

Safety Data Sheets

All Locations



LCRA - Water Park

10/16/2020



Safety Data Sheet Index
Binder: LCRA - Water Park - All Locations

Product Name	CAS Number	Manufacturer	Version Date	Page
Deck-O-Seal GG Base - DECK-O-SEAL GG BASE		W. R. MEADOWS, INC.	09/09/2014	3
Deck-O-Seal GG Setting Agent - DECK-O-SEAL GG SETTING AGENT-VARIOUS COLORS		W. R. MEADOWS, INC.	09/09/2014	5
Dry Chlorine Granular - Leslie's Swimming Pool Supplies Chlor Brite	51580-86-0	LPM MANUFACTURING INC	06/17/2015	7
Hydrochloric Acid - Hydrochloric Acid (HCL) (All Grades)	7647-01-0	Occidental Chemical Corporation	01/21/2016	15
Hydrochloric Acid 37% - HYDROCHLORIC ACID, 37%, REAGENT (ACS)	7647-01-0	GFS Chemicals, Inc.	04/05/2016	21
Hydrochloric Acid 7-35% - Hydrochloric Acid 7% - 35%		BASIC CHEMICAL SOLUTIONS	10/10/2003	30
Ramuc Type EP Hi-Build Epoxy Beach Beige - Part A - Ramuc Type EP Hi-Build Epoxy Beach Beige - Part A		Kop-Coat, Inc.	10/07/2015	31
Ramuc Type EP Hi-Build Immersion Activator - Part B - Ramuc Type EP Hi-Build Immersion Activator - Part B		Kop-Coat, Inc.	10/07/2015	42
Sodium Hypochlorite 5-12.5% - BCS SODIUM HYPOCHLORITE SOLUTION (5 - 12.5%)		BASIC CHEMICAL SOLUTIONS	03/05/2009	53
Sun Large Tablets - Sun Large Tablets		ASEPSIS, INC.	11/10/2010	54



SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product: DECK-O-SEAL® GG BASE **Part Number:** 4702010
Manufacturer: W. R. Meadows®, Inc. **Address:** 300 Industrial Drive
 Hampshire, Illinois 60140
Telephone: (847) 214-2100 **In case of emergency, dial (800) 424-9300 (CHEMTREC)**
Revision Date: 9/9/2014
Product Use: Two Component Joint Sealant

SECTION 2: HAZARDS IDENTIFICATION/EXPOSURE LIMITS

HMIS	HAZARD STATEMENTS
Health	1 WARNING!
Flammability	1 May cause skin/eye irritation.
Reactivity	0 PRECAUTIONARY STATEMENTS
Personal Protection	Avoid direct contact. Avoid breathing aerosols/sprays.



SECTION 3: HAZARDS COMPONENTS

Chemical Name:	CAS Number	% by Weight	SARA 313	Vapor Pressure (mm Hg@20°C)	LEL (@25°C)
1. Polysulfide Polymer	68611-50-7	55-60	No	N/E	N/E
2. Titanium Dioxide	13463-67-7	1-5	No	N/E	N/E

This product contains limestone. Limestone contains crystalline silica as a naturally occurring component. Exposure to silica is not expected to occur as the product is supplied as a solution. If product is dry/abraded appropriate protective measures should be taken to control exposure to airborne silica.

Under the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1966 (SARA) and 40 CFR Part 372, chemicals listed on the 313 List (40 CFR Part 373.65) are identified under the heading "SARA 313." *N/A: Not Applicable*

SECTION 4: EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Move victim from exposure source. Flush eyes with water for fifteen minutes. If symptoms persist, seek medical attention.
SKIN CONTACT: Remove contaminated shoes/clothing. Wash affected areas with mild soap and water. If symptoms persist, seek medical attention.
INHALATION: Move victim from exposure source and treat symptoms. If symptoms persist, seek medical attention.
INGESTION: Seek immediate medical attention. Do not induce vomiting. If vomiting spontaneously occurs, keep the victim's head below the hips to prevent lung aspiration.

SECTION 5: FIRE AND EXPLOSIVES HAZARDS

FLASHPOINT: > 210 degrees F
EXTINGUISHING MEDIA: Water fog, foam, dry chemical, and carbon dioxide.
CHEMICAL/COMBUSTION HAZARDS: Carbon monoxide, carbon dioxide, and incomplete combustion products may be emitted.
PRECAUTIONS/PERSONAL PROTECTIVE EQUIPMENT: Use of full fire protection ensemble with SCBA is recommended.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: Evacuate area of unprotected personnel. Dike/contain spilled material. Take up with an appropriate absorbent and place in sealed/marked containers for proper disposal.

SECTION 7: HANDLING AND STORAGE

SAFE HANDLING PROCEDURES: Avoid direct contact.
SAFE STORAGE: Keep containers closed when not in use. Store in cool/dry location.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name:	OSHA				ACGIH			
	PEL	PEL/CEILING	PEL/STEL	SKIN	TWA	TLV/CEILING	TLV/STEL	SKIN
1. Polysulfide Polymer	N/E	N/E	N/E	N/E	N/E	N/E	N/E	N/E
2. Titanium Dioxide*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/E: Not Established. *Titanium dioxide exposure limits not provided as materials are in suspension.

ENGINEERING CONTROLS: None normally required under normal use conditions.

PERSONAL PROTECTIVE EQUIPMENT: Safety glasses, chemical-resistant gloves.

SAFETY DATA SHEET

Date of Preparation: 9/9/14	Page 2 of 2	4702010
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES		
BOILING POINT: Not Established	VAPOR DENSITY: >1 (Air=1)	% VOLATILE BY VOLUME: Not Applicable
EVAPORATION RATE: <1 (Ether=1)	pH LEVEL: N/A	% VOLATILE BY WEIGHT: Not Applicable
WEIGHT PER GALLON: 11.82	PRODUCT APPEARANCE: Heavy Liquid	VOC CONTENT: 0 g/L
SECTION 10: STABILITY/REACTIVITY		
STABILITY: Stable.	HAZARDOUS POLYMERIZATION: Will not occur.	
CONDITIONS AND MATERIALS TO AVOID: Oxidizing materials and strong acids.		
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, and incomplete combustion products.		
SECTION 11: TOXICOLOGICAL INFORMATION		
EYE CONTACT: Direct contact may cause mild to moderate irritation. Corneal injury is unlikely.		
SKIN CONTACT: Direct contact may result in mild to moderate irritation. Prolonged contact may result in drying/defatting of the skin.		
INHALATION: Not expected to be an exposure route under normal use conditions.		
INGESTION: Not expected to be an exposure route under normal use conditions.		
SIGNS AND SYMPTOMS: Symptoms of eye irritation include pain, tearing, redness, and swelling. Symptoms of skin irritation include reddening, swelling, rash, and redness. Symptoms of respiratory irritation include runny nose, chest discomfort, shortness of breath, and reduced lung function. Symptoms of gastrointestinal irritation include sore throat, abdominal pain, nausea, vomiting, and diarrhea.		
AGGRAVATED MEDICAL CONDITIONS: Pre-existing skin, eye, and respiratory disorders may be aggravated by exposure to this product.		
OTHER HEALTH EFFECTS: None recognized.		
SECTION 12: ECOLOGICAL INFORMATION		
ECOTOXICITY: Not Established	DEGRADABILITY: N/E	BIOACCUMULATIVE POTENTIAL: N/E
SOIL MOBILITY: N/E	OTHER ADVERSE EFFECTS: N/E	
SECTION 13: WASTE DISPOSAL INFORMATION		
WASTE DISPOSAL INFORMATION: Non-hazardous material for waste disposal purposes. Material mixed and set up can be landfill disposed.		
SECTION 14: TRANSPORTATION INFORMATION		
HAZARDOUS/NON-HAZARDOUS MATERIAL: Non-hazardous.		
UN NUMBER: None.	HAZARD CLASS: None.	PACKING GROUP: None.
UN PROPER SHIPPING NAME: Not regulated.		
ENVIRONMENTAL HAZARDS: Not determined.		
BULK TRANSPORTATION INFORMATION: Not applicable; product is not shipped in bulk.		
SPECIAL PRECAUTIONS: None recognized.		
SECTION 15: REGULATORY INFORMATION		
OTHER REGULATORY CONSIDERATIONS: None.		
SECTION 16: OTHER INFORMATION		
PREPARATION DATE:	9/9/2014	
PREPARED BY:	Dave Carey	

The information contained herein is based on the data available to us and is believed to be correct. However, we make no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for injury from the use of this product described herein.



SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product:	DECK-O-SEAL® GG SETTING AGENT-VARIOUS COLORS	Part Number: 4702000
Manufacturer:	W. R. Meadows®, Inc.	Address: 300 Industrial Drive Hampshire, Illinois 60140
Telephone:	(847) 214-2100	In case of emergency, dial (800) 424-9300 (CHEMTREC)
Revision Date:	9/9/2014	
Product Use:	Two Component Joint Sealant	

SECTION 2: HAZARDS IDENTIFICATION/EXPOSURE LIMITS

HMIS	HAZARD STATEMENTS	
Health	WARNING!	
Flammability	May cause skin/eye irritation.	
Reactivity	May cause an allergic skin reaction.	
Personal Protection	PRECAUTIONARY STATEMENTS Avoid direct contact. Avoid breathing aerosols/sprays.	

SECTION 3: HAZARDS COMPONENTS

Chemical Name:	CAS Number	% by Weight	SARA 313	Vapor Pressure (mm Hg@20°C)	LEL (@25°C)
1. Epoxy Resin	25068-38-6	5-10	No	N/E	N/E
2. Dimethylbenzyl Hydroperoxide	80-15-9	5-10	Yes	2	N/E
3. Titanium Dioxide	13463-67-7	0-28	No	N/E	N/E

This product contains limestone. Limestone contains crystalline silica as a naturally occurring component. Exposure to silica is not expected to occur as the product is supplied as a solution. If product is dry/abraded appropriate protective measures should be taken to control exposure to airborne silica.

Under the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1966 (SARA) and 40 CFR Part 372, chemicals listed on the 313 List (40 CFR Part 373.65) are identified under the heading "SARA 313." N/A: Not Applicable

SECTION 4: EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Move victim from exposure source. Flush eyes with water for fifteen minutes. If symptoms persist, seek medical attention.
SKIN CONTACT: Remove contaminated shoes/clothing. Wash affected areas with mild soap and water. If symptoms persist, seek medical attention.
INHALATION: Move victim from exposure source and treat symptoms. If symptoms persist, seek medical attention.
INGESTION: Seek immediate medical attention. Do not induce vomiting. If vomiting spontaneously occurs, keep the victim's head below the hips to prevent lung aspiration.

SECTION 5: FIRE AND EXPLOSIVES HAZARDS

FLASHPOINT: > 210 degrees F
EXTINGUISHING MEDIA: Water fog, foam, dry chemical, and carbon dioxide.
CHEMICAL/COMBUSTION HAZARDS: Carbon monoxide, carbon dioxide, and incomplete combustion products may be emitted.
PRECAUTIONS/PERSONAL PROTECTIVE EQUIPMENT: Use of full fire protection ensemble with SCBA is recommended.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: Evacuate area of unprotected personnel. Dike/contain spilled material. Take up with an appropriate absorbent and place in sealed/marked containers for proper disposal.

SECTION 7: HANDLING AND STORAGE

SAFE HANDLING PROCEDURES: Avoid direct contact.
SAFE STORAGE: Keep containers closed when not in use. Store in cool/dry location.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name:	OSHA				ACGIH			
	PEL	PEL/CEILING	PEL/STEL	SKIN	TWA	TLV/CEILING	TLV/STEL	SKIN
1. Epoxy Resin	N/E	N/E	N/E	N/E	N/E	N/E	N/E	N/E
2. Dimethyl Benzyl Hydroperoxide	N/E	N/E	N/E	N/E	N/E	N/E	N/E	N/E
3. Titanium Dioxide*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/E: Not Established. *Titanium dioxide exposure limits not provided as materials are in suspension.

ENGINEERING CONTROLS: None normally required under normal use conditions.

PERSONAL PROTECTIVE EQUIPMENT: Safety glasses, chemical resistant gloves.

SAFETY DATA SHEET

Date of Preparation: 9/9/14

Page 2 of 2

4702000

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 250 degrees F **VAPOR DENSITY:** >1 (Air=1) **% VOLATILE BY VOLUME:** Not Applicable
EVAPORATION RATE: <1 (Ether=1) **pH LEVEL:** N/A **% VOLATILE BY WEIGHT:** Not Applicable
WEIGHT PER GALLON: 15.14 **PRODUCT APPEARANCE:** Heavy Liquid **VOC CONTENT:** 0 g/L

SECTION 10: STABILITY/REACTIVITY

STABILITY: Stable. **HAZARDOUS POLYMERIZATION:** Will not occur.
CONDITIONS AND MATERIALS TO AVOID: Oxidizing materials, strong acids, lead, copper, and their alloys, zinc, amines, polyamines, and polyamides under uncontrolled conditions.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, and incomplete combustion products.

SECTION 11: TOXICOLOGICAL INFORMATION

EYE CONTACT: Direct contact may cause mild to moderate irritation.
SKIN CONTACT: Direct contact may result in mild to moderate irritation. May cause a skin sensitization reaction in susceptible individuals. Skin sensitization may be temporary or permanent. Once an individual is diagnosed as sensitized, no further exposures can be permitted.
INHALATION: Not expected to be an exposure route under normal use conditions.
INGESTION: Not expected to be an exposure route under normal use conditions.
SIGNS AND SYMPTOMS: Symptoms of eye irritation include pain, tearing, redness, and swelling. Symptoms of skin irritation include reddening, swelling, rash, and redness. Symptoms of respiratory irritation include runny nose, chest discomfort, shortness of breath, and reduced lung function. Symptoms of gastrointestinal irritation include sore throat, abdominal pain, nausea, vomiting, and diarrhea. Skin sensitization includes allergic dermatitis exhibited by rash, itching, hives, and swelling of extremities.
AGGRAVATED MEDICAL CONDITIONS: Pre-existing skin, eye, and respiratory disorders may be aggravated by exposure to this product.
OTHER HEALTH EFFECTS: None recognized.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: Not Established **DEGRADABILITY:** N/E **BIOACCUMULATIVE POTENTIAL:** N/E
SOIL MOBILITY: N/E **OTHER ADVERSE EFFECTS:** N/E

SECTION 13: WASTE DISPOSAL INFORMATION

WASTE DISPOSAL INFORMATION: Non-hazardous material for waste disposal purposes. Material mixed and set up can be landfill disposed.

SECTION 14: TRANSPORTATION INFORMATION

HAZARDOUS/NON-HAZARDOUS MATERIAL: Non-hazardous.
UN NUMBER: None. **HAZARD CLASS:** None. **PACKING GROUP:** None.
UN PROPER SHIPPING NAME: Not regulated.
ENVIRONMENTAL HAZARDS: Not determined.
BULK TRANSPORTATION INFORMATION: Not applicable; product is not shipped in bulk.
SPECIAL PRECAUTIONS: None recognized.

SECTION 15: REGULATORY INFORMATION

OTHER REGULATORY CONSIDERATIONS: None.

SECTION 16: OTHER INFORMATION

PREPARATION DATE: 9/9/2014
PREPARED BY: Dave Carey

The information contained herein is based on the data available to us and is believed to be correct. However, we make no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for injury from the use of this product described herein.

1. Product and Company Identification

Product identifier	Leslie's Swimming Pool Supplies Chlor Brite
Other means of identification	Not available
Recommended use	Sanitizer
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	
Company name	LPM Manufacturing, Inc.
Address	2005 E. Indian School Rd. Phoenix, AZ 85016 United States
Telephone	602-366-3999
E-mail	Not available.
Emergency phone number	800-424-9300 (CHEMTREC)

2. Hazards Identification

Physical hazards	Oxidizing solids	Category 2
Health hazards	Acute toxicity, oral	Category 4
	Acute toxicity, inhalation	Category 2
	Skin corrosion/irritation	Category 1C
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	

Label elements



Signal word	Danger
Hazard statement	May intensify fire; oxidizer. Harmful if swallowed. Fatal if inhaled. Causes severe skin burns and eye damage. May cause respiratory irritation.
Precautionary statement	
Prevention	Keep away from heat. Keep/Store away from clothing/.../combustible materials. Take any precaution to avoid mixing with combustibles. Do not breathe dust/fume. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.
Response	In case of fire: Use appropriate media to extinguish. If inhaled: Remove person to fresh air and keep comfortable for breathing. Specific treatment is urgent (see this label). If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. 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.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	Damp or wet material may generate nitrogen trichloride, an explosion hazard. Contact with acids liberates toxic gas.

3. Composition/Information on Ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Sodium dichloroisocyanurate dihydrate		51580-86-0	98-100

4. First Aid Measures

Inhalation	If inhaled: Move the person toward a source to fresh air. If the person is not breathing, call 911 or an ambulance, then apply artificial respiration, preferably on mouth to mouth, if possible. Call a center anti-poison or a doctor for advice on the treatment.
Skin contact	If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.
Eye contact	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.
Ingestion	If swallowed: 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.
Most important symptoms/effects, acute and delayed	<p>Acute Symptoms/Effects: Listed below.</p> <p>Eye: Serious Eye Damage. Exposure to the eyes may cause irritation and burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to the internal contents of the eyes.</p> <p>Skin: Skin Corrosion. Exposure to the solid along with moisture may cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third degree burns to the skin.</p> <p>Inhalation (Breathing): Respiratory System Effects: Exposure to the solid product or to free chlorine evolving from the product may cause irritation, redness of upper and lower airways, coughing, laryngeospasm and edema, shortness of breath, bronchoconstriction, and possible pulmonary edema to the user. The pulmonary edema may develop several hours after a severe acute exposure.</p> <p>Ingestion (Swallowing): Gastrointestinal Effects: Exposure by ingestion may cause irritation, nausea, and vomiting. May cause local tissue damage to esophagus and stomach such as burning, inflammation, local ulceration, and may cause gastrointestinal bleeding.</p> <p>Delayed Symptoms/Effects: Repeated and prolonged skin contact with the product may cause a dermatitis.</p>
Indication of immediate medical attention and special treatment needed	<p>Probable mucosal damage may contraindicate the use of gastric lavage.</p> <p>Treat this product as a corrosive substance. This material is more irritating to the skin and eyes in the presence of water. For prolonged exposures and significant exposures, consider delayed injury to exposed tissues. There is no antidote available. Cyanuric acid is readily removed from the body via the renal system, and is not bioaccumulated. Treatment is supportive care. Follow normal parameters for airway, breathing, and circulation when treating the victim.</p>
General information	<p>Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).</p> <p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p>

5. Fire Fighting Measures

Suitable extinguishing media	Flood with water.
Unsuitable extinguishing media	Dry chemical. carbon dioxide (CO2) Do not use halogenated extinguishing agents or foam. Do not use ABC fire extinguishers.
Specific hazards arising from the chemical	May intensify fire; oxidizer.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Consider evacuation of personnel located downwind of fire. Keep unnecessary people away from the fire, isolate hazard area and deny entry. Move the 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. Wear NIOSH approved positive-pressure self-contained breathing apparatus operated in pressure demand mode if available. Material which appears undamaged except for being damp on the outside, should be opened and inspected immediately. DO NOT attempt to reseal the contaminated drums. Damp material should be neutralized to a non-oxidizing state by using proper methods. Confirm with manufacturer before proceeding. Contact manufacturer for instructions for handling and disposal of damp material.
Specific methods	Cool containers exposed to flames with water until well after the fire is out.

General fire hazards Negligible fire hazard. If heated by an outside source to temperatures above 240°C (464°F), this product will undergo decomposition with the evolution of noxious gases but no visible flame. Wet material may generate nitrogen trichloride which is an explosion hazard.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures Isolate the hazard area and deny entry. Do not get in eyes, on skin or on clothing. Do not breathe dust, fumes, gas, mists, vapors, or spray. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Minimize dust generation and accumulation. DO NOT add water to the spilled material. DO NOT use floor sweeping compounds to clean up spills. Sweep and scoop the spilled material into clean, dedicated equipment. Avoid mixing spilled material with other chemicals or debris when cleaning up. DO NOT attempt to reseal the contaminated drums. DO NOT transport wet or damp product. Damp material should be neutralized to a non-oxidizing state under the instruction from the manufacturer. Contact the manufacturer for instructions for handling and disposal of damp material. For waste disposal, see section 13 of the SDS.

Environmental precautions Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. Keep out of waterways.

7. Handling and Storage

Precautions for safe handling Avoid contact with eyes, skin and clothing. Do not breathe dust. Minimize dust generation and accumulation. Wash hands thoroughly after handling. Wear appropriate personal protective equipment.

Conditions for safe storage, including any incompatibilities Do not contaminate water, food or feed by storage and disposal. Store in a cool, dry, well-ventilated place. Keep away from heat, open flames or other sources of ignition. Store in a cool dry place inaccessible to children and pets.

8. Exposure Controls/Personal Protection

Occupational exposure limits No exposure limits noted for ingredient(s).

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. Eye wash facilities and emergency shower must be available when handling this product. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical splash goggles. Eye wash fountain is recommended.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Butyl rubber. Natural rubber. Neoprene gloves. Nitrile rubber. Polyvinyl chloride (PVC). Tyvek®.

Other Wear appropriate chemical resistant clothing.

Respiratory protection Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Wear respirator with dust filter.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Wash hands after handling and before eating.

9. Physical and Chemical Properties

Appearance Granular solid

Physical state Solid.

Form Granules / Crystals

Color White

Odor Slight chlorine.

Odor threshold Not available.

pH 6 - 7 @ 25°C (1% solution)

Melting point/freezing point Decomposes without melting @ 252°C

Initial boiling point and boiling range Not available.

Pour point Not available.

Specific gravity Not available.

Partition coefficient (n-octanol/water) 0

Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1.95 g/ml @ 25°C
Solubility(ies)	26.5 g/100 g @ 25°C
Auto-ignition temperature	Not available.
Decomposition temperature	486 °F (252.2 °C) Dehydrates @104-212°F
Viscosity	Not available.
Other information	
Bulk density	56 - 60 lb/ft3 (loose)
Molecular formula	C3N3O3Cl2Na.2H2O
Molecular weight	256

10. Stability and Reactivity

Reactivity	Reacts with acids. Ammonia. Floor sweeping compounds. Bases. Calcium hypochlorite. Strong reducing agents. Organic solvents. Organic materials.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Never add water to product. Always add product to large quantities of water. Use only clean, dry utensils. Do not add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire or explosion. Contamination with moisture, organic material or other chemicals may start a chemical reaction with generation of heat, liberation of hazardous gases and possible fire or explosion. Avoid contact with flaming or burning material, such as lighted cigarette. In case of contamination or decomposition, do not reseal container. If possible, isolate container in open and well-ventilated area and flood with large amounts of water.
Incompatible materials	Strong oxidizing agents. Acids. Caustics. Reducing agents.
Hazardous decomposition products	May include and are not limited to: Nitrogen trichloride. Hydrogen chloride. Chlorine gas. Oxides of nitrogen. Cyanogen chloride. Oxides of carbon. Phosgene.

11. Toxicological Information

Information on likely routes of exposure

Ingestion	Harmful if swallowed. May cause irritation, nausea, and vomiting. May cause local tissue damage to epiglottis, mucus membranes of the mouth, esophagus and stomach such as burning, inflammation, local ulceration, and may cause gastrointestinal bleeding if ingested.
Inhalation	Fatal if inhaled. This material in the form is not expected to produce respiratory effects. Particles of respirable size are generally not encountered in this form. The respirable fraction is typically less than 0.1% by weight for the granular and extra granular grades. If ground or otherwise in a powdered form, effects similar to a corrosive substance may occur to the user. Exposure to the solid product or to free chlorine evolving from the product may cause irritation, redness of upper and lower airways, coughing, laryngeospasm and edema, shortness of breath, bronchoconstriction, and possible pulmonary edema. The pulmonary edema may develop several hours after a severe acute exposure to the product.
Skin contact	Causes severe skin burns. Severe Irritation, Corrosive (rabbit, 24 hr). Exposure to the solid along with moisture may cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third degree burns. Dry material may be less irritating than wet material.
Eye contact	Causes serious eye damage. Severe Irritation, Corrosive (rabbit, 24 hr). May cause burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to the internal contents of eyes.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects**Acute toxicity** Fatal if inhaled. Harmful if swallowed. May cause respiratory irritation.

Product	Species	Test Results
Leslie's Swimming Pool Supplies Chlor Brite (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	0.27 - 1.2 mg/l/4h
<i>Oral</i>		
LD50	Rat	1823 mg/kg

Components	Species	Test Results
Sodium dichloroisocyanurate dihydrate (CAS 51580-86-0)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 3160 mg/kg
		> 2000 mg/kg
		11000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 1637.5 mg/m3/4H
		> 1481 mg/m3, 4 hours
		> 847.5 mg/m3, 4 hours
<i>Oral</i>		
LD50	Rat	1670 mg/kg
		1420 mg/kg
		620 mg/kg

Skin corrosion/irritation Causes severe skin burns and eye damage in presence of moisture.

Exposure minutes Not available.
Erythema value Not available.
Oedema value Not available.

Serious eye damage/eye irritation Causes serious eye damage in presence of moisture.

Corneal opacity value Not available.
Iris lesion value Not available.
Conjunctival reddening value Not available.
Conjunctival oedema value Not available.
Recover days Not available.

Respiratory or skin sensitization

Respiratory sensitization Not available.
Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.**Specific target organ toxicity - single exposure** Respiratory tract irritation.**Specific target organ toxicity - repeated exposure** Not classified.**Aspiration hazard** Not available.**Chronic effects** Not available.**Further information** Not available.

12. Ecological Information

Ecotoxicity	See below		
Components		Species	Test Results
Sodium dichloroisocyanurate dihydrate (CAS 51580-86-0)			
Aquatic			
Crustacea	EC50	Water flea (<i>Daphnia magna</i>)	0.15 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>)	0.29 mg/l, 96 hours
Persistence and degradability	No data is available on the degradability of this product.		
Bioaccumulative potential	Not available.		
Partition coefficient n-octanol / water (log Kow)			
Leslie's Swimming Pool Supplies Chlor Brite		0	
Mobility in soil	No data available.		
Mobility in general	Not available.		
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.		

13. Disposal Considerations

Disposal instructions	<p>This material is a registered pesticide. May be subject to disposal regulations. Dispose of contents/container in accordance with local/regional/national/international regulations. Do not place product, spilled product, or filled or partially filled containers into the trash or waste compactor. DO NOT transport wet or damp waste material. Damp material should be neutralized to a non-oxidizing state. Contact the manufacturer for instructions for handling and disposal of damp material.</p> <p>PESTICIDE DISPOSAL: 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 the nearest EPA Regional Office for guidance.</p> <p>CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container. Offer empty container for recycling.</p>
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

General	Non-Bulk Packaging: Not Regulated unless transported by vessel. Bulk Packaging or Shipment by Vessel: Regulated as below:
U.S. Department of Transportation (DOT)	
Basic shipping requirements:	
UN number	UN3077
Proper shipping name	Environmentally hazardous substances, solid, n.o.s. (Sodium dichloroisocyanurate dihydrate), MARINE POLLUTANT
Hazard class	9
Packing group	III
Marine pollutant	Yes
Special provisions	8, 146, 335, A112, B54, IB8, IP3, N20, T1, TP33
Packaging exceptions	155
Packaging non bulk	213
Packaging bulk	240



15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

EPA Reg. # 11411-15

DANGER

Keep out of reach of children.

PRECAUTIONARY STATEMENTS: HAZARDS TO HUMANS AND DOMESTIC ANIMALS. HIGHLY CORROSIVE. Causes irreversible eye damage and skin burns. Harmful if swallowed. Irritating to nose and throat. Do not get in eyes, on skin or clothing. Wear protective eyewear (goggles or safety glasses). Wear protective clothing and rubber gloves when handling this product. Avoid breathing dust and fumes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

ENVIRONMENTAL HAZARD: This pesticide is toxic to fish and aquatic organisms.

PHYSICAL OR CHEMICAL HAZARD: Strong oxidizing agent.

Never add water to product. Always add product to large quantities of water. Use only clean, dry utensils. Do not add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire or explosion. Contamination with moisture, organic material or other chemicals may start a chemical reaction with generation of heat, liberation of hazardous gases and possible fire or explosion. Avoid contact with flaming or burning material, such as lighted cigarette. In case of contamination or decomposition, do not reseal container. If possible, isolate container in open and well-ventilated area and flood with large amounts of water.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Immediate Hazard - Yes
 Delayed Hazard - No
 Fire Hazard - Yes
 Pressure Hazard - No
 Reactivity Hazard - Yes

SARA 302 Extremely hazardous substance

No

SARA 311/312 Hazardous chemical

No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

Food and Drug Administration (FDA)

Not regulated.

US state regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US - New Jersey RTK - Substances: Listed substance

Sodium dichloroisocyanurate dihydrate (CAS 51580-86-0) Listed.

US. Massachusetts RTK - Substance List

Sodium dichloroisocyanurate dihydrate (CAS 51580-86-0) Listed.

US. Pennsylvania RTK - Hazardous Substances

Sodium dichloroisocyanurate dihydrate (CAS 51580-86-0) Listed.

US. Rhode Island RTK

Not regulated.

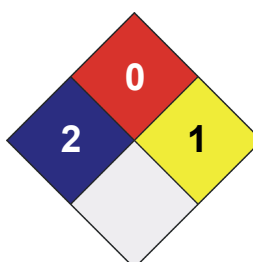
Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 3
FLAMMABILITY	0
PHYSICAL HAZARD	1
PERSONAL PROTECTION	X



Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Issue date

17-June-2015

Further information

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

Other information

This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Prepared by

Dell Tech Laboratories Ltd. Phone: (519) 858-5021

Material Safety Data Sheet

24 Hour Emergency Phone Numbers:
Medical/Poison Control: 1-800-327-3874
1-513-558-5111
Transportation/National Response Center:
1-800-535-5053
1-352-323-3500

•NOTE: The 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.

IMPORTANT: Provide this information to employees, customers, and users of this product. Read this MSDS before handling or disposing of this product. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard. All abbreviated terms used in this MSDS are further described in Section 16.

Section 1 - Chemical Product / Company Information

This Material Safety Data Sheet is available in Canadian French and Hispanic American Spanish upon request.
 On peut demander cette fiche signalétique (MSDS) à la langue française-canadienne.
 Los Datos de Seguridad del Producto pueden obtenerse en Español si lo requiere.

Product Name:	ACE Ready Mixed Concrete Patch	Revision Date:	01/29/2008
Product UPC Number:	082901131281, 082901131519	Supercedes:	02/09/2006
Product Use/Class:	Ready To Use Concrete Repair/Floor Preparation	MSDS Number:	00079935251
Manufacturer for:	ACE Hardware Corporation 2200 Kensington Court Oakbrook, IL 60523 888-327-8477 (non-emergency matters)		

Section 2 - Hazards Identification

Emergency Overview: A gray paste product with a slight odor. **WARNING!** May cause eye, skin, nose, throat and respiratory tract irritation. Harmful if swallowed or absorbed through the skin. This product contains ethylene glycol.

Refer to other MSDS sections for other detailed information.

Effects Of Overexposure - Eye Contact: May cause eye irritation.

Effects Of Overexposure - Skin Contact: Harmful if absorbed through the skin. Prolonged or repeated contact with skin may cause irritation. May cause dry skin.

Effects Of Overexposure - Inhalation: Harmful if inhaled. Inhalation may cause irritation to the respiratory tract (nose, mouth, mucous membranes).

Effects Of Overexposure - Ingestion: Harmful if swallowed.

Effects Of Overexposure - Chronic Hazards: Repeated or prolonged exposure may cause respiratory system damage.

Prolonged and repeated skin contact may cause irritation and possibly dermatitis.

The International Agency for Research on Cancer (IARC) has determined that crystalline silica in the form of quartz or cristobalite that is inhaled from occupational sources is carcinogenic to humans (Group 1 - carcinogenic to humans). Refer to IARC Monograph 68, Silica, Some Silicates and Organic Fibres (published in June 1997) in conjunction with the use of these materials. The National Toxicology Program (NTP) classifies respirable crystalline silica as "known to be a human carcinogen". Refer to the 9th Report on Carcinogens (2000). The American Conference of Governmental Industrial Hygienists (ACGIH) classifies crystalline silica, quartz, as a suspected human carcinogen (Group A2).

Breathing dust containing respirable crystalline silica may not cause noticeable injury or illness even though permanent lung damage may be occurring. Inhalation of dust may have the following serious chronic health effects: Excessive inhalation of respirable dust can cause pneumoconiosis, a respiratory disease, which can result in delayed, progressive, disabling and sometimes fatal lung injury. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function. Smoking exacerbates this disease. Individuals with pneumoconiosis are predisposed to develop tuberculosis. There is some evidence that breathing respirable crystalline silica or the disease silicosis is associated with an increased incidence of significant disease endpoints such as scleroderma (an immune system disorder manifested by fibrosis of the lungs, skin and other internal organs) and kidney disease. Overexposure may cause kidney, cardiovascular, skin and liver damage.

Ethylene Glycol may cause kidney and liver damage upon prolonged and repeated overexposures. Studies have shown that repeated inhalation of ethylene glycol has produced adverse cardiovascular changes in laboratory animals. Ethylene glycol has been shown to cause birth defects in laboratory animals.

Primary Route(s) Of Entry: Skin Contact, Skin Absorption, Inhalation

Medical Conditions which May be Aggravated by Exposure: Asthma and asthma-like conditions may worsen from prolonged and repeated exposure.

Carcinogenicity:

CAS No.	Chemical Name	ACGIH	OSHA	IARC	NTP
14808-60-7	Silica, crystalline	Suspected human carcinogen.	Not Listed.	Human carcinogen.	Known carcinogen.

Section 3 - Composition / Information On Ingredients		
Chemical Name	CASRN	Wt%
Silica, crystalline	14808-60-7	30-60
Limestone	1317-65-3	15-40
Ethylene glycol	107-21-1	0.5-1.5

Section 4 - First Aid Measures

First Aid - Eye Contact: In case of contact, immediately flush eyes with large quantities of water for at least 15 minutes until irritation subsides. Get medical attention immediately.

First Aid - Skin Contact: Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing.

First Aid - Inhalation: If inhaled, remove to fresh air. If breathing is difficult, leave the area to obtain fresh air. If continued breathing difficulty is experienced, get medical attention immediately.

First Aid - Ingestion: If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately.

Note to Physician: None.

COMMENTS: Call Medical Emergency at 1-800-327-3874 if any irritation or complication arises from any of the above routes of entry.

Section 5 - Fire Fighting Measures

Extinguishing Media: Alcohol, Carbon Dioxide, Dry Chemical, Foam, Water Fog

Unusual Fire And Explosion Hazards: No special protective measures against fire required.

Special Firefighting Procedures: Wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear. Use water spray to cool exposed surfaces.

Section 6 - Accidental Release Measures

Steps To Be Taken If Material Is Released Or Spilled: Wear proper protective equipment as specified in Section 8. Use absorbent material or scrape up dried material and place in container.

Section 7 - Handling And Storage

Handling: KEEP OUT OF REACH OF CHILDREN! DO NOT TAKE INTERNALLY. Avoid breathing vapor and contact with eyes, skin and clothing. Use only with adequate ventilation. Ensure fresh air entry during application and drying. Do not inhale dusts of this product. While dry sanding, use of a NIOSH-approved dust mask is recommended. Removal of this product after use will result in the generation of Dust. If dry-sanded, exposure to dust may result in the build-up of material in eyes, ears, nose, and mouth which may cause irritation. Wash thoroughly after handling.

Storage: Do not store at temperatures above 120 degrees F. Store containers away from excessive heat and freezing. Close container after each use. Store away from caustics and oxidizers.

Section 8 - Exposure Controls / Personal Protection

Chemical Name	CASRN	ACGIH TWA	ACGIH STEL	ACGIH CEIL	OSHA TWA	OSHA STEL	OSHA CEIL	Skin
Silica, crystalline	14808-60-7	0.05 MGM3	N.E.	N.E.	10/(%SiO ₂ + 2) MGM3	N.E.	N.E.	No
Limestone	1317-65-3	10 MGM3	N.E.	N.E.	5 MGM3 (respirable fraction)	N.E.	N.E.	No
Ethylene glycol	107-21-1	N.E.	N.E.	100 MGM3	N.E.	N.E.	N.E.	No

Exposure Notes:

14808-60-7 The 2002 ACGIH Threshold Limit Values for Chemical Substances and Physical Agents lists the median Respirable Particulate Mass (RPM) point for crystalline silica at 4.0 microns in terms of the particle's aerodynamic diameter.

The TLVs for crystalline silica represent the respirable fraction.

OSHA PEL TWA for Quartz is calculated using the following formula: $10 \text{ mg/m}^3 / (\% \text{ SiO}_2 + 2)$. Both concentration and percent quartz for the application of this limit are to be determined from the fraction passing a size selector with the following characteristics.

Aerodynamic diameter (unit density sphere)	Percent passing selector
2	90
2.5	75
3.5	50
5.0	25
10	0

Precautionary Measures: Please refer to other sections and subsections of this MSDS.

Engineering Controls: Good general ventilation should be sufficient to control airborne levels. Ensure adequate ventilation, especially in confined areas. Local ventilation of emission sources may be necessary to maintain ambient concentrations below recommended exposure limits. If dry-sanding, provide sufficient mechanical ventilation to maintain exposure below PEL and TLV. Wet sanding is recommended to avoid generation of dust.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment. A NIOSH-approved air purifying respirator with an organic vapor cartridge or canister may be necessary under certain circumstances where

airborne concentrations are expected to exceed exposure limits. A respiratory protection program that meets the OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. Use an approved NIOSH/OSHA respirator if dry sanded.

National Institute for Occupational Safety and Health (NIOSH) has recommended that the permissible exposure limit be changed to 50 micrograms respirable free silica per cubic meter of air (0.05 mg/m³) as determined by a full shift sample up to 10-hour work shift.

Skin Protection: Rubber gloves.

Eye Protection: Goggles or safety glasses with side shields.

Other protective equipment: Not required under normal use.

Hygienic Practices: Wash hands before breaks and at the end of workday. Remove and wash contaminated clothing before re-use.

Important: Listed Permissible Exposure Levels (PEL) are from the U.S. Dept. of Labor OSHA Final Rule Limits (CFR 29 1910.1000); these limits may vary between states.

Note: An employee's skin exposure to substances having a "YES" in the "SKIN" column in the table above shall be prevented or reduced to the extent necessary under the circumstances through the use of gloves, coveralls, goggles or other appropriate personal protective equipment, engineering controls or work practices.

Section 9 - Physical And Chemical Properties

Boiling Range:	Not Established	Vapor Density:	Heavier Than Air
Odor:	Slight	Odor Threshold:	Not Established
Color:	Gray	Evaporation Rate:	Slower Than n-Butyl Acetate
Solubility in H₂O:	Not Established	Specific Gravity:	1.8
Freeze Point:	Not Established	pH:	Between 7.0 and 12.9
Vapor Pressure:	Not Established	Viscosity:	Not Established
Physical State:	Paste	Flammability:	Non-Flammable
Flash Point, F:	Greater than 200 degrees	Method:	(Seta Closed Cup)
Lower Explosive Limit, %:	Not Established	Upper Explosive Limit, %:	Not Established

When reported, vapor pressure of this product has been calculated theoretically based on its constituent makeup and has not been determined experimentally.

(See section 16 for abbreviation legend)

Section 10 - Stability And Reactivity

Conditions To Avoid: Excessive heat and freezing.

Incompatibility: Incompatible with strong bases and oxidizing agents.

Hazardous Decomposition Products: Normal decomposition products, i.e., CO_x, NO_x.

Hazardous Polymerization: Hazardous polymerization will not occur under normal conditions.

Stability: Stable under recommended storage conditions.

Section 11 - Toxicological Information

Product LD₅₀: Not Established

Product LC₅₀: Not Established

CASRN	Chemical Name	LD ₅₀	LC ₅₀
107-21-1	Ethylene glycol	Rat:4700 mg/kg	Rat:10876 mg/kg

Significant Data with Possible Relevance to Humans: None.

Section 12 - Ecological Information

Ecological Information: Ecological injuries are not known or expected under normal use.

Section 13 - Disposal Information

Disposal Information: Dispose of material in accordance with all federal, state and local regulations. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste.

EPA Waste Code if Discarded (40 CFR Section 261): None.

Section 14 - Transportation Information

DOT Proper Shipping Name:	Not Regulated	Packing Group:	N.A.
DOT Technical Name:	N.A.	Hazard Subclass:	N.A.
DOT Hazard Class:	N.A.	DOT UN/NA Number:	None

Note: The shipping information provided is applicable for domestic ground transport only. Different categorization may apply if shipped via other modes of transportation and/or to non-domestic destinations.

Section 15 - Regulatory Information

CERCLA - SARA Hazard Category:

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Immediate Health Hazard, Chronic Health Hazard

SARA Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

None.

Toxic Substances Control Act:

All ingredients in this product are either on TSCA inventory list, or otherwise exempt.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

None.

New Jersey Right-to-Know:

The following materials are non-hazardous, but are among the top five components in this product:

Chemical Name	CAS Number

Non-Hazardous Polymer	Proprietary
Water	7732-18-5

Pennsylvania Right-to-Know:

The following non-hazardous ingredients are present in the product at greater than 3%:

Chemical Name	CAS Number
Non-Hazardous Polymer	Proprietary
Water	7732-18-5

California Proposition 65:

WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Section 16 - Other Information

HMIS Ratings:

Health: 1	Flammability: 1	Reactivity: 0	Personal Protection: X
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Volatile Organic Compounds (VOC), less water less exempts: g/L: 60.9 **lb/gal:** 0.5 **wt:wt%:** 2.6

Volatile Organic Compounds (VOC), less water less exempts, less LVP -VOCs: **wt:wt%:** 0.1

REASON FOR REVISION: Periodic Update

Legend:	N.A. – Not Applicable	ACGIH – American Conference of Governmental Industrial Hygienists
	N.E. – Not Established	SARA – Superfund Amendments and Reauthorization Act of 1986
	N.D. – Not Determined	NJRTK – New Jersey Right-to-Know Law
	VOC – Volatile Organic Compound	OSHA – Occupational Safety and Health Administration
	PEL – Permissible Exposure Limit	HMIS – Hazardous Materials Identification System
	TLV – Threshold Limit Value	NTP – National Toxicology Program
	CEIL – Ceiling Exposure Limit	STEL – Short Term Exposure Limit
	LD50 – Lethal Dose 50	LC50 – Lethal Concentration 50
	F – Degree Fahrenheit	MSDS – Material Safety Data Sheet
	C – Degree Celsius	CASRN – The Chemical Abstracts Service Registry Number

ACE Hardware Corporation believes the data and statements contained herein are accurate as of the date hereof. They are offered in good faith as typical values and not as a product specification. **NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE WITH REGARD TO THE INFORMATION HEREIN PROVIDED OR THE PRODUCT TO WHICH THE INFORMATION REFERS.** Since this document is intended only as a guide to the appropriate use and precautionary handling of the referenced product by a properly trained person, it is therefore the responsibility of the user to (i) review the recommendations with due consideration for the specific context of the intended use and (ii) determine if they are appropriate.

<End of MSDS>

1. Identification

Product identifier	HYDROCHLORIC ACID, 37%, REAGENT (ACS)	
Other means of identification		
Product code	625	
Recommended use	manufacture of other chemical products professional, scientific and technical activities: scientific research and development	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Manufacturer		
Company name	GFS Chemicals, Inc.	
Address	P.O. Box 245 Powell, OH 43065 United States	
Telephone	Phone	740-881-5501
	Toll Free	800-858-9682
	Fax	740-881-5989
Website	www.gfschemicals.com	
E-mail	service@gfschemicals.com	
Emergency phone number	Emergency Assistance	Chemtrec 800-424-9300

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Danger	
Hazard statement	Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.	
Precautionary statement		
Prevention	Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. 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. 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. Wash contaminated clothing before reuse.	
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.	
Disposal	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	None.	

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
WATER		7732-18-5	63
HYDROGEN CHLORIDE		7647-01-0	37

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	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.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Coughing.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	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.

5. Fire-fighting measures

Suitable extinguishing media	Use extinguishing agent suitable for type of surrounding fire. Water.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Irritating, corrosive and/or toxic gases or fumes will be released during a fire.
Special 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.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. This product is miscible in water. Should not be released into the environment. Clean up in accordance with all applicable regulations. Large Spills: Dike the spilled material, where this is possible. Neutralize with lime or soda ash. Neutralize the spilled material before disposal. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
Environmental precautions	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
HYDROGEN CHLORIDE (CAS 7647-01-0)	Ceiling	7 mg/m ³
		5 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
HYDROGEN CHLORIDE (CAS 7647-01-0)	Ceiling	2 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
HYDROGEN CHLORIDE (CAS 7647-01-0)	Ceiling	7 mg/m ³
		5 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) 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. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection. Wear safety glasses with side shields (or goggles) and a face shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. Provide eyewash station and safety shower.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Use a chemical cartridge respirator for concentrations exceeding the Occupational Exposure Limit.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower.

9. Physical and chemical properties

Appearance

Clear.

Physical state

Liquid.

Form

Liquid.

Color

Colorless.

Odor

Pungent.

Odor threshold

Not available.

pH

1.01 (0.1 N Solution)

Melting point/freezing point

-101.2 °F (-74 °C)

Initial boiling point and boiling range

228.2 °F (109 °C) @ 20% HCl

Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	190 torr
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Completely miscible with water.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	1.18 g/cm ³
Explosive properties	Not explosive.
Molecular formula	HCl
Molecular weight	36.46
Oxidizing properties	Not oxidizing.
Percent volatile	100 %
Specific gravity	1.18

10. Stability and reactivity

Reactivity	Reacts violently with strong alkaline substances. This product may react with reducing agents.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials. Do not mix with other chemicals.
Incompatible materials	Bases. Reducing agents. Contact with most metals produces highly flammable hydrogen gas. Amines.
Hazardous decomposition products	Hydrogen chloride.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns. Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Coughing.

Information on toxicological effects

Acute toxicity In high concentrations, vapors are anesthetic and may cause headache, fatigue, dizziness and central nervous system effects. Harmful if swallowed. May cause respiratory irritation.

Product	Species	Test Results
HYDROCHLORIC ACID		
Acute		
Dermal		
LD50	Mouse	3916 mg/kg
Inhalation		
LC50	Mouse	2995 mg/l 2995 mg/l, 1 Hours estimated 2995 ppm, 1 Hours estimated
	Rat	8443 ppm, 1 Hours estimated 8443 mg/l, 1 Hours estimated 3124 mg/l 1 hour
Oral		
LD50	Rabbit	900 mg/kg
Components	Species	Test Results

HYDROGEN CHLORIDE (CAS 7647-01-0)		
Acute		
Dermal		
LD50	Mouse	1449 mg/kg
Inhalation		
LC50	Mouse	1108 ppm, 1 Hours 1108 mg/l, 1 Hours
	Rat	3124 ppm, 1 Hours 3124 mg/l, 1 Hours
Oral		
LD50	Rabbit	900 mg/kg
Other		
LD50	Mouse	1449 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes severe skin burns and eye damage.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization Irritating to skin.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

HYDROGEN CHLORIDE (CAS 7647-01-0) 3 Not classifiable as to carcinogenicity to humans.

US OSHA Hazard Categories (1)

Not regulated.

US OSHA Hazard Categories (10)

Not regulated.

US OSHA Hazard Categories (2)

Not regulated.

US OSHA Hazard Categories (3)

Not regulated.

US OSHA Hazard Categories (4)

Not regulated.

US OSHA Hazard Categories (5)

Not regulated.

US OSHA Hazard Categories (6)

Not regulated.

US OSHA Hazard Categories (7)

Not regulated.

US OSHA Hazard Categories (8)

Not regulated.

US OSHA Hazard Categories (9)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.**Specific target organ toxicity - single exposure** May cause respiratory irritation.**Specific target organ toxicity - repeated exposure** Not classified.**Aspiration hazard** Not an aspiration hazard.**Chronic effects** Prolonged inhalation may be harmful.**12. Ecological information****Ecotoxicity** Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Product	Species	Test Results
HYDROCHLORIC ACID		
Aquatic		
Fish	LC50	762.1622 mg/l, 96 hours estimated
Components	Species	Test Results
HYDROGEN CHLORIDE (CAS 7647-01-0)		
Aquatic		
Fish	LC50	Western mosquitofish (Gambusia affinis) 282 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability None known.**Bioaccumulative potential** No data available.**Mobility in soil** No data available.**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.**13. Disposal considerations****Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations. Neutralize with soda ash/slaked lime and discharge to sewer with lots of water.**Local disposal regulations** Dispose in accordance with all applicable regulations.**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.**14. Transport information****DOT**

UN number	UN1789
UN proper shipping name	Hydrochloric acid
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	II

Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	A3, A6, B3, B15, IB2, N41, T8, TP2, TP12
Packaging exceptions	154
Packaging non bulk	202
Packaging bulk	242

IATA

UN number	UN1789
UN proper shipping name	Hydrochloric acid
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	8L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN1789
UN proper shipping name	HYDROCHLORIC ACID
Transport hazard class(es)	
Class	8
Subsidiary risk	•
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

DOT



IATA



15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated.

Material name: HYDROCHLORIC ACID, 37%, REAGENT (ACS)

CERCLA Hazardous Substance List (40 CFR 302.4)

HYDROGEN CHLORIDE (CAS 7647-01-0) Listed.

SARA 304 Emergency release notification

HYDROGEN CHLORIDE (CAS 7647-01-0) 5000 LBS

US OSHA Hazard Categories (1)

Not regulated.

US OSHA Hazard Categories (2)

Not regulated.

US OSHA Hazard Categories (3)

Not regulated.

US OSHA Hazard Categories (4)

Not regulated.

US OSHA Hazard Categories (5)

Not regulated.

US OSHA Hazard Categories (6)

Not regulated.

US OSHA Hazard Categories (7)

Not regulated.

US OSHA Hazard Categories (8)

Not regulated.

US OSHA Hazard Categories (9)

Not regulated.

US OSHA Hazard Categories (10)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
HYDROGEN CHLORIDE	7647-01-0	5000	500 lbs		

SARA 311/312 Hazardous chemical
No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
HYDROGEN CHLORIDE	7647-01-0	37

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

HYDROGEN CHLORIDE (CAS 7647-01-0)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

HYDROGEN CHLORIDE (CAS 7647-01-0)

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

HYDROGEN CHLORIDE (CAS 7647-01-0) 6545

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

HYDROGEN CHLORIDE (CAS 7647-01-0) 20 %WV

DEA Exempt Chemical Mixtures Code Number

HYDROGEN CHLORIDE (CAS 7647-01-0) 6545

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)
Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

HYDROGEN CHLORIDE (CAS 7647-01-0)

US. Massachusetts RTK - Substance List

HYDROGEN CHLORIDE (CAS 7647-01-0)

US. New Jersey Worker and Community Right-to-Know Act

HYDROGEN CHLORIDE (CAS 7647-01-0)

US. Pennsylvania Worker and Community Right-to-Know Law

HYDROGEN CHLORIDE (CAS 7647-01-0)

US. Rhode Island RTK

HYDROGEN CHLORIDE (CAS 7647-01-0)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date February-14-2013

Revision date April-05-2016

Version # 02

Disclaimer 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. GFS Chemicals, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information This document has undergone significant changes and should be reviewed in its entirety.

There was a problem getting the SDS for -

Product Name: Hydrochloric Acid 7% – 35%

CAS Number:

Manufacturer: BASIC CHEMICAL SOLUTIONS

SDS Date: 10/10/2003

To complete your binder, please upload a different SDS for this product or remove the SDS from your binder.

We are currently researching solutions to this issue. Thank you for your patience.

The document may be a secured document. Delete the existing record. Unsecure the document and upload again

SAFETY DATA SHEET

RAMUC[®]

KOP-COAT

Revision Date 07-Oct-2015
Version 1

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name Ramuc Type EP Hi-Build Epoxy Beach Beige - Part A
Product code 912235502

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Paint
Restrictions on use Read label instructions and SDS

1.3 Details of the supplier of the safety data sheet

Supplier Kop-Coat, Inc.
RAMUC
36 Pine Street
Rockaway, NJ 07866
1-800-221-4466

1.4 Emergency telephone number

Emergency telephone number Chemtrec: +1 703-527-3887 ex-USA
Chemtrec: 1-800-424-9300 USA

2. Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910.1200

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Carcinogenicity	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2
Flammable liquids	Category 3

2.2 Label elements

Signal Word

Warning

Hazard Statements

Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
Suspected of causing cancer
Suspected of damaging fertility or the unborn child
May cause damage to organs through prolonged or repeated exposure
Flammable liquid and vapor

**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wear protective gloves/protective clothing/eye protection/face protection
 Wash face, hands and any exposed skin thoroughly after handling
 Contaminated work clothing must not be allowed out of the workplace
 Do not breathe dust/fume/gas/mist/vapors/spray
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Keep container tightly closed
 Ground/Bond container and receiving equipment
 Use explosion-proof electrical/ventilating/lighting/equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
 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 skin irritation or rash occurs: Get medical advice/attention
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
 Wash contaminated clothing before reuse
 In case of fire: Use CO₂, dry chemical, or foam to extinguish

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

2.3. Other Hazards Hazards not otherwise classified (HNOC)

Not Applicable

2.4 Other information

Not Applicable

Unknown Acute Toxicity

< 1% of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/Information on Ingredients

Substance

Not applicable

Mixture

Chemical Name	CAS-No	Weight %
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)	25068-38-6	40 - 50
Titanium dioxide	13463-67-7	20 - 30
Talc	14807-96-6	10 - 20
Xylene	1330-20-7	5 - 10

Ethylbenzene	100-41-4	1 - 5
Calcium carbonate (Limestone)	1317-65-3	1 - 5
ALUMINUM OXIDE	1344-28-1	1 - 5
Methyl isobutyl ketone	108-10-1	< 1
Toluene	108-88-3	< 1

The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First aid measures

4.1 Description of first-aid measures

General advice	For further assistance, contact your local Poison Control Center.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Call a poison control center or doctor for treatment advice.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Call a poison control center or doctor for treatment advice.
Inhalation	Move victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a poison control center or doctor for treatment advice.
Ingestion	Rinse mouth. Do NOT induce vomiting. If a person vomits when lying on his back, place him in the recovery position. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	See Section 2.2, Label Elements and/or Section 11, Toxicological effects.
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4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	There is no specific antidote for effects from overexposure to this material. Treat symptomatically.
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5. Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media

Foam. Carbon dioxide (CO₂). Dry chemical. Water spray or fog. Water may be used to cool and prevent the rupture of containers that are exposed to the heat from a fire.

Unsuitable Extinguishing Media Water may be unsuitable for extinguishing fires.

5.2 Special hazards arising from the substance or mixture

Special Hazard

Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks) Vapors may travel to areas away from work site before igniting/flashing back to vapor source Thermal decomposition can lead to release of irritating gases and vapors

Hazardous Combustion Products Possible formation of carbon oxides, nitrogen oxides, and hazardous organic compounds.

Explosion Data

Sensitivity to Mechanical Impact Not sensitive.

Sensitivity to Static Discharge Yes.

5.3 Advice for firefighters

Evacuate personnel to safe areas. Move non-burning material, as feasible, to a safe location as soon as possible. As in any fire,

wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers with flooding quantities of water until well after fire is out. Thoroughly decontaminate all protective equipment after use. DO NOT extinguish a fire resulting from the flow of flammable liquid until the flow of the liquid is effectively shut off. This precaution will help prevent the accumulation of an explosive vapor-air mixture after the initial fire is extinguished.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. Refer to protective measures listed in sections 7 and 8. Avoid exceeding of the given occupational exposure limits (see section 8). Personal protection needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the training and the expertise of employees in the area responding to the spill.

6.2 Environmental precautions

Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional Ecological information.

6.3 Methods and materials for containment and cleaning up

Methods for Containment

Dike far ahead of liquid spill for later disposal. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Ground and bond containers when transferring material. Take precautionary measures against static discharges. Use non-sparking tools and equipment.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Ensure adequate ventilation. Ground and bond containers when transferring material. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Do not eat, drink or smoke when using this product. Use according to package label instructions. Empty containers may retain product residue or vapor. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose container to heat, flame, sparks, static electricity, or other sources of ignition. No smoking.

Hygiene measures

Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep in properly labeled containers. Keep away from food, drink and animal feedingstuffs. Store in accordance with local regulations.

Materials to Avoid

No materials to be especially mentioned.

8. Exposure controls/personal protection

8.1 Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	British Columbia	Alberta	Quebec	Ontario TWA EV

Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust	TWA: 10 mg/m ³ TWA: 3 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³
Talc 14807-96-6	TWA: 2 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable fraction	TWA: 20 mppcf if 1% Quartz or more, use Quartz limit	TWA: 2 mg/m ³	TWA: 2 mg/m ³	TWA: 3 mg/m ³	TWA: 2 mg/m ³
Xylene 1330-20-7	STEL: 150 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m ³	TWA: 100 ppm STEL: 150 ppm	TWA: 100 ppm TWA: 434 mg/m ³ STEL: 150 ppm STEL: 651 mg/m ³	TWA: 100 ppm TWA: 434 mg/m ³ STEL: 150 ppm STEL: 651 mg/m ³	TWA: 100 ppm STEL: 150 ppm
Ethylbenzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³	TWA: 20 ppm	TWA: 100 ppm TWA: 434 mg/m ³ STEL: 125 ppm STEL: 543 mg/m ³	TWA: 100 ppm TWA: 434 mg/m ³ STEL: 125 ppm STEL: 543 mg/m ³	TWA: 20 ppm
Calcium carbonate (Limestone) 1317-65-3	-	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ TWA: 3 mg/m ³ STEL: 20 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	
ALUMINUM OXIDE 1344-28-1	TWA: 1 mg/m ³ respirable fraction	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction	TWA: 1.0 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 1 mg/m ³
Methyl isobutyl ketone 108-10-1	STEL: 75 ppm TWA: 20 ppm	TWA: 100 ppm TWA: 410 mg/m ³	TWA: 20 ppm STEL: 75 ppm	TWA: 50 ppm TWA: 205 mg/m ³ STEL: 75 ppm STEL: 307 mg/m ³	TWA: 50 ppm TWA: 205 mg/m ³ STEL: 75 ppm STEL: 307 mg/m ³	TWA: 20 ppm STEL: 75 ppm
Toluene 108-88-3	TWA: 20 ppm	TWA: 200 ppm Ceiling: 300 ppm	TWA: 20 ppm Adverse reproductive effect	TWA: 50 ppm TWA: 188 mg/m ³ Skin	TWA: 50 ppm TWA: 188 mg/m ³ Skin	TWA: 20 ppm

8.2 Appropriate engineering controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Use adequate ventilation to maintain airborne concentrations at levels below permissible or recommended occupational exposure limits.

8.3 Individual protection measures, such as personal protective equipment

Eye/Face Protection

Safety glasses with side-shields. If splashes are likely to occur, wear: Tightly fitting safety goggles. Face-shield.

Skin and body protection

Solvent-resistant gloves. Nitrile rubber. Neoprene gloves. Impervious butyl rubber gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Wear suitable protective clothing. Remove and wash contaminated clothing before re-use.

Respiratory protection

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

See section 7 for more information

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	No information available
Color	Beige
Odor	Solvent
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Methods</u>
pH		No information available
Melting/freezing point		No information available
Boiling point/boiling range	114-261	
Flash Point	26 °C / 79 °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
Specific Gravity		No information available
Water solubility		No information available
Solubility in other solvents		No information available
Partition coefficient		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Viscosity, kinematic	> 22 mm ² /s	
Viscosity, dynamic		No information available
Explosive properties		No information available
Oxidizing Properties		No information available

9.2 Other information

Volatile organic compounds (VOC) content	258 g/L
Density	12.04 lb/gal

10. Stability and Reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to Avoid

Keep away from heat, sparks and flames.

10.5 Incompatible Materials

No materials to be especially mentioned.

10.6 Hazardous Decomposition Products

None under normal use conditions. Thermal decomposition can lead to release of irritating gases and vapors.

11. Toxicological information

11.1 Acute toxicity

Numerical measures of toxicity: Product Information

The following values are calculated based on chapter 3.1 of the GHS document

Unknown Acute Toxicity < 1% of the mixture consists of ingredient(s) of unknown toxicity

Oral LD50	13,611.00 mg/kg
Dermal LD50	41,754.00 mg/kg
LC50 (Vapor)	96.00 mg/l

Numerical measures of toxicity: Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) 25068-38-6	11400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-
Titanium dioxide 13463-67-7	10000 mg/kg (Rat)	-	-
Xylene 1330-20-7	3500 mg/kg (Rat)	> 4350 mg/kg (Rabbit)	= 29.08 mg/L (Rat) 4 h
Ethylbenzene 100-41-4	3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h
ALUMINUM OXIDE 1344-28-1	5000 mg/kg (Rat)	-	-
Methyl isobutyl ketone 108-10-1	2080 mg/kg (Rat)	= 3000 mg/kg (Rabbit)	> 2000 ppm (Rat) 4 h
Toluene 108-88-3	2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 28.1 mg/L (Rat) 4 h

11.2 Information on toxicological effects

Skin corrosion/irritation

Product Information

- No information available

Component Information

- No information available

Eye damage/irritation

Product Information

- No information available

Component Information

- No information available

Respiratory or skin sensitization

Product Information

- No information available

Component Information

- No information available

Germ cell mutagenicity

Product Information

- No information available

Component Information

- No information available

CarcinogenicityProduct Information

- The table below indicates whether each agency has listed any ingredient as a carcinogen

Component Information

- Contains a known or suspected carcinogen

Chemical Name	ACGIH	IARC	NTP	OSHA
Titanium dioxide 13463-67-7	-	Group 2B	-	
Ethylbenzene 100-41-4	-	Group 2B	-	
Methyl isobutyl ketone 108-10-1	-	Group 2B	-	

Reproductive toxicityProduct Information

- No information available

Component Information

- No information available

STOT - single exposure

No information available

STOT - repeated exposure

- No information available

Other adverse effectsProduct Information

- No information available

Component Information

- No information available

Aspiration hazardProduct Information

- No information available

Component Information

- No information available

12. Ecological information

12.1 Toxicity**Ecotoxicity**

No information available

1.3487 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Ecotoxicity effects

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Talc 14807-96-6	-	LC50: 96 h Brachydanio rerio 100 g/L semi-static	-
Xylene 1330-20-7	-	LC50: 96 h Pimephales promelas 23.53 - 29.97 mg/L static LC50: 96 h Cyprinus carpio 780 mg/L semi-static LC50: 96 h Cyprinus carpio 780 mg/L LC50: 96 h Poecilia reticulata 30.26 - 40.75 mg/L static LC50: 96 h Pimephales promelas 13.4 mg/L flow-through LC50: 96 h Oncorhynchus mykiss 2.661 - 4.093 mg/L static LC50: 96 h Oncorhynchus mykiss 13.5 - 17.3	EC50: 48 h water flea 3.82 mg/L LC50: 48 h Gammarus lacustris 0.6 mg/L

		mg/L LC50: 96 h <i>Lepomis macrochirus</i> 13.1 - 16.5 mg/L flow-through LC50: 96 h <i>Lepomis macrochirus</i> 19 mg/L LC50: 96 h <i>Lepomis macrochirus</i> 7.711 - 9.591 mg/L static	
Ethylbenzene 100-41-4	EC50: 72 h <i>Pseudokirchneriella subcapitata</i> 4.6 mg/L EC50: 96 h <i>Pseudokirchneriella subcapitata</i> 438 mg/L EC50: 72 h <i>Pseudokirchneriella subcapitata</i> 2.6 - 11.3 mg/L static EC50: 96 h <i>Pseudokirchneriella subcapitata</i> 1.7 - 7.6 mg/L static	LC50: 96 h <i>Oncorhynchus mykiss</i> 11.0 - 18.0 mg/L static LC50: 96 h <i>Oncorhynchus mykiss</i> 4.2 mg/L semi-static LC50: 96 h <i>Pimephales promelas</i> 7.55 - 11 mg/L flow-through LC50: 96 h <i>Lepomis macrochirus</i> 32 mg/L static LC50: 96 h <i>Pimephales promelas</i> 9.1 - 15.6 mg/L static LC50: 96 h <i>Poecilia reticulata</i> 9.6 mg/L static	EC50: 48 h <i>Daphnia magna</i> 1.8 - 2.4 mg/L
Methyl isobutyl ketone 108-10-1	EC50: 96 h <i>Pseudokirchneriella subcapitata</i> 400 mg/L	LC50: 96 h <i>Pimephales promelas</i> 496 - 514 mg/L flow-through	EC50: 48 h <i>Daphnia magna</i> 170 mg/L
Toluene 108-88-3	EC50: 96 h <i>Pseudokirchneriella subcapitata</i> 433 mg/L EC50: 72 h <i>Pseudokirchneriella subcapitata</i> 12.5 mg/L static	LC50: 96 h <i>Pimephales promelas</i> 15.22 - 19.05 mg/L flow-through LC50: 96 h <i>Pimephales promelas</i> 12.6 mg/L static LC50: 96 h <i>Oncorhynchus mykiss</i> 5.89 - 7.81 mg/L flow-through LC50: 96 h <i>Oncorhynchus mykiss</i> 14.1 - 17.16 mg/L static LC50: 96 h <i>Oncorhynchus mykiss</i> 5.8 mg/L semi-static LC50: 96 h <i>Lepomis macrochirus</i> 11.0 - 15.0 mg/L static LC50: 96 h <i>Oryzias latipes</i> 54 mg/L static LC50: 96 h <i>Poecilia reticulata</i> 28.2 mg/L semi-static LC50: 96 h <i>Poecilia reticulata</i> 50.87 - 70.34 mg/L static	EC50: 48 h <i>Daphnia magna</i> 5.46 - 9.83 mg/L Static EC50: 48 h <i>Daphnia magna</i> 11.5 mg/L

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

Discharge into the environment must be avoided

Chemical Name	log Pow
Xylene 1330-20-7	3.15
Ethylbenzene 100-41-4	3.118
Methyl isobutyl ketone 108-10-1	1.19
Toluene 108-88-3	2.65

12.4 Mobility in soil

No information available.

12.5 Other adverse effects

No information available

13. Disposal Considerations

13.1 Waste treatment methods

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. Transport Information

Note	This product may be reclassified as Consumer Commodity, ORM-D, when shipped by ground; packaging quantity limitations apply. Limited quantity
DOT	Quarts and gallons ship as limited quantity.
MEX	no data available
IMDG	
Proper shipping name	UN1263, Paint, 3, PG III
IATA	
Proper shipping name	UN1263, Paint, 3, PG III

15. Regulatory information

15.1 International Inventories

TSCA	Complies
DSL	Complies
EINECS/ELINCS	-
ENCS	-
IECSC	-
KECL	-
PICCS	-
AICS	-
NZIoC	-

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

DSL - Canadian Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and 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

NZIoC - New Zealand Inventory of Chemicals

15.2 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	SARA 313 - Threshold Values %
Xylene 1330-20-7	1.0
Ethylbenzene 100-41-4	0.1
ALUMINUM OXIDE 1344-28-1	1.0

15.3 Pesticide Information

Not applicable

15.4 U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
Titanium dioxide - 13463-67-7	Carcinogen
Ethylbenzene - 100-41-4	Carcinogen
Methyl isobutyl ketone - 108-10-1	Carcinogen Developmental
Toluene - 108-88-3	Developmental Female Reproductive

16. Other information

NFPA	Health Hazard 2	Flammability 3	Instability 1	Physical and chemical hazards -
HMIS	Health Hazard 2*	Flammability 3	Physical Hazard 1	Personal protection X

Legend:

ACGIH (American Conference of Governmental Industrial Hygienists)

Ceiling (C)

DOT (Department of Transportation)

EPA (Environmental Protection Agency)

IARC (International Agency for Research on Cancer)

International Air Transport Association (IATA)

International Maritime Dangerous Goods (IMDG)

NIOSH (National Institute for Occupational Safety and Health)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

PEL (Permissible Exposure Limit)

Reportable Quantity (RQ)

Skin designation (S*)

STEL (Short Term Exposure Limit)

TLV® (Threshold Limit Value)

TWA (time-weighted average)

Revision Date 07-Oct-2015

Revision Note

No information available

Disclaimer

The information provided on this SDS 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 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 in the text.

End of Safety Data Sheet

SAFETY DATA SHEET

RAMUC[®]

KOP-COAT

Revision Date 07-Oct-2015
Version 1

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name Ramuc Type EP Hi-Build Immersion Activator - Part B
Product code 912230000

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Paint/Paint Related Material
Restrictions on use No information available

1.3 Details of the supplier of the safety data sheet

Supplier Kop-Coat, Inc.
RAMUC
36 Pine Street
Rockaway, NJ 07866
1-800-221-4466

1.4 Emergency telephone number

Emergency telephone number Chemtrec: +1 703-527-3887 ex-USA
Chemtrec: 1-800-424-9300 USA

2. Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910.1200

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2
Flammable liquids	Category 3

2.2 Label elements

Signal Word

Danger

Hazard Statements

Causes skin irritation
Causes serious eye damage
May cause an allergic skin reaction
Suspected of causing cancer
Suspected of damaging fertility or the unborn child
May cause damage to organs through prolonged or repeated exposure
Flammable liquid and vapor

**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wear protective gloves/protective clothing/eye protection/face protection
 Wash face, hands and any exposed skin thoroughly after handling
 Contaminated work clothing must not be allowed out of the workplace
 Do not breathe dust/fume/gas/mist/vapors/spray
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Keep container tightly closed
 Ground/Bond container and receiving equipment
 Use explosion-proof electrical/ventilating/lighting/equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
 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
 If skin irritation or rash occurs: Get medical advice/attention
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
 Wash contaminated clothing before reuse
 In case of fire: Use CO₂, dry chemical, or foam to extinguish

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

2.3. Other Hazards Hazards not otherwise classified (HNOC)

Not Applicable

2.4 Other information

Not Applicable

Unknown Acute Toxicity

21.6527% of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/Information on Ingredients

Substance

Not applicable

Mixture

Chemical Name	CAS-No	Weight %
Calcium carbonate (Limestone)	1317-65-3	50 - 60
Polyamide Resin	68424-41-9	20 - 30
Xylene	1330-20-7	10 - 20
n-Butanol	71-36-3	5 - 10
Ethylbenzene	100-41-4	1 - 5
TRIETHYLENETETRAMINE	112-24-3	< 1

Toluene	108-88-3	< 1
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The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First aid measures

4.1 Description of first-aid measures

General advice	Show this safety data sheet to the doctor in attendance. When symptoms persist or in all cases of doubt seek medical advice.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Call a physician or poison control center immediately.
Skin contact	Call a poison control center or doctor for treatment advice. Remove and wash contaminated clothing before re-use. Wash off immediately with plenty of water for at least 15 minutes.
Inhalation	Move victim to fresh air. Apply artificial respiration if victim is not breathing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel. Gently wipe or rinse the inside of the mouth with water. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	See Section 2.2, Label Elements and/or Section 11, Toxicological effects.
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4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	There is no specific antidote for effects from overexposure to this material. Treat symptomatically.
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5. Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media

Use CO₂, dry chemical, or foam. Water may be unsuitable for extinguishing fires. Water may be used to cool and prevent the rupture of containers that are exposed to the heat from a fire.

Unsuitable Extinguishing Media None.

5.2 Special hazards arising from the substance or mixture

Special Hazard

None known based on information supplied

Hazardous Combustion Products No information available.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

5.3 Advice for firefighters

Evacuate personnel to safe areas. Move non-burning material, as feasible, to a safe location as soon as possible. Fire fighters should be protected from potential explosion hazards while extinguishing the fire. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thoroughly decontaminate all protective equipment after use. Use water spray to cool fire-exposed containers. DO NOT extinguish a fire resulting from the flow of flammable liquid until the flow of the liquid is effectively shut off. This precaution will help prevent the accumulation of an explosive vapor-air mixture after the initial fire is extinguished.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Stop leak if you can do it without risk. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ensure adequate ventilation, especially in confined areas. Take precautionary measures against static discharges. Avoid contact with skin, eyes and inhalation of vapors. Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not allow material to contaminate ground water system. See Section 12 for additional Ecological information.

6.3 Methods and materials for containment and cleaning up

Methods for Containment

Dike to collect large liquid spills. 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). Prevent material from entering surface waters, drains or sewers, and soil. Spills of material which could reach surface waters must be reported to the United States Coast Guard National Response Center's toll free phone number (800) 424-8802.

Methods for cleaning up

Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Use clean non-sparking tools to collect absorbed material. Keep in suitable and closed containers for disposal.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Keep away from open flames, hot surfaces and sources of ignition. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only in well-ventilated areas. Do not eat, drink or smoke when using this product. Empty containers may retain product residue or vapor. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep away from heat and sources of ignition. Keep containers tightly closed in a cool, well-ventilated place.

Materials to Avoid

No materials to be especially mentioned.

8. Exposure controls/personal protection

8.1 Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	British Columbia	Alberta	Quebec	Ontario TWAEV
Calcium carbonate (Limestone) 1317-65-3	-	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ TWA: 3 mg/m ³ STEL: 20 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	
Xylene 1330-20-7	STEL: 150 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m ³	TWA: 100 ppm STEL: 150 ppm	TWA: 100 ppm TWA: 434 mg/m ³ STEL: 150 ppm STEL: 651 mg/m ³	TWA: 100 ppm TWA: 434 mg/m ³ STEL: 150 ppm STEL: 651 mg/m ³	TWA: 100 ppm STEL: 150 ppm
n-Butanol 71-36-3	TWA: 20 ppm	TWA: 100 ppm TWA: 300 mg/m ³	TWA: 15 ppm Ceiling: 30 ppm	TWA: 20 ppm TWA: 60 mg/m ³	Ceiling: 50 ppm Ceiling: 152 mg/m ³ Skin	TWA: 20 ppm

Ethylbenzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³	TWA: 20 ppm	TWA: 100 ppm TWA: 434 mg/m ³ STEL: 125 ppm STEL: 543 mg/m ³	TWA: 100 ppm TWA: 434 mg/m ³ STEL: 125 ppm STEL: 543 mg/m ³	TWA: 20 ppm
TRIETHYLENETETRA MINE 112-24-3	-	-				TWA: 0.5 ppm TWA: 3 mg/m ³ Skin
Toluene 108-88-3	TWA: 20 ppm	TWA: 200 ppm Ceiling: 300 ppm	TWA: 20 ppm Adverse reproductive effect	TWA: 50 ppm TWA: 188 mg/m ³ Skin	TWA: 50 ppm TWA: 188 mg/m ³ Skin	TWA: 20 ppm

8.2 Appropriate engineering controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Use adequate ventilation to maintain airborne concentrations at levels below permissible or recommended occupational exposure limits.

8.3 Individual protection measures, such as personal protective equipment

Eye/Face Protection

Wear chemical-resistant glasses and/or goggles and a face shield when eye and face contact is possible due to handling and processing of material.

Skin and body protection

Wear chemical resistant footwear and clothing such as gloves, an apron or a whole body suit as appropriate.

Respiratory protection

. NIOSH/MSHA approved respiratory protection should be worn if exposure is anticipated.

Hygiene measures

See section 7 for more information

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	No information available
Color	Clear Amber
Odor	Amine
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Methods</u>
pH	Not applicable	
Melting/freezing point		No information available
Boiling point/boiling range	100 °C / 212 °F	
Flash Point	28 °C / 82 °F	
Evaporation rate	< 1	
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
Specific Gravity	1.485	
Water solubility		No information available
Solubility in other solvents		No information available
Partition coefficient		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Viscosity, kinematic		No information available
Viscosity, dynamic		No information available
Explosive properties		No information available
Oxidizing Properties		No information available

9.2 Other information

Volatile organic compounds (VOC) content	342 g/L
Density	12.38 lb/gal

10. Stability and Reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to Avoid

Direct sources of heat.

10.5 Incompatible Materials

None known based on information supplied.

10.6 Hazardous Decomposition Products

Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

11. Toxicological information

11.1 Acute toxicity

Numerical measures of toxicity: Product Information

The following values are calculated based on chapter 3.1 of the GHS document

Unknown Acute Toxicity 21.6527% of the mixture consists of ingredient(s) of unknown toxicity

Oral LD50	5,835.00 mg/kg
Dermal LD50	16,113.00 mg/kg
LC50 (Vapor)	59.87 mg/l

Numerical measures of toxicity: Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Xylene 1330-20-7	3500 mg/kg (Rat)	> 4350 mg/kg (Rabbit)	= 29.08 mg/L (Rat) 4 h
n-Butanol 71-36-3	700 mg/kg (Rat)	= 3402 mg/kg (Rabbit)	> 8000 ppm (Rat) 4 h
Ethylbenzene 100-41-4	3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h
TRIETHYLENETETRAMINE 112-24-3	2500 mg/kg (Rat)	= 550 mg/kg (Rabbit)	-
Toluene 108-88-3	2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 28.1 mg/L (Rat) 4 h

11.2 Information on toxicological effects

Skin corrosion/irritation

Product Information

- No information available

Component Information

- No information available

Eye damage/irritation

Product Information

- No information available

Component Information

- No information available

Respiratory or skin sensitization

Product Information

- No information available

Component Information

- No information available

Germ cell mutagenicity

Product Information

- No information available

Component Information

- No information available

Carcinogenicity

Product Information

- The table below indicates whether each agency has listed any ingredient as a carcinogen

Component Information

- Contains a known or suspected carcinogen

Chemical Name	ACGIH	IARC	NTP	OSHA

Ethylbenzene 100-41-4	-	Group 2B	-	
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Reproductive toxicityProduct Information

- No information available

Component Information

- No information available

STOT - single exposure

No information available

STOT - repeated exposure

- No information available

Other adverse effectsProduct Information

- No information available

Component Information

- No information available

Aspiration hazardProduct Information

- No information available

Component Information

- No information available

12. Ecological information

12.1 Toxicity**Ecotoxicity**

No information available

21.6527 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Ecotoxicity effects

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Xylene 1330-20-7	-	LC50: 96 h Pimephales promelas 23.53 - 29.97 mg/L static LC50: 96 h Cyprinus carpio 780 mg/L semi-static LC50: 96 h Cyprinus carpio 780 mg/L LC50: 96 h Poecilia reticulata 30.26 - 40.75 mg/L static LC50: 96 h Pimephales promelas 13.4 mg/L flow-through LC50: 96 h Oncorhynchus mykiss 2.661 - 4.093 mg/L static LC50: 96 h Oncorhynchus mykiss 13.5 - 17.3 mg/L LC50: 96 h Lepomis macrochirus 13.1 - 16.5 mg/L flow-through LC50: 96 h Lepomis macrochirus 19 mg/L LC50: 96 h Lepomis macrochirus 7.711 - 9.591 mg/L static	EC50: 48 h water flea 3.82 mg/L LC50: 48 h Gammarus lacustris 0.6 mg/L
n-Butanol 71-36-3	EC50: 96 h Desmodesmus subspicatus 500 mg/L EC50: 72 h Desmodesmus subspicatus 500 mg/L	LC50: 96 h Pimephales promelas 1730 - 1910 mg/L static LC50: 96 h Pimephales promelas 1740 mg/L flow-through LC50: 96 h Lepomis macrochirus 100000 - 500000 µg/L static LC50: 96 h Pimephales promelas 1910000 µg/L static	EC50: 48 h Daphnia magna 1983 mg/L EC50: 48 h Daphnia magna 1897 - 2072 mg/L Static
Ethylbenzene	EC50: 72 h Pseudokirchneriella	LC50: 96 h Oncorhynchus mykiss	EC50: 48 h Daphnia magna 1.8 -

100-41-4	subcapitata 4.6 mg/L EC50: 96 h Pseudokirchneriella subcapitata 438 mg/L EC50: 72 h Pseudokirchneriella subcapitata 2.6 - 11.3 mg/L static EC50: 96 h Pseudokirchneriella subcapitata 1.7 - 7.6 mg/L static	11.0 - 18.0 mg/L static LC50: 96 h Oncorhynchus mykiss 4.2 mg/L semi-static LC50: 96 h Pimephales promelas 7.55 - 11 mg/L flow-through LC50: 96 h Lepomis macrochirus 32 mg/L static LC50: 96 h Pimephales promelas 9.1 - 15.6 mg/L static LC50: 96 h Poecilia reticulata 9.6 mg/L static	2.4 mg/L
TRIETHYLENETETRAMINE 112-24-3	EC50: 72 h Desmodesmus subspicatus 2.5 mg/L EC50: 72 h Pseudokirchneriella subcapitata 20 mg/L EC50: 96 h Pseudokirchneriella subcapitata 3.7 mg/L	LC50: 96 h Poecilia reticulata 570 mg/L semi-static LC50: 96 h Pimephales promelas 495 mg/L	EC50: 48 h Daphnia magna 31.1 mg/L
Toluene 108-88-3	EC50: 96 h Pseudokirchneriella subcapitata 433 mg/L EC50: 72 h Pseudokirchneriella subcapitata 12.5 mg/L static	LC50: 96 h Pimephales promelas 15.22 - 19.05 mg/L flow-through LC50: 96 h Pimephales promelas 12.6 mg/L static LC50: 96 h Oncorhynchus mykiss 5.89 - 7.81 mg/L flow-through LC50: 96 h Oncorhynchus mykiss 14.1 - 17.16 mg/L static LC50: 96 h Oncorhynchus mykiss 5.8 mg/L semi-static LC50: 96 h Lepomis macrochirus 11.0 - 15.0 mg/L static LC50: 96 h Oryzias latipes 54 mg/L static LC50: 96 h Poecilia reticulata 28.2 mg/L semi-static LC50: 96 h Poecilia reticulata 50.87 - 70.34 mg/L static	EC50: 48 h Daphnia magna 5.46 - 9.83 mg/L Static EC50: 48 h Daphnia magna 11.5 mg/L

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

Discharge into the environment must be avoided

Chemical Name	log Pow
Xylene 1330-20-7	3.15
n-Butanol 71-36-3	0.785
Ethylbenzene 100-41-4	3.118
TRIETHYLENETETRAMINE 112-24-3	-1.4
Toluene 108-88-3	2.65

12.4 Mobility in soil

No information available.

12.5 Other adverse effects

No information available

13. Disposal Considerations

13.1 Waste treatment methods

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

14. Transport Information

Note	ORM-D Limited quantity
DOT	Quarts and gallons ship as limited quantity.
UN/ID No	UN1263
Proper shipping name	Paint
Hazard class	3
Packing Group	III
MEX	no data available
IMDG	
Proper shipping name	UN1263, Paint, 3, PG III
IATA	
Proper shipping name	UN1263, Paint, 3, PG III

15. Regulatory information

15.1 International Inventories

TSCA	Complies
DSL	Complies
EINECS/ELINCS	-
ENCS	-
IECSC	-
KECL	-
PICCS	-
AICS	Complies
NZIoC	-

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

DSL - Canadian Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and 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

NZIoC - New Zealand Inventory of Chemicals

15.2 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	SARA 313 - Threshold Values %
Xylene 1330-20-7	1.0
n-Butanol 71-36-3	1.0
Ethylbenzene 100-41-4	0.1

15.3 Pesticide Information

Not applicable

15.4 U.S. State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
Ethylbenzene - 100-41-4	Carcinogen
Toluene - 108-88-3	Developmental Female Reproductive

16. Other information

NFPA	Health Hazard 2	Flammability 3	Instability 0	Physical and chemical hazards -
HMIS	Health Hazard 2*	Flammability 3	Physical Hazard 0	Personal protection X

Legend:

ACGIH (American Conference of Governmental Industrial Hygienists)

Ceiling (C)

DOT (Department of Transportation)

EPA (Environmental Protection Agency)

IARC (International Agency for Research on Cancer)

International Air Transport Association (IATA)

International Maritime Dangerous Goods (IMDG)

NIOSH (National Institute for Occupational Safety and Health)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

PEL (Permissible Exposure Limit)

Reportable Quantity (RQ)

Skin designation (S*)

STEL (Short Term Exposure Limit)

TLV® (Threshold Limit Value)

TWA (time-weighted average)

Prepared By Kop-Coat, Inc.
Regulatory Affairs

Revision Date 07-Oct-2015

Revision Note
No information available

Disclaimer

The information provided on this SDS 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 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 in the text.

End of Safety Data Sheet

There was a problem getting the SDS for -

Product Name: BCS SODIUM HYPOCHLORITE SOLUTION (5 - 12.5%)

CAS Number:

Manufacturer: BASIC CHEMICAL SOLUTIONS

SDS Date: 3/5/2009

To complete your binder, please upload a different SDS for this product or remove the SDS from your binder.

We are currently researching solutions to this issue. Thank you for your patience.

The document may be a secured document. Delete the existing record. Unsecure the document and upload again

There was a problem getting the SDS for -

Product Name: Sun Large Tablets

CAS Number:

Manufacturer: ASEPSIS, INC.

SDS Date: 11/10/2010

To complete your binder, please upload a different SDS for this product or remove the SDS from your binder.

We are currently researching solutions to this issue. Thank you for your patience.

The document may be a secured document. Delete the existing record. Unsecure the document and upload again