

MATERIAL SAFETY DATA SHEET (MSDS)

#182 (1)

MANUFACTURER/DISTRIBUTOR NAME: H & S MANUFACTURING, INC.
 ADDRESS: 727 EAST BROADWAY
 WILLISTON, ND 58801
 EMERGENCY TELEPHONE NUMBER: CONTACT YOUR LOCAL POISON INFORMATION CENTER
 PHONE (24 hr) TECHNICAL (800) 827-3091
 EFFECTIVE DATE: 5/1/96

PRODUCT NAME: SPRINGTIME CLEAN-UP ABSORBENT POWDER

DIATOMACEOUS EARTH	<u>INGREDIENTS</u>	HMIS: Health 0/0
CAS REG. NO.: NOT EST.	PERCENTAGE: 15-35%	Fire 0/0
TLV: 10mg/M3		Reactivity 0/0
		Special 0/0

PHYSICAL DATA

BOILING POINT: N/A SPECIFIC GRAVITY: N/A VAPOR PRESSURE: N/A
 PERCENT VOLATILE BY VOLUME: 0 VAPOR DENSITY: N/A
 EVAPORATION RATE: N/A
 SOLUBILITY IN WATER: NEGLIGIBLE
 APPEARANCE AND ODOR: GRANULAR WHITE SOLID WITH FRAGRANT ODOR

FIRE AND EXPLOSIVE DATA

FLASH POINT: NONE FLAMMABLE LIMITS: N/A
 LEL: N/A UEL: N/A
 EXTINGUISHING MEDIA: WATER, CO2, FOAM, DRY CHEMICAL
 SPECIAL FIRE FIGHTING PROCEDURES: AVOID STRONG OXIDIZING AGENTS
 UNUSUAL FIRE AND EXPLOSION HAZARDS: PRODUCT BECOMES SLIPPERY WHEN WET DUE TO GEL FORMATION

REACTIVE HAZARDS

PRODUCT STABLE: YES
 CONDITIONS TO AVOID: KEEP AWAY FROM HEAT AND OPEN FLAMES
 INCOMPATIBILITY: HYDROFLUORIC ACID, STRONG OXIDIZING AGENTS
 HAZARDOUS DECOMPOSITION PRODUCTS: NONE
 HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
 CONDITIONS TO AVOID: HIGH DUST CONCENTRATIONS

HEALTH HAZARDS

EFFECTS OF OVEREXPOSURE: MAY CAUSE TEMPORARY IRRITATION OR INFLAMMATION OF THE EYE, NOSE AND BRONCHI.

FIRST AID PROCEDURE

INHALATION: REMOVE PERSON TO FRESH AIR.
 SKIN OR EYE CONTACT: FLUSH WITH RUNNING WATER FOR SEVERAL MINUTES.
 INGESTION: DRINK LARGE QUANTITY OF WATER. DO NOT INDUCE VOMITING. SEE A PHYSICIAN.

HANDLING PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: VACUUM DRY SPILL. IF SPILL BECAME WET AND GELLED, SHOVEL UP OR HOSE IT DOWN WITH COPIOUS AMOUNTS OF WATER.
 SURFACE UPON WHICH MATERIAL HAS BEEN APPLIED WILL BECOME SLIPPERY WHEN WET.
 WASTE DISPOSAL METHOD: COMPLY WITH LOCAL, STATE AND FEDERAL REGULATIONS. NO MAJOR PRECAUTIONS.
 RCPA: NON-HAZARDOUS
 PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: STORE IN COOL, DRY PLACE TO PROTECT PRODUCT FROM MOISTURE. KEEP OUT OF REACH OF CHILDREN. OPERATORS APPLYING LARGE AMOUNTS OF PRODUCT SHOULD WEAR APPROVED DUST RESPIRATORS AND GOGGLES.

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE): FOR USE WITH LARGE AMOUNTS OF MATERIAL. WEAR NIOSH APPROVED RESPIRATOR AS REQUIRED.
 VENTILATION: MECHANICAL EXHAUST IS ADEQUATE. PROTECTIVE GLOVES: NOT REQUIRED.
 EYE PROTECTION: WHEN APPLYING LARGE AMOUNTS OF MATERIAL, USE APPROVED GLOVES.
 OTHER PROTECTIVE EQUIPMENT: NOT REQUIRED.

PRODUCT INFORMATION**CHEMICAL NAME:** Calcium hypochlorite.**SYNONYMS:**

Calcium oxychloride, bleaching powder, chlorinated lime, granulated chlorinem, and Chloryte 65%.

CHEMICAL FAMILY: Salt of hypochlorous acid.**MOLECULAR FORMULA:** $\text{Ca}(\text{OCl})_2$ **SHIPPING NAME:** Calcium hypochlorite.**PIN - (UN/NA):** UN1748 Cl5.1(9.2) P.G.II**WHMIS:** Exempt (P.C.P. regulated).**PRODUCT USE:**

Disinfection in swimming pools and drinking water supplies; treatment of industrial cooling water; slime control; odour control; sewage and waste water treatment.

MANUFACTURER: Saskatoon Chemicals Ltd.

Box 1586

Saskatoon, SK S7K 3R3

EMERGENCY TELEPHONE NUMBER: (306) 931-7767**SUPPLIER:** PrairieChem Inc.

231 Robin Crescent

Saskatoon, SK S7L 6M8

EMERGENCY TELEPHONE NUMBER: (306) 664-2522**HAZARDOUS INGREDIENTS**

INGREDIENTS:	WEIGHT %	C.A.S. REGISTRY NUMBER:
Calcium hypochlorite	65	7778-54-3
Calcium hydroxide	4	1305-62-0
Inerts	35	

PHYSICAL DATA**PHYSICAL STATE:** Solid**ODOUR AND APPEARANCE:**

White, granular solid, with a strong chlorine odour.

ODOUR THRESHOLD: Not available.**VAPOUR PRESSURE:** Not applicable. **VAPOUR DENSITY:** Not applicable.**EVAPORATION RATE:** Not applicable. **pH:** 11.5 (5% solution)**BOILING POINT:** Not applicable. **SPECIFIC GRAVITY:** 2.00-2.20 @ 20 °C.**MELTING POINT:** Decomposes at temperatures above 100°C.**SOLUBILITY IN WATER:** 21% @ 20 °C. **MOLECULAR WEIGHT:** 142.98**% VOLATILE BY VOLUME:** Not available.**COEFFICIENT OF WATER/OIL DISTRIBUTION:** Not applicable.**FIRE AND EXPLOSION DATA****CONDITIONS OF FLAMMABILITY:** Not available.**MEANS OF EXTINGUISHING:**

Drench with water, and cool surrounding products and area with water. Water in contact with hot Hypochlorites can release hydrochloric acid or chlorine gas. Use appropriate self-contained breathing apparatus when any material is involved in a fire.

FLASH POINT:

Not combustible (does not burn). Be aware that calcium hypochlorite can decompose violently at temperatures above 100°C, releasing heat and oxygen gas.

UPPER FLAMMABLE LIMIT: Not applicable.**LOWER FLAMMABLE LIMIT:** Not applicable.

FIRE AND EXPLOSION DATA

AUTO IGNITION TEMPERATURE: Not applicable.

HAZARDOUS COMBUSTION PRODUCTS: Oxygen, chlorine, and chlorine monoxide.

SPECIAL FIRE FIGHTING PROCEDURES:

Use water only. Drench with water and cool surrounding products and area with water. Water in contact with hot hypochlorites can release Hydrochloric acid or chlorine gas. Use appropriate self-contained breathing apparatus when any material is involved in a fire.

EXPLOSION HAZARDS:

Powerful oxidizing material. With acids, evolves chlorine at ambient temperatures. On combustion, and with subsequent decomposition, evolves oxygen at higher temperatures. Readily ignites combustible materials and strong reducing agents when in contact. May undergo accelerated decomposition with evolution of heat. Contamination or mixing with any foreign material may result in a fire of great intensity.

REACTIVITY DATA

STABILITY: Stable (up to 180 °C).

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITY:

AMMONIA, UREA AND AMINES - form reactive, toxic chloramines.

ACIDS - release chlorine gas.

METAL OXIDES - can react violently.

HAZARDOUS REACTIONS/DECOMPOSITIONS:

Calcium hypochlorite is a strong oxidizing agent. Mix only into water. Contamination may start a chemical reaction with generation of heat, liberation of hazardous gases, and possible fire and explosion.

CONDITIONS TO AVOID:

Calcium hypochlorite should be kept away from household soap, suntan lotions, paint products, solvents, acids, beverages, lighted cigarettes, combustible materials, garbage, dirt, dirty rags, organic materials, and other pool chemicals. Mixing with any of the above materials can initiate a hazardous decomposition of calcium hypochlorite. Calcium hypochlorite should not be mixed with anything but water.

HEALTH HAZARD DATA

INHALATION:

Dust and mist irritate the nose and throat. When mixed with acids, chlorine gas is released. This gas causes irritation of the respiratory tract. Prolonged exposure to high concentrations of chlorine gas may result in severe lung damage.

SKIN CONTACT:

Calcium hypochlorite dust and solutions can cause irritation, and in severe cases, chemical burns.

EYE CONTACT:

Exposure to calcium hypochlorite can cause eye irritation. Concentrated solutions cause burns which may result in permanent eye damage if not promptly treated.

INGESTION:

When ingested, there will be burning in the mouth and throat. Calcium Hypochlorite can cause abdominal cramps and nausea which may lead to convulsions, coma, and death.

CHRONIC EXPOSURE EFFECTS:

Skin irritation may occur from repeated or prolonged skin contact.

EXPOSURE LIMITS: (TLV-TWA) Not available.

IRRITANCY: Not available.

MUTAGENICITY: Not available.

CARCINOGENICITY: Not carcinogenic (IARC and ACGIH).

HEALTH HAZARD DATA

SENSITIZATION TO PRODUCT: Not available.

REPRODUCTIVE TOXICITY: Not available.

TOXICOLOGICALLY SYNERGISTIC MATERIALS: Not available.

TERATOGENICITY DATA: Not available.

ANIMAL TOXICITY DATA:

LC₅₀: (Inhalation, rats) - 148 mg/l (65% Calcium Hypochlorite)

LD₅₀: (Oral, rats) - 1300 mg/kg (65% Calcium Hypochlorite)

OTHER HEALTH EFFECTS: None known.

FIRST AID MEASURES

INHALATION:

Remove source of contamination or move victim to fresh air. If breathing has stopped, trained personnel should begin artificial respiration or, if the heart has stopped, cardiopulmonary resuscitation (CPR) immediately. Obtain medical attention immediately.

SKIN CONTACT:

As quickly as possible, flush contaminated area with lukewarm, gently running water for at least 15 minutes. Under running water, remove contaminated clothing, shoes, and leather goods. Obtain medical attention immediately.

EYE CONTACT:

Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes, holding the eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. Obtain medical attention immediately.

INGESTION:

Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. Do not induce vomiting. Have victim drink one cup (240-300 ml, 8-10 oz.) of water to dilute material in stomach. If vomiting occurs naturally, rinse mouth and repeat administration of water. If breathing has stopped, trained personnel should begin artificial respiration or, if the heart has stopped, cardiopulmonary resuscitation (CPR) immediately. Obtain medical attention

PREVENTATIVE MEASURES

RESPIRATORY PROTECTION:

Dust mask or NIOSH approved canister type respirators suitable for chlorine.

SKIN PROTECTION:

Impervious gloves, body suits, boots, and/or other resistant protective clothing. Have a safety shower/eye wash fountain readily available in the immediate work area.

EYE/FACE PROTECTION:

Chemical safety goggles. A face shield may be necessary.

SPECIAL HANDLING PROCEDURES:

Avoid generating dust. Avoid mixing pure material with contaminated material. Use smallest possible amounts in designated areas with adequate ventilation.

STORAGE REQUIREMENTS:

Store in original container. Store tightly closed containers in a clean, cool, open or well ventilated area. Keep out of sun.

ENGINEERING CONTROLS:

Local exhaust ventilation required where exposure to dust might occur.

SPECIAL SHIPPING REQUIREMENTS:

Transportation in Canada is governed by Transport Canada. Refer to the Transportation of Dangerous Goods (TDG) Regulations for special shipping requirements for calcium hypochlorite. Transport in the U.S. is governed by the Department of Transport (DOT). Refer to DOT regulations (CFR 49) for special shipping requirements for calcium hypochlorite (UN1748).

ENVIRONMENTAL PROTECTION DATA**STEPS IN THE EVENT OF A LEAK OR SPILL:**

Restrict access to area until completion of cleanup. Wear adequate personal protective equipment. Extinguish or remove all ignition sources. Ventilate area. Do not touch spilled material. Prevent material from entering sewers or confined spaces. Shovel into clean, dry, labelled containers. Flush area with water. Contaminated materials may be dissolved in water then treated with a reducing agent such as sodium sulphite. Care should be taken handling contaminated materials due to fire risk.

ENVIRONMENTAL EFFECTS:

Harmful to aquatic life in low concentrations.

DEACTIVATING CHEMICALS:

Sodium sulphite, Sodium bisulphite, or hydrogen peroxide can be used. Do not use acids, since chlorine gas will be liberated.

WASTE DISPOSAL METHODS:

Consult appropriate Federal, State/Provincial, and local regulatory authorities to ascertain proper disposal procedures. Care should be taken not to mix waste calcium hypochlorite with incompatible material. Calcium hypochlorite should be dissolved in water, and the available chlorine treated using a reducing agent such as sodium sulphite.

PREPARATION INFORMATION

MSDS PREPARED BY: Technical Department
PrairieChem Inc.

TELEPHONE NUMBER: (306) 664-2522

DATE PREPARED/REVISED: December 13, 1991

DATE PRINTED: November 7, 1991

REFERENCES:

1. Manufacturer's MSDS and publications of the Chlorine Institute Inc.
2. Hawley, Gessner G. "The Condensed Chemical Dictionary, Tenth Edition" (Van Nostrand Reinhold Co.) 1981.

1. Identification

Product identifier	QT-TB
Other means of identification	
SDS number	538N-57A
Product code	HIL01011
Product registration number	1839-83-1658
Recommended use	Disinfectant/Cleaner
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	
Manufacturer Company name	HILLYARD INDUSTRIES
Address	302 North Fourth St. St. Joseph, MO 64501
Contact person	Regulatory Affairs
Telephone number	(816) 233-1321 (Ext. 8285)
Fax	(816) 383-8485
E-mail	regulatoryaffairs@hillyard.com
Emergency telephone #	(800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure, or accident involving chemicals.)

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 4
Health hazards	Serious eye damage/eye irritation	Category 2B
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		
Hazard symbol	None.	
Signal word	Warning	
Hazard statement	Combustible liquid. Causes eye irritation.	
Precautionary statement		
Prevention	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Wash thoroughly after handling. Wear protective gloves/eye protection/face protection.	
Response	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. In case of fire: Use appropriate media to extinguish.	
Storage	Store in a well-ventilated place. Keep cool.	
Disposal	Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law in compliance with applicable federal, state and local requirements.	
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	%
2-(2-butoxyethoxy)ethanol		112-34-5	5 - < 10
Tetrasodium ethylenediamine tetraacetate		64-02-8	1 - < 3
Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride		85409-23-0	< 0.2
Alkyl dimethyl benzyl ammonium chloride (C12-18)		68391-01-5	< 0.2
Other components below reportable levels			90 - 100

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

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
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. Get medical attention if irritation develops and persists.
Ingestion	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth thoroughly. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.
Most important symptoms/effects, acute and delayed	Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.
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	In case of fire and/or explosion do not breathe fumes. 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	Combustible liquid.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. 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.
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Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

Environmental precautions

7. Handling and storage

Precautions for safe handling

Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke. Avoid contact with eyes. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL.
PESTICIDE STORAGE - Store in a dry place no lower in temperature than 50°F or higher than 120°F.

Keep away from heat, sparks and open flame. Store away from incompatible materials (see Section 10 of the SDS).

Do not contaminate water, food or feed by storage or disposal. Pesticide Storage: Open dumping is prohibited. Store in original container in areas inaccessible to children.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
2-(2-butoxyethoxy)ethanol (CAS 112-34-5)	TWA	10 ppm	Inhalable fraction and vapor.

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. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection

Use safety eyewear with splash guards or side shields, chemical goggles, or face shields.

Skin protection

Hand protection

Wear protective gloves.

Other

None normally required. If unable to avoid prolonged or repeated contact with skin, wear impervious clothing.

Respiratory protection

Not normally required with adequate ventilation. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not 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.

9. Physical and chemical properties

Appearance

Clear, colorless liquid

Physical state

Liquid.

Form

Liquid.

Color

Colorless

Odor

Lemon odor

Odor threshold

Not available

pH	12 - 13 Concentrate
Melting point/freezing point	Not applicable / Not available
Initial boiling point and boiling range	210 °F (98.89 °C)
Flash point	> 180.0 °F (> 82.2 °C) Tag Closed Cup
Evaporation rate	< 1 (ethyl ether = 1)
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	17.36 mm Hg
Vapor density	1.03 Air = 1
Relative density	1.02 at 77°F
Solubility(ies)	
Solubility (water)	100 % Complete
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Other information	
Density	8.49 lb/gal
Percent volatile	96.5 - 97.5 %
VOC (Weight %)	8.01 %

10. Stability and reactivity

Reactivity	Reacts violently with strong acids. This product may react with oxidizing agents.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Do not mix with other chemicals. Contact with incompatible materials.
Incompatible materials	Acids. Oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Causes eye irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics	Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort.
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Information on toxicological effects

Acute toxicity	Toxicity data is not available for this mixture. Data below are estimates based on summation methods.
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Product	Species	Test Results
QT-TB		
Acute		
<i>Dermal</i>		
LD50	Rabbit	33750 mg/kg estimated

Product	Species	Test Results
<i>Inhalation</i> LC50	Mouse	5882.353 mg/l, 2 Hours estimated 5871.021 mg/l, 4 Hours estimated
	Rat	12058.8232 mg/l, 0.5 Hours estimated 7058.8237 mg/l, 4 Hours estimated
<i>Oral</i> LD50	Guinea pig	24837.5996 mg/kg estimated
	Mouse	27265.4043 mg/kg estimated
	Rabbit	27500 mg/kg estimated
	Rat	48439.9336 mg/kg estimated
Components	Species	Test Results

2-(2-butoxyethoxy)ethanol (CAS 112-34-5)

Acute

Dermal

LD50 Rabbit 2700 mg/kg

Oral

LD50 Guinea pig 2000 mg/kg
 Mouse 2400 mg/kg
 Rabbit 2200 mg/kg
 Rat 4500 mg/kg

Tetrasodium ethylenediamine tetraacetate (CAS 64-02-8)

Acute

Oral

LD50 Rat > 2000 mg/kg

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

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Causes eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

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 Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Prolonged inhalation may be harmful.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species		Test Results
QT-TB			
Aquatic			
Crustacea	EC50	Daphnia	27111.5469 mg/l, 48 hours estimated
Fish	LC50	Fish	14750.9004 mg/l, 96 hours estimated
Components		Species	Test Results
2-(2-butoxyethoxy)ethanol (CAS 112-34-5)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	1300 mg/l, 96 hours
Tetrasodium ethylenediamine tetraacetate (CAS 64-02-8)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	472 - 500 mg/l, 96 hours

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

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

2-(2-butoxyethoxy)ethanol 0.56

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	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. Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law.
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	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.
Contaminated packaging	CONTAINER DISPOSAL – Nonrefillable container. Do not reuse or refill container. Clean container promptly after emptying. Triple rinse as follows: Fill container ¼ full with water. Tip container on its side and roll it back and forth, ensuring at least one complete revolution for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Repeat this procedure two more times. Offer for recycling or reconditioning, if available. If not available, puncture and dispose in a sanitary landfill. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List or Exempt.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

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 - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Safe Drinking Water Act (SDWA) Not regulated.

FIFRA Information FIFRA: This product is a U.S. EPA Registered pesticide, EPA Reg. No. 1839-83-1658, and is subject to certain labeling requirements under Federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide products. The hazard information required on the pesticide label is reproduced here.

PRECAUTIONARY STATEMENTS - HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

KEEP OUT OF REACH OF CHILDREN. Causes moderate eye irritation. Avoid contact with eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

FIRST AID: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. 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. 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 the poison control center or doctor. Do not give anything by mouth to an unconscious person. If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice. NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

US state regulations

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

US. Massachusetts RTK - Substance List
Not regulated.

US. New Jersey Worker and Community Right-to-Know Act
Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law
Not listed.

US. Rhode Island RTK
Not regulated.

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)*
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 04-04-2015

Version # 01

HMIS® ratings Health: 1
Flammability: 2
Physical hazard: 0

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