



**If inhaled:** Remove the person from exposure. Begin rescue breathing (using universal precautions) if breathing has stopped and CPR if heart action has stopped. Transfer promptly to a medical facility. Medical observation is recommended for 24 to 48 hours after overexposure, as pulmonary edema may be delayed.

**In case of skin contact:** Quickly remove contaminated clothing. Immediately wash gently with large amounts water for at least 30 minutes. Seek medical attention immediately.

**In case of eye contact:** Immediately flush with large amounts of water for at least 30 minutes, lifting upper and lower lids. Remove contact lenses, if worn, while flushing. Seek medical attention immediately.

**If swallowed:** Do NOT induce vomiting. Rinse mouth with water. Consult a physician. Never give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed:** Burning pain, skin and eye irritation. Irritation of respiratory tract if vapors inhaled.

**Indication of any immediate medical attention and special treatment needed:** Treat symptomatically, goal is to get chemical off skin / out of eyes.

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## SECTION 5 – FIREFIGHTING MEASURES

**Extinguishing media:** Nonflammable

**Suitable extinguishing media:** Extinguish fire using an agent suitable for type of surrounding fire. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use water spray to keep fire-exposed containers cool.

**Special hazards arising from the substance or mixture.** Overheating in fire conditions may release Carbon Dioxide, Carbon Monoxide, Nitrogen oxides, halogenated compounds.

**Advice for firefighters:** Wear self-contained breathing apparatus for firefighting if necessary.

**Further information:** If employees are expected to fight fires, they must be trained and equipped as stated in the OSHA Fire Brigades Standard (29 CFR 1910.156).

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## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Wear appropriate personal protective equipment as indicated, including respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Do not touch or walk through spilled material.

**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up:** Absorb liquids in dry sand, earth, or a similar material and place into sealed containers for disposal. Ventilate and wash area after clean-up is complete. DO NOT wash into sewer. Contact your state Department of Environmental Protection (DEP) or your regional office of the federal Environmental Protection Agency (EPA) for specific recommendations.

**Reference to other sections:** For disposal see Section 13.

**Note:** If employees are required to clean-up spills, they must be properly trained and equipped. The OSHA Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120) may apply.

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## SECTION 7 – HANDLING AND STORAGE

**Precautions for safe handling:** Avoid inhalation of vapor or mist. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Do not eat, drink, or smoke while handling. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities:** Keep container upright and tightly closed in a dry, cool, and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Follow normal storage practices for non-combustible, corrosive hazardous materials.

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## SECTION 8 – EXPOSURE CONTROL AND PERSONAL PROTECTION

### Control parameters

#### Components with workplace control parameters:

None

### Exposure controls

**Appropriate engineering controls:** Handle in accordance with good industrial hygiene and safety practice. Good ventilation of the chemical use area, typically 10 air changes per hour. Eye wash and emergency drench shower should be immediately available in the use area. Wash hands before breaks and at the end of workday.

### Personal protective equipment

**Eye/face protection:** Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection:** Handle with acid-resistant gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection:** Appropriate chemical resistant clothing, use of an impervious apron is recommended.

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Improper use of respirators is dangerous. Respirators should only be used if the employer has implemented a written program that takes into account workplace conditions, requirements for worker training, respirator fit testing, and medical exams, as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134).

**Control of environmental exposure:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

### General Information:

Physical State:	Clear, light yellow liquid with minimal odor
Boiling Point/Range:	Not Determined, >220 F
Flash Point:	Not Flammable
Auto Ignition Temp:	N/A
Lower Flammability Limit:	N/A
Upper Flammability Limit:	N/A
Vapor Pressure (psi @100°F):	N/A
Vapor Density:	N/A
Freezing Point/Melting Point:	Not Determined
Solubility (Water):	Complete
Specific Gravity:	1.042 (8.69 lb/gal)
Evaporation Rate:	Not Determined
Viscosity (SSU@ 100°F):	Not Determined

pH (neat solution): 6.0  
Volatility: Not Determined

**Note:** Physical Data is typical values based on material tested, but may vary based on composition. Values should not be accepted as guaranteed for every lot or as specifications for this product.

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## SECTION 10 – STABILITY AND REACTIVITY

**Reactivity:** No data available  
**Chemical stability:** Stable under recommended storage / usage conditions.  
**Possibility of hazardous reactions:** No data available  
**Conditions to avoid:** No data available  
**Incompatible materials:** No data available  
**Hazardous decomposition products:** None known under normal storage / usage conditions.

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## SECTION 11 – TOXICOLOGICAL INFORMATION

### Information on toxicological effects:

Poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylene dichloride] (CAS #31512-74-0)  
(as 60% concentrate)

**Inhalation:** Rat LC-50 2.9 mg/L / 4 hour  
**Dermal:** Rabbit LC-50 >2,000 mg/kg estimated  
**Oral:** Rat LC-50 1,9151 mg/kg

**Skin Corrosion/irritation:** Rabbit: Causes mild irritation  
**Eye damage/eye irritation:** Rabbit: Causes mild irritation  
**Respiratory or skin sensitization:** Not a respiratory or skin sensitizer  
**Germ cell mutagenicity:** No data available  
**Carcinogenicity:** Not considered a carcinogen  
**Reproductive toxicity:** Not expected to cause reproductive or developmental effects.  
**Specific target organ toxicity - single exposure:** May cause respiratory, skin, eye irritation  
**Specific target organ toxicity - repeated exposure:** No data available  
**Aspiration hazard:** No data available  
**Chronic Effects:** Prolonged inhalation may be harmful  
**Additional Information:** None.

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## SECTION 12 – ECOLOGICAL INFORMATION

**Toxicity:** Fish LC-50 >600 mg/L / 96 hours  
Crustaceans LC-50 13 mg/L / 96 hours  
**Persistence and degradability:** No data available  
**Bioaccumulative potential:** No data available  
**Mobility in soil:** No data available  
**Other adverse effects:** No data available

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## SECTION 13 – DISPOSAL CONSIDERATION

**Waste treatment methods Product:** Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix



the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging:** Dispose of as unused product.

**Note:** This product is intended to be used in open recirculating cooling water treatment and discharged to sanitary sewer in its diluted state in tower bleedoff water. Concentrated product may be diluted to a similar working concentration and flushed to sewer or concentrate soaked up with absorbent material and landfilled in accordance with local, state, and federal regulations.

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## SECTION 14 – TRANSPORT INFORMATION

### 14. Transport information (USDOT):

**Proper shipping Name:** Not Regulated by USDOT\*

**Hazard Class:** None

**UN/ID No** None

**Packing Group** None

**Reportable Quantity (RQ)** 360 lbs (calculated)

**Other Description:** \*Regulated by IMDG & IATA as “Environmentally Hazardous Substance, Liquid, N.O.S. (contains Poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylene dichloride]), UN-3082, Class 9, Packing Group III. Emergency Response Guide # 171

EPA Registration # 1448-62-38723

Establishment EPA Registration # 38723-IL-1

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## SECTION 15 – REGULATORY INFORMATION

**TSCA** (Toxic Substance Control Act): EPA Registered FIFRA-listed Pesticides are exempt.

**CERCLA:** (Comprehensive Emergency Response Compensation, and Liability Act) (40 CFR 302.4):

1,4-Dioxane: 100 lb; bis(2-chloroethyl) ether

**RCRA:** (Resource Conservation/Recovery Act): Not listed

**SARA 302 / 304 Extremely Hazardous Substances:** Yes

**SARA 304 Emergency Release Notification:**

Dichloroethyl ether (<0.001% in product) Reportable Quantity as product: >100,000 lbs

**SARA 311/312 Hazardous Chemical:** Immediate (Acute) Health Hazard

Poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylene dichloride]

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List & 112(r) Accidental Release Prevention:**

Not Listed

**Drug Enforcement Administration (DEA) List #1 & #2, Essential Chemicals (21 CFR 1310.02(b), 1310.04(f)(2), & 1310.12(c):** Not Listed

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## SECTION 16 – OTHER INFORMATION

### National Fire Protection Association (NFPA) Rating:

This Safety Data Sheet compiled from information provided by the raw chemical product manufacturers.



**NSF-60:** Listed for use in potable water, max concentration 2-5 ppm up to 21 days, 0.5 ppm thereafter.



Also available for download at:

<http://www.WalterLouis.com/MSDS/>

**FDA Approval:** NOT allowed for food contact applications.

**Disclaimer:** The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet. However, no warranty or representation, expressed or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by the vendor for any damage or injury resulting from abnormal use, from failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.