appearance : Aqueous solution
 Color : clear, green
 Odor : odorless
 pH : 0.5, 100 %
 Flash point : Not applicable
 Odor Threshold : No data available
 Melting point/freezing point : No data available
 Initial boiling point and boiling range : 100 °C
 Evaporation rate : No data available
 Flammability (solid, gas) : No data available
 Upper explosion limit : No data available
 Lower explosion limit : No data available
 Vapor pressure : No data available
 Relative vapor density : No data available
 Relative density : 1.04 - 1.12
 Water solubility : No data available
 Solubility in other solvents : No data available
 Partition coefficient: n-octanol/water : No data available
 Autoignition temperature : No data available
 Thermal decomposition : No data available
 Viscosity, kinematic : No data available
 Explosive properties : No data available
 Oxidizing properties : The substance or mixture is not classified as oxidizing.
 Molecular weight : No data available
 VOC : No data available

Product AT USE DILUTION
 liquid
 green
 odorless
 1.21 - 2.06

SECTION 10. STABILITY AND REACTIVITY

Product AS SOLD
 Chemical stability : Stable under normal conditions.
 Possibility of hazardous reactions : Do not mix with bleach or other chlorinated products – will cause chlorine gas.
 Conditions to avoid : None known.
 Incompatible materials : Bases
 Hazardous decomposition products : Decomposition products may include the following materials: Carbon oxides Nitrogen oxides (NOx)

SAFETY DATA SHEET

Delimer

Sulfur oxides
Oxides of phosphorus

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Potential Health Effects

Product AS SOLD
Eyes : Causes serious eye damage.

Skin : Causes severe skin burns.

Ingestion : Causes digestive tract burns.

Inhalation : May cause nose, throat, and lung irritation.

Chronic Exposure : Health injuries are not known or expected under normal use.

Product AT USE DILUTION

Eyes : Causes serious eye damage.

Skin : Causes severe skin burns.

Ingestion : Causes digestive tract burns.

Inhalation : May cause nose, throat, and lung irritation.

Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

Product AS SOLD

Eye contact : Redness, Pain, Corrosion

Skin contact : Redness, Pain, Corrosion

Ingestion : Corrosion, Abdominal pain

Inhalation : Respiratory irritation, Cough

Product AT USE DILUTION

Eye contact : Redness, Pain, Corrosion

Skin contact : Redness, Pain, Corrosion

Ingestion : Corrosion, Abdominal pain

Inhalation : Respiratory irritation, Cough

Toxicity

Product AS SOLD

Product

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg

Acute inhalation toxicity : No data available

SAFETY DATA SHEET

Delimer

Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg

Skin corrosion/irritation : No data available

Serious eye damage/eye irritation : No data available

Respiratory or skin sensitization : No data available

Carcinogenicity : No data available

Reproductive effects : No data available

Germ cell mutagenicity : No data available

Teratogenicity : No data available

STOT-single exposure : No data available

STOT-repeated exposure : No data available

Aspiration toxicity : No data available

SECTION 12. ECOLOGICAL INFORMATION

Product AS SOLD

Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

Product

Toxicity to fish : No data available

Toxicity to daphnia and other aquatic invertebrates : No data available

Toxicity to algae : No data available

Ingredients

Toxicity to fish : nitric acid
96 h LC50: 72 mg/l

citric acid

96 h LC50 Fish: > 100 mg/l

Persistence and degradability

Product AS SOLD

Readily biodegradable.

Product AT USE DILUTION

Readily biodegradable.

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SAFETY DATA SHEET

Delimer

SECTION 13. DISPOSAL CONSIDERATIONS

- Product AS SOLD**
Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
- Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not reuse empty containers. Dispose of in accordance with local, state, and federal regulations.
- RCRA - Resource Conservation and Recovery Authorization Act Hazardous waste : D002 (Corrosive)

Product AT USE DILUTION

- Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
- Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not reuse empty containers. Dispose of in accordance with local, state, and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Product AS SOLD

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

- UN number : 2031
Description of the goods : Nitric acid
Class : 8
Packing group : II
Environmentally hazardous : no

Sea transport (IMDG/IMO)

- UN number : 2031
Description of the goods : NITRIC ACID
Class : 8
Packing group : II
Marine pollutant : no

SECTION 15. REGULATORY INFORMATION

Product AS SOLD

EP CRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
nitric acid	7697-37-2	1000	9950

SAFETY DATA SHEET

Delimer

SARA 304 Extremely Hazardous Substances Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
nitric acid	7697-37-2	1000	9950

SARA 311/312 Hazards : Acute Health Hazard

SARA 302 : The following components are subject to reporting levels established by SARA Title III, Section 302:

nitric acid : 7697-37-2 10.05 %

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

nitric acid : 7697-37-2 10.05 %

California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

United States TSCA Inventory :
On TSCA Inventory

Canadian Domestic Substances List (DSL) :
This product contains one or several components listed in the Canadian NDSL.

Australia Inventory of Chemical Substances (AICS) :
On the inventory, or in compliance with the inventory

New Zealand Inventory of Chemical Substances :
On the inventory, or in compliance with the inventory

Japan. ENCS - Existing and New Chemical Substances Inventory :
On the inventory, or in compliance with the inventory

Japan. ISHL - Inventory of Chemical Substances (METI) :
On the inventory, or in compliance with the inventory

Korea. Korean Existing Chemicals Inventory (KECI) :
On the inventory, or in compliance with the inventory

Philippines Inventory of Chemicals and Chemical Substances (PICCS) :
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances in China (IECSC) :
On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

Product AS SOLD

SAFETY DATA SHEET

Delimer

NFPA:

Flammability



Instability

Health

Special hazard.

HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Product AT USE DILUTION

NFPA:

Flammability



Instability

Health

Special hazard.

HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Issuing date : 09/15/2016
Version : 1.1
Prepared by : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



UTILITY SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Manufacturer: UTILITY 700 Main Street Westbury, NY 11590 Telephone: 1-516-997-6300 Fax: 1-516-997-6345 Web Site: www.UtilityChemicals.com E-mail: info@UtilityChemical.com	For any transportation or medical chemical emergencies call: <p style="text-align: center;">INFOTRAC (800) 535-5053</p> <p style="text-align: center;">24 hours per day - 7 days a week</p>
Product Name: Sexauer Mule-Kick Non-Acid Drain Cleaner	Recommended Use: For clearing drains of hair, grease, paper, lint and organic matter.

SECTION 2 - HAZARD(S) IDENTIFICATION

<p style="text-align: center;">Label</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> Corrosive </div> <div style="text-align: center;"> Poison </div> </div>	<p style="text-align: center;">NFPA</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>HEALTH HAZARD</p> <p>4 Deadly 3 Extreme Danger 2 Hazardous 1 Slightly Hazardous 0 Normal Material</p> </div> <div style="width: 45%;"> <p>FIRE HAZARD Flash Points</p> <p>4 Below 73°F (Boiling pt. below 100°F) 3 Below 73°F (Boiling pt. at/above 100°F) and/or at/above 73°F - not exceeding 100°F 2 Above 100°F, Not exceeding 200°F 1 Above 200°F 0 Will not burn</p> </div> </div> <div style="text-align: center; margin: 10px 0;"> </div> <div style="width: 45%;"> <p>SPECIFIC HAZARD</p> <p>Oxidizer OX Use NO WATER W Simple Asphyxiant SA</p> </div> <div style="width: 45%;"> <p>INSTABILITY</p> <p>4 May detonate 3 Shock and heat may detonate 2 Violent chemical changes 1 Unstable if heated 0 Stable</p> </div>	<p style="text-align: center;">HMIS</p> <table border="1" style="width: 100%;"> <tr> <td style="text-align: right;">HEALTH</td> <td style="text-align: center;">3</td> <td rowspan="3" style="vertical-align: top;"> 0 Minimal Hazard 1 Slight Hazard 2 Moderate Hazard 3 Serious Hazard 4 Severe Hazard </td> </tr> <tr> <td style="text-align: right;">FLAMMABILITY</td> <td style="text-align: center;">0</td> </tr> <tr> <td style="text-align: right;">REACTIVITY</td> <td style="text-align: center;">1</td> </tr> </table> <p style="text-align: center; margin-top: 10px;"> PPE H </p>	HEALTH	3	0 Minimal Hazard 1 Slight Hazard 2 Moderate Hazard 3 Serious Hazard 4 Severe Hazard	FLAMMABILITY	0	REACTIVITY	1
HEALTH	3	0 Minimal Hazard 1 Slight Hazard 2 Moderate Hazard 3 Serious Hazard 4 Severe Hazard							
FLAMMABILITY	0								
REACTIVITY	1								
<p style="text-align: center;">Health</p> <p>Acute Toxicity: Cat. 5 Skin Corrosion: Cat. 1 Eye Irritation: Cat. 2B Skin Sensitization: NO</p>	<p style="text-align: center;">Environmental</p> <p>Acute Toxicity: N/A Chronic Toxicity: N/A</p>	<p style="text-align: center;">Physical</p> <p>Flammability: N/A Other: N/A</p>							
<p style="text-align: center;">Hazardous Statement</p> <p>Poison! Causes severe burns. Harmful or fatal if swallowed.</p>		<p style="text-align: center;">Precautionary Statement</p> <p>Avoid contact with skin and eyes. Keep out of reach of children. Do not allow to be taken internally. Protect face (especially eyes) and other parts of body when using.</p>							

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Chemicals	CAS #	EINECS#	Approx %
POTASSIUM HYDROXIDE	1310-58-3	215-181-3	5-50%
SODIUM HYDROXIDE	1310-72-2	215-185-5	5-50%

*Title III Section 313 Supplier Notification: This product contains toxic chemicals subject to the reporting requirement of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and of 40CFR372. This information must be included in all MSDS's that are copied and distributed for this material.

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If you have any questions, please contact Customer Service at 866-412-6726

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MATERIAL SAFETY DATA SHEET

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Ontario	Canada Quebec	NIOSH	OSHA
Potassium hydroxide (1310-58-3)	Ceilings	2 mg/m3 Ceiling	2 mg/m3 Ceiling	2 mg/m3 Ceiling	2 mg/m3 Ceiling	Not established
Sodium hydroxide (1310-73-2)	Ceilings	2 mg/m3 Ceiling	2 mg/m3 Ceiling	2 mg/m3 Ceiling	2 mg/m3 Ceiling	Not established
	TWAs	Not established	Not established	Not established	Not established	2 mg/m3 TWA
Exposure Limits/Guidelines (Con't.)						
	Result	United Kingdom				
Potassium hydroxide (1310-58-3)	STELs	2 mg/m3 STEL				
Sodium hydroxide (1310-73-2)	STELs	2 mg/m3 STEL				

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear chemical splash safety goggles.

Hands

- Wear protective gloves impervious to this material.

Skin/Body

- Wear protective clothing impervious to this material.

General Industrial Hygiene Considerations

- Provide readily accessible eye wash stations & safety showers. Handle in accordance with good industrial hygiene and safety practice. Do not get in eyes or on skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, using tobacco or using the toilet. Destroy contaminated leather articles. Launder or discard contaminated clothing.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste. Avoid release to the environment.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene
 NIOSH = National Institute of Occupational Safety and Health
 OSHA = Occupational Safety and Health Administration
 TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Clear liquid with no odor.
Color	Clear	Odor	Odorless
Odor Threshold	Data lacking		

MATERIAL SAFETY DATA SHEET

SECTION 4 - FIRST-AID MEASURES

Inhalation: Remove from further exposure. Keep warm and at rest. If not breathing, give artificial respiration. If breathing is difficult, trained personnel should administer oxygen. Seek immediate medical attention.

Skin: Remove contaminated clothing including shoes and immediately wash affected area with plenty of soap and water. Seek immediate medical attention. Wash contaminated clothing and shoes before reuse.

Eyes: Immediately flush eyes with plenty of water for two to three minutes. Remove any contact lenses and continue flushing for 15 minutes. Get immediate medical attention.

Ingestion: Wash out mouth with water, keep at rest. Seek immediate medical attention. DO NOT induce vomiting unless directed to do so by medical personnel.

SECTION 5 - FIRE-FIGHTING MEASURES

<u>Extinguishing Media</u>	<u>Specific Hazards</u>	<u>Protective Equipment</u>								
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><u>Suitable</u></td> <td style="width: 50%;"><u>Unsuitable</u></td> </tr> <tr> <td>Water Spray</td> <td>-----</td> </tr> <tr> <td>Dry Chemical</td> <td></td> </tr> <tr> <td>Standard Agents</td> <td></td> </tr> </table>	<u>Suitable</u>	<u>Unsuitable</u>	Water Spray	-----	Dry Chemical		Standard Agents		Sodium Hydroxide will react with metals such as aluminum, tin, and zinc to generate flammable and explosive hydrogen gas.	Self-contained breathing apparatus ((SCBA), MSHA/NIOSH). Full protective gear.
<u>Suitable</u>	<u>Unsuitable</u>									
Water Spray	-----									
Dry Chemical										
Standard Agents										

Special Firefighting Procedures

Avoid direct contact of Sodium Hydroxide with water, as this can produce a violent exothermic reaction. Use water to cool containers exposed to fire. Contact with reactive metals may result in the generation of flammable gas.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions: None.

Protective Equipment: None.

Emergency Procedures: None.

Environmental Precautions: Keep out of water sources and sewers.

Methods for Cleaning-Up: If possible, dike spill and mop or pump into plastic or lacquer lined drums, label "Corrosive" and store away from heat and out of direct sunlight. Residual may be neutralized with citric acid.

Other Precautions: None.

SECTION 7 - HANDLING AND STORAGE

<u>Handling</u>	<u>Storage</u>
Wear appropriate personal protective equipment when handling Sodium Hydroxide and Potassium Hydroxide.	Store in a dry place in accordance with 29 CFR 1910.106 and away from acids, metals, explosives, organic compounds and flammable materials. Do not store in containers made from tin, aluminum, zinc and alloys containing these metals.

MATERIAL SAFETY DATA SHEET

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:	None.
Persistence & Degradability:	None.
Bioaccumulative Potential:	None.
Mobility in Soil:	None.
Other Adverse Effects:	None.

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

SECTION 14 - TRANSPORTATION INFORMATION

Shipping Information

Shipping Name:	Sodium Hydroxide, Solution
Hazardous Class:	8
I.D. Number:	UN1824
Packing Group:	II
Label Required:	Corrosive
Marine Pollutant:	No

Exception: This product, when packaged and distributed in a quantity and form intended or suitable for retail sale and designed for consumption by individuals for their personal care or household use purposes, may qualify as a "Consumer Commodity". As such, it can then be exempted from certain labeling, packaging and shipping requirements.

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

- Acute

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

SECTION 16 - OTHER INFORMATION

Disclaimer :

Revision Date: 2016/11/22

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act and shall not be used for any other purpose. UTILITY urges the customers receiving this Safety Data Sheet to study it carefully to become aware of the hazards, if any, of the product involved. In the interest of safety, you should notify your employees, agents, and contractors of the information on the sheets. The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, UTILITY cannot give any guarantees regarding information from other sources, and expressly does not make warranties, nor assumes any liability for its use. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified.

MATERIAL SAFETY DATA SHEET

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES continued

General Properties

Boiling Point	Data lacking	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	14
Specific Gravity/Relative Density	1.445 to 1.53 Water=1	Water Solubility	Miscible
Solvent Solubility	Data lacking	Viscosity	Data lacking
Explosive Properties	Data lacking	Oxidizing Properties:	Data lacking

Volatility

Vapor Pressure	17.5 mmHg (torr)	Vapor Density	0.6 Air=1
Evaporation Rate	Data lacking		

Flammability

Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Data lacking		

Environmental

Octanol/Water Partition coefficient	Data lacking		
-------------------------------------	--------------	--	--

9.2 Other Information

- No additional physical and chemical parameters noted.

SECTION 10 - STABILITY AND REACTIVITY

Stability

Stable Unstable

Hazardous Polymerization

May Occur Will Not Occur

Conditions To Avoid

Mixing with water, acid, or incompatible materials can cause splattering and release of large amounts of heat.

Incompatible Materials

Acids, aluminum, tin, zinc, and alloys containing these metals, iron, copper, wool, leather, clothing materials, organic chemicals such as nitrocarbons and halogenated hydrocarbons, carbohydrates, phosphorous, explosives and organic peroxides.

Hazardous Decomposition Products

Carbon monoxide with carbohydrates, hydrogen with aluminum, tin and zinc.

SECTION 11 - TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation
 Skin Contact
 Eye Contact
 Ingestion

Symptoms/Effects

Causes respiratory irritation which may develop into serious lung injury depending upon the degree of exposure.
 Corrosive. Can cause severe skin burns. Irritation may not be immediately painful. Greater exposure results in severe burns with scarring.
 Corrosive. Can cause severe eye burns. Contact results in immediate pain and can cause permanent eye damage including blindness.
 Corrosive. Contact will cause severe burns of the mouth, throat and stomach.

Long-Term Effects: N/A

Toxicity

Hazardous Components
 POTASSIUM HYDROXIDE
 SODIUM HYDROXIDE

LD₅₀
 Oral: 365 mg/kg (rat)
 Oral: 500 mg/kg (rabbit)

LC₅₀
 N/A
 N/A

Material Safety Data Sheet Commercial Product
--

1. PRODUCT AND COMPANY IDENTIFICATION

Product name

AgriSolutions Cornerstone® Plus Herbicide

EPA Reg. No.

524-454-1381

Product use

Herbicide

Chemical name

Not applicable.

Synonyms

None.

Company

Winfield Solutions, LLC, P.O. Box 64589, St. Paul, MN 55164-0589

Please contact your local Winfield Solutions dealer or supplier for information regarding this product.

FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE, EXPOSURE, OR ACCIDENT Call Chemtrec – Day or Night: 1-800-424-9300 toll free in the continental U.S., Puerto Rico, Canada, or Virgin Islands.

FOR MEDICAL EMERGENCY – Call 1-877-424-7452

2. HAZARDS IDENTIFICATION

Emergency overview

Appearance and odour (colour/form/odour): Amber - Brown / Liquid / Slight

WARNING!

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY

HARMFUL IF SWALLOWED

HARMFUL IF INHALED

Potential health effects**Likely routes of exposure**

Skin contact, eye contact, inhalation

Eye contact, short term

May cause temporary eye irritation.

Skin contact, short term

Not expected to produce significant adverse effects when recommended use instructions are followed.

Inhalation, short term

Harmful by inhalation.

Single ingestion

Harmful if swallowed.

Causes gastrointestinal tract irritation.

Refer to section 11 for toxicological and section 12 for environmental information.

OSHA Status

This product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Active ingredient

Isopropylamine salt of N-(phosphonomethyl)glycine; {Isopropylamine salt of glyphosate}

Composition

COMPONENT	CAS No.	% by weight (approximate)
Isopropylamine salt of glyphosate	38641-94-0	41
Other ingredients		59

Trade secret composition.

4. FIRST AID MEASURES

Use personal protection recommended in section 8.

Eye contact

If in eyes, hold eye open and rinse slowly and gently for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

Skin contact

Immediately wash affected skin with plenty of water.
Take off contaminated clothing, wristwatch, jewellery.
Wash clothes and clean shoes before re-use.

Inhalation

If inhaled, move person to fresh air. If person is not breathing, call emergency number or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.

Ingestion

Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison center or doctor. Do not give anything by mouth to an unconscious person.

Advice to doctors

This product is not an inhibitor of cholinesterase.

Antidote

Treatment with atropine and oximes is not indicated.

5. FIRE-FIGHTING MEASURES**Flash point**

None.

Unusual fire and explosion hazards

Minimise use of water to prevent environmental contamination.
Environmental precautions: see section 6.

Hazardous products of combustion

Carbon monoxide (CO), nitrogen oxides (NO_x), phosphorus oxides (P_xO_y)

Fire fighting equipment

Self-contained breathing apparatus.
Equipment should be thoroughly decontaminated after use.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Use personal protection recommended in section 8.

Environmental precautions**SMALL QUANTITIES:**

Low environmental hazard.

LARGE QUANTITIES:

Minimise spread.

Contain spillage with sand bags or other means.

Keep out of drains, sewers, ditches and water ways.

Methods for cleaning up**SMALL QUANTITIES:**

Flush spill area with water.

LARGE QUANTITIES:

Absorb in earth, sand or absorbent material.

Dig up heavily contaminated soil.

Collect in containers for disposal.

Refer to section 7 for types of containers.

Flush residues with small quantities of water.

Minimise use of water to prevent environmental contamination.

Refer to section 13 for disposal of spilled material.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

7. HANDLING AND STORAGE

Good industrial practice in housekeeping and personal hygiene should be followed.

Handling

Avoid contact with eyes, skin and clothing.

Avoid breathing vapour or mist.

Wash hands thoroughly after handling or contact.

Wash contaminated clothing before re-use.

Thoroughly clean equipment after use.

Do not contaminate drains, sewers and water ways when disposing of equipment rinse water.

Emptied containers retain vapour and product residue.

Observe all labelled safeguards until container is cleaned, reconditioned or destroyed.

Storage

Compatible materials for storage: stainless steel, fibreglass, plastic, glass lining

Incompatible materials for storage: galvanised steel, unlined mild steel, see section 10.

Keep out of reach of children.

Keep away from food, drink and animal feed.

Keep only in the original container.

Minimum shelf life: 5 years.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Airborne exposure limits**

Components	Exposure Guidelines
Isopropylamine salt of glyphosate	No specific occupational exposure limit has been established.
Other ingredients	No specific occupational exposure limit has been established.

Engineering controls

Have eye wash facilities immediately available at locations where eye contact can occur.

Eye protection

If there is potential for contact:
Wear chemical goggles.
Applicators and other handlers must wear eye protection.

Skin protection

No special requirement when used as recommended.
If repeated or prolonged contact:
Wear chemical resistant gloves.

Respiratory protection

If airborne exposure is excessive:
Wear respirator.
Full facepiece/hood/helmet respirator replaces need for chemical goggles.
Respiratory protection programs must comply with all local/regional/national regulations.

When recommended, consult manufacturer of personal protective equipment for the appropriate type of equipment for a given application.

9. PHYSICAL AND CHEMICAL PROPERTIES

These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

Colour/colour range:	Amber - Brown
Odour:	Slight
Form:	Liquid
Physical form changes (melting, boiling, etc.):	
Melting point:	No data.
Boiling point:	No data.
Flash point:	None.
Explosive properties:	No data.
Auto ignition temperature:	No data.
Specific gravity:	1.1655 20 °C / 20 °C
Vapour pressure:	No significant volatility; aqueous solution.
Vapour density:	Not applicable.
Evaporation rate:	No data.
Dynamic viscosity:	No data.
Kinematic viscosity:	No data.
Density:	1.655 g/cm ³ @ 20 °C
Solubility:	Water: Soluble
pH:	4.7
Partition coefficient:	log Pow: -3.2 @ 25 °C (glyphosate)

10. STABILITY AND REACTIVITY**Stability**

Stable under normal conditions of handling and storage.

Oxidizing properties

No data.

Materials to avoid/Reactivity

Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.

Self-accelerating decomposition temperature (SADT)

No data.

11. TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals.

Similar formulation**Acute oral toxicity****Rat, LD50 (limit test):** > 5,000 mg/kg body weight

Practically non-toxic.

FIFRA category IV.

Acute dermal toxicity**Rat, LD50 (limit test):** > 5,000 mg/kg body weight

Practically non-toxic.

FIFRA category IV.

No mortality.

Skin irritation**Rabbit, 6 animals, OECD 404 test:**

Days to heal: 7

Primary Irritation Index (PII): 0.8/8.0

FIFRA category IV.

Slight irritation.

Eye irritation**Rabbit, 6 animals, OECD 405 test:**

Days to heal: 10

Moderate irritation.

FIFRA category II.

Acute inhalation toxicity**Rat, male, LC50, 4 hours, aerosol:** 1.6 mg/L

FIFRA category III.

Slightly toxic.

Aerosol particle size (< 10 micron) much lower than the droplet size (> 100 micron) normally achieved during spraying operations.

Skin sensitization**Guinea pig, 3-induction Buehler test:**

Positive incidence: 0 %

N-(phosphonomethyl)glycine; {glyphosate}**Mutagenicity****In vitro and in vivo mutagenicity test(s):**

Not mutagenic.

Repeated dose toxicity**Rabbit, dermal, 21 days:**

NOAEL toxicity: > 5,000 mg/kg body weight/day

Target organs/systems: none

Other effects: none

Rat, oral, 3 months:

NOAEL toxicity: > 20,000 mg/kg diet

Target organs/systems: none

Other effects: none

Chronic effects/carcinogenicity**Mouse, oral, 24 months:**

NOEL tumour: > 30,000 mg/kg diet
NOAEL toxicity: ~ 5,000 mg/kg diet
Tumours: none
Target organs/systems: liver
Other effects: decrease of body weight gain, histopathologic effects

Rat, oral, 24 months:

NOEL tumour: > 20,000 mg/kg diet
NOAEL toxicity: ~ 8,000 mg/kg diet
Tumours: none
Target organs/systems: eyes
Other effects: decrease of body weight gain, histopathologic effects

Toxicity to reproduction/fertility

Rat, oral, 2 generations:

NOAEL toxicity: 10,000 mg/kg diet
NOAEL reproduction: > 30,000 mg/kg diet
Target organs/systems in parents: none
Other effects in parents: decrease of body weight gain
Target organs/systems in pups: none
Other effects in pups: decrease of body weight gain
Effects on offspring only observed with maternal toxicity.

Developmental toxicity/teratogenicity

Rat, oral, 6 - 19 days of gestation:

NOAEL toxicity: 1,000 mg/kg body weight
NOAEL development: 1,000 mg/kg body weight
Other effects in mother animal: decrease of body weight gain, decrease of survival
Developmental effects: weight loss, post-implantation loss, delayed ossification
Effects on offspring only observed with maternal toxicity.

Rabbit, oral, 6 - 27 days of gestation:

NOAEL toxicity: 175 mg/kg body weight
NOAEL development: 175 mg/kg body weight
Target organs/systems in mother animal: none
Other effects in mother animal: decrease of survival
Developmental effects: none

12. ECOLOGICAL INFORMATION

This section is intended for use by ecotoxicologists and other environmental specialists.

Data obtained on product, similar products and on components are summarized below.

Aquatic toxicity, fish

Bluegill sunfish (*Lepomis macrochirus*):

Acute toxicity, 96 hours, static, LC50: 24 mg/L
Slightly toxic.

Rainbow trout (*Oncorhynchus mykiss*):

Acute toxicity, 96 hours, static, LC50: 42 mg/L
Slightly toxic.

Aquatic toxicity, invertebrates

Water flea (*Daphnia magna*):

Acute toxicity, 48 hours, static, EC50: 160 mg/L
Practically non-toxic.

Similar formulation

Aquatic toxicity, algae/aquatic plants

Green algae (*Selenastrum capricornutum*):

Acute toxicity, 96 hours, static, EC50: 2.6 mg/L
Moderately toxic.

Duckweed (*Lemna minor*):

Acute toxicity, 7 days, static, EC50 (frond number): 6 mg/L

Avian toxicity

Bobwhite quail (*Colinus virginianus*):

Dietary toxicity, 5 days, LC50: > 5,620 mg/kg diet
Practically non-toxic.

Mallard duck (*Anas platyrhynchos*):

Dietary toxicity, 5 days, LC50: > 5,620 mg/kg diet
Practically non-toxic.

Arthropod toxicity

Honey bee (*Apis mellifera*):

Oral/contact, 48 hours, LD50: > 338 µg/bee
Practically non-toxic.

Soil organism toxicity, invertebrates

Earthworm (*Eisenia foetida*):

Acute toxicity, 14 days, LC50: > 5,000 mg/kg dry soil
Practically non-toxic.

N-(phosphonomethyl)glycine: {glyphosate}

Bioaccumulation

Bluegill sunfish (*Lepomis macrochirus*):

Whole fish: BCF: < 1
No significant bioaccumulation is expected.

Dissipation

Soil, field:

Half life: 2 - 174 days
Koc: 884 - 60,000 L/kg
Adsorbs strongly to soil.

Water, aerobic:

Half life: < 7 days

13. DISPOSAL CONSIDERATIONS

Product

Keep out of drains, sewers, ditches and water ways.
Recycle if appropriate facilities/equipment available.
Burn in proper incinerator.
Follow all local/regional/national/international regulations.

Container

See the individual container label for disposal information.
Emptied containers retain vapour and product residue.
Observe all labelled safeguards until container is cleaned, reconditioned or destroyed.
Empty packaging completely.
Triple or pressure rinse empty containers.
Do NOT contaminate water when disposing of rinse waters.
Ensure packaging cannot be reused.
Do NOT re-use containers.
Store for collection by approved waste disposal service.
Recycle if appropriate facilities/equipment available.
Follow all local/regional/national/international regulations.
Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

Not hazardous under the applicable DOT, ICAO/IATA, IMO, TDG and Mexican regulations.

15. REGULATORY INFORMATION**TSCA Inventory**

Exempt

OSHA Hazardous Components

Surfactant(s)

SARA Title III Rules

Section 311/312 Hazard Categories

Immediate

Section 302 Extremely Hazardous Substances

Not applicable.

Section 313 Toxic Chemical(s)

Not applicable.

CERCLA Reportable quantity

Not applicable.

16. OTHER INFORMATION

The information given here is not necessarily exhaustive but is representative of relevant, reliable data.

Follow all local/regional/national/international regulations.

Please consult supplier if further information is needed.

In this document the British spelling was applied.

	Health	Flammability	Instability	Additional Markings
NFPA	3	1	1	

0 = Minimal hazard, 1 = Slight hazard, 2 = Moderate hazard, 3 = Severe hazard, 4 = Extreme hazard

Full denomination of most frequently used acronyms. BCF (Bioconcentration Factor), BOD (Biochemical Oxygen Demand), COD (Chemical Oxygen Demand), EC50 (50% effect concentration), ED50 (50% effect dose), I.M. (intramuscular), I.P. (intraperitoneal), I.V. (intravenous), K_{oc} (Soil adsorption coefficient), LC50 (50% lethality concentration), LD50 (50% lethality dose), LDLo (Lower limit of lethal dosage), LEL (Lower Explosion Limit), LOAEC (Lowest Observed Adverse Effect Concentration), LOAEL (Lowest Observed Adverse Effect Level), LOEC (Lowest Observed Effect Concentration), LOEL (Lowest Observed Effect Level), MEL (Maximum Exposure limit), MTD (Maximum Tolerated Dose), NOAEC (No Observed Adverse Effect Concentration), NOAEL (No Observed Adverse Effect Level), NOEC (No Observed Effect Concentration), NOEL (No Observed Effect Level), OEL (Occupational Exposure Limit), PEL (Permissible Exposure Limit), PII (Primary Irritation Index), Pow (Partition coefficient n-octanol/water), S.C. (subcutaneous), STEL (Short-Term Exposure Limit), TLV-C (Threshold Limit Value-Ceiling), TLV-TWA (Threshold Limit Value - Time Weighted Average), UEL (Upper Explosion Limit)

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and other handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, WINFIELD SOLUTIONS or any of its subsidiaries makes no

representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for the purposes prior to use. In no event will WINFIELD SOLUTIONS or any of its subsidiaries be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR TO THE PRODUCT TO WHICH INFORMATION REFERS.

Issue Date 16-Jan-2015

Revision Date 09-Dec-2015

Version 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Name Gordon's Super Trimec® Broadleaf Herbicide

Other means of identification

Product Code PBI FP 785-6

EPA Pesticide Registration Number 2217-758

Recommended use of the chemical and restrictions on use

Recommended Use Herbicide.

Uses advised against No information available.

Details of the supplier of the safety data sheet

Supplier

PBI Gordon Corporation
1217 West 12th Street
Kansas City, MO 64101

Manufacturer

PBI Gordon Corporation
1217 West 12th Street
Kansas City, MO 64101

Company Name

PBI Gordon Corporation
1217 West 12th Street
Kansas City, MO 64101

Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Gases)	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 1
Aspiration toxicity	Category 1
Flammable liquids	Category 4

Label elements

Emergency Overview

Danger

Hazard statements

Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Causes serious eye damage. May be fatal if swallowed and enters airways.

Combustible liquid.



Appearance Clear

Physical state Liquid

Odor Esters

Precautionary Statements - Prevention

- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Wear protective gloves/protective clothing/eye protection/face protection
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area
- Contaminated work clothing should not be allowed out of the workplace
- Keep away from heat/sparks/open flames/hot surfaces. — No smoking

Precautionary Statements - Response

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- IF ON SKIN: Wash with plenty of soap and water
- Call a POISON CENTER or doctor/physician if you feel unwell
- Wash contaminated clothing before reuse
- If skin irritation or rash occurs: Get medical advice/attention
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- Call a POISON CENTER or doctor/physician if you feel unwell
- Rinse mouth
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- Do NOT induce vomiting
- In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

- Store locked up
- Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

- Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Have the product label with you when calling a poison control center or doctor or going in for treatment. You may also contact 1-877-800-5556 for emergency medical treatment advice.

Other Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%
2,4-D, 2-ethylhexyl ester	1928-43-4	32.45
Trade Secret	Proprietary	10-20*
2,4-DP Ethylhexyl ester	618446-52-9	15.9
3,6-Dichloro-o-anisic acid (Dicamba)	1918-00-9	5.38

* The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

General advice	If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Inhalation	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If symptoms persist, call a physician. Move to fresh air in case of accidental inhalation of vapors or decomposition products.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician immediately.
Self-protection of the first aider	Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use. Dry chemical. Carbon dioxide (CO2). Water spray (fog). Alcohol resistant foam.

Specific hazards arising from the chemical

In the event of fire and/or explosion do not breathe fumes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Keep product and empty container away from heat and sources of ignition. Risk of ignition.

Explosion data

- Sensitivity to Mechanical Impact None.
- Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharges.

Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Cover liquid spill with sand, earth or other non-combustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Dam up. Take precautionary measures against static discharges.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation. All equipment used when handling the product must be grounded. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Keep away from heat.

Incompatible materials None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2,4-D, 2-ethylhexyl ester 1928-43-4	TWA: 10 mg/m ³ inhalable fraction S*	TWA: 10 mg/m ³	IDLH: 100 mg/m ³ TWA: 10 mg/m ³

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Local and General Ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield.

Skin and body protection Wear protective gloves and protective clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Esters
Appearance	Clear	Odor threshold	No information available
Color	Yellow to Light brown		

Property	Values	Remarks • Method
pH	Not Available	
Melting point/freezing point	<35 °F	
Boiling point / boiling range	> 116 °C / 240 °F	
Flash point	88 °C / 190 °F	CC (closed cup)
Evaporation rate	< 1	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	<10 mm Hg	
Vapor density	>1	
Specific Gravity	1.02610	
Water solubility	Emulsifiable	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Oxidizing properties	No information available	

Other Information

Density	8.55 pounds/gallon
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10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization

Will not occur.

Conditions to avoid

Heat, flames and sparks. Keep from freezing.

Incompatible materials

None known.

Hazardous Decomposition Products

May emit toxic fumes under fire conditions. Hydrogen chloride. Carbon monoxide. Organochlorides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation No data available.
Eye contact Moderately irritating to the eyes.
Skin Contact Moderate skin irritation.
Ingestion No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2,4-D, 2-ethylhexyl ester 1928-43-4	= 300 mg/kg (Rat)	-	-
Trade Secret	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
3,6-Dichloro-o-anisic acid (Dicamba) 1918-00-9	= 1039 mg/kg (Rat)	> 2 g/kg (Rabbit) > 1 g/kg (Rat)	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization Not a skin sensitizer.
Germ cell mutagenicity No information available.
Carcinogenicity The International Agency for Research on Cancer (IARC) lists chlorophenoxy herbicides in its Group 2B (limited evidence for Carcinogenicity in humans.) The US EPA has given the chlorophenoxy Herbicides 2,4-D, 2,4-DP, MCPP, and MCPA a Class D classification (not classifiable as to human carcinogenicity.) More current 2,4-D lifetime feeding studies in rats and mice did not show carcinogenic effects and a recent World Health Organization (WHO) review of 2,4-D toxicology has concluded that 2,4-D is not a carcinogen. The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
2,4-D, 2-ethylhexyl ester 1928-43-4		Group 2B		X

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Chronic toxicity Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 40% of the mixture consists of ingredient(s) of unknown toxicity
Oral LD50 1141 mg/kg body weight
Dermal LD50 > 2000 mg/kg body weight
Inhalation LC50 4.15 mg/L (4 Hr.)

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (inhalation-gas) 2503 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects

45% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
2,4-D, 2-ethylhexyl ester 1928-43-4	30: 120 h Pseudokirchneriella subcapitata mg/L EC50 30: 120 h Pseudokirchneriella subcapitata mg/L EC50 static	6 - 8.7: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 11.5: 96 h Lepomis macrochirus mg/L LC50 static 7.8: 96 h Oncorhynchus mykiss mg/L LC50 static		
Trade Secret		2.2: 96 h Lepomis macrochirus mg/L LC50 static 2.4: 96 h Oncorhynchus mykiss mg/L LC50 static 45: 96 h Pimephales promelas mg/L LC50 flow-through		4720: 96 h Den-dronereides heteropoda mg/L LC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container, unless specified by the manufacturer.

US EPA Waste Number U240

14. TRANSPORT INFORMATION

DOT

Proper shipping name For package sizes less than 36 gallons: product is non-regulated.

Description For package sizes 36 gallons or greater: UN3082, Environmentally Hazardous Substances, Liquid, N.O.S., 9, PGIII, RQ (2,4-D)
The following guidelines apply for domestic ground transport. If shipping by air or ocean, please contact our Transportation Dept.

PESTICIDES, NOI, INCLUDING DEFOLIANTS, FUNGICIDES, HERBICIDES, OR
INSECTICIDES NMFC 155050-6

If shipped in bulk containers (greater than 119 gallons), this product is a Marine Pollutant.

When shipped as a Hazardous Material, label required is Class 9 (Miscellaneous).
Placards required on bulk shipments only.

15. REGULATORY INFORMATION

U.S. EPA Label Information

EPA Pesticide Registration Number 2217-758

Federal Insecticide, Fungicide, Rodenticide Act Regulations

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Pesticide Label

Warning. Keep out of the reach of children. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin. Harmful if inhaled. Avoid breathing spray mist.

International Inventories

TSCA	Not Listed
DSL/NDSL	Not Listed
EINECS/ELINCS	Not Listed
ENCS	Not Listed
IECSC	Not Listed
KECL	Not Listed
PICCS	Not Listed
AICS	Not Listed

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AICS - Australian Inventory of Chemical Substances

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
2,4-D, 2-ethylhexyl ester				X						
Trade Secret	X	X		X			X	X	X	X
3,6-Dichloro-o-anisic acid (Dicamba)				X		X		X	X	X

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
2,4-D, 2-ethylhexyl ester - 1928-43-4	0.1
3,6-Dichloro-o-anisic acid (Dicamba) - 1918-00-9	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
2,4-D, 2-ethylhexyl ester 1928-43-4	100 lb			
3,6-Dichloro-o-anisic acid (Dicamba) 1918-00-9	1000 lb			X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
2,4-D, 2-ethylhexyl ester 1928-43-4	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
3,6-Dichloro-o-anisic acid (Dicamba) 1918-00-9	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
2,4-D, 2-ethylhexyl ester 1928-43-4	X		
3,6-Dichloro-o-anisic acid (Dicamba) 1918-00-9	X	X	X

International Regulations

Mexico - Grade Moderate risk, Grade 2

16. OTHER INFORMATION

NFPA	Health hazards 2	Flammability 2	Instability 0	Physical and Chemical Properties -
HMIS	Health hazards 2	Flammability 2	Physical hazards 0	Personal protection X

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of PBI Gordon Corporation's knowledge, information and belief at the date of this publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process, unless specified in the text. PBI GORDON CORPORATION MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. Given the variety of factors that can affect the use and application of this product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to determine whether it is fit for a particular purpose and suitable for user's method of use or application. Each user is also responsible for evaluating the conditions of use and designing the appropriate protective mechanisms to prevent employee exposures, property damage, or release to the environment. PBI Gordon Corporation assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the product.

End of Safety Data Sheet