

Skin contact

Wash immediately with soap and plenty of water.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Inhalation

Move to fresh air. No hazards which require special first aid measures.

Most important symptoms and effects, both acute and delayed

Symptoms: No information available.
Hazards: No information available.

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

Treatment: Symptomatic treatment

5. **FIRE FIGHTING MEASURES**

Suitable Extinguishing Media

Water mist, carbon dioxide (CO₂) or dry chemical

Unsuitable extinguishing media

None known.

Special hazards arising from the substance or mixture

Burning may produce toxic and irritant gases.

Special protective actions for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Further information

In the event of fire, cool tanks with water spray.

6. **ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

For personal protection see section 8. Use rubber boots.

Environmental precautions

Should not be released into the environment.

Methods and material for containment and cleaning up

Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Remove residues by scrubbing. Prevent product from entering drains.

Additional advice

For personal protection see section 8.

7. **HANDLING AND STORAGE**

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. For personal protection see section 8.

Conditions for safe storage, including any incompatibilities

Materials for packaging

Unsuitable material: To avoid product degradation and equipment corrosion, do not use iron, copper or aluminum containers or equipment.

Materials to avoid

Strong oxidizing agents, iron, copper, aluminum, acids

Storage stability:

Storage temperature: 41-77°F

Other data: Stable under recommended storage conditions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Contains no substances with occupational exposure limit values.

Appropriate Engineering controls

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes.

Wash hands and face before breaks and immediately after handling the product. Ensure that eyewash stations and safety showers are close to the workstation location.

Ensure adequate ventilation.

Individual protection measures, such as personal protective equipment

Industrial Hygiene

Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash hands before breaks and immediately after handling the product.

Respiratory protection

None under normal use.

Hand protection

Glove material: Imperious gloves. Permeability tests are not available for this product. 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, and the contact time.

Eye protection

Tightly fitting safety goggles.

Skin and body protection

Long sleeved clothing. No special requirements.

Environmental exposure controls

No data available

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state:	liquid
Form:	aqueous solution
Color:	colorless, or amber
Odour:	amine-like
Odour Threshold:	not determined
pH:	4 – 7

Freezing point/Melting point:	-18 °C
Initial Boiling Point/range:	ca. 212°F
Flash point:	> 212° F (Closed Cup) (Does not flash)
Evaporation rate:	No data available
Flammability (solid, gas):	Not classified as a flammability hazard
Explosive properties:	
Lower Explosive Limits	No data available
Upper explosion Limit	No data available
Oxidizing properties	The substance or mixture is not classified as oxidizing.
Vapor Pressure:	No data available
Relative vapour density:	No data available
Density:	1.14– 1.18 g/cm ³
Relative density:	No data available
Solubility in Water:	Completely soluble
Partition coefficient (n-octanol/water):	Not applicable
Auto-ignition temperature:	No data available
Decomposition temperature:	> 212°F
Viscosity	
Dynamic	No data available
Kinematic	No data available
Oxidizing potential:	The substance or mixture is not classified as oxidizing.
Surface tension:	No data available

10. **STABILITY AND REACTIVITY**

Reactivity

No data available.

Chemical stability

Stable

Possibility of hazardous reactions

No data available

Conditions to avoid

Stable

Incompatible Materials

Aluminum, copper, Strong oxidizing agents, acids, iron

Hazardous Decomposition

Nitrogen oxides (NO_x), Hydrogen chloride (HCl), Ammonia, Carbon monoxide, Carbon dioxide (CO₂)

11. **TOXICOLOGICAL INFORMATION**

Information on toxicological effects

Acute oral toxicity:

Conclusion: The acute toxicological results displayed may not be the results of actual testing of this material but based on a similar tested material.

LD₅₀/Rat/>/4,670 mg/kg

Remarks: estimated

Acute inhalation toxicity:

LC₅₀/Rat/4 h/>/20 mg/l Remarks: estimated

Acute dermal toxicity: LD50/Rabbit/>/10,000 mg/kg

Skin corrosion/irritation: Conclusion: No skin irritation

Serious eye damage/eye irritation: Conclusion: No eye irritation

Respiratory or skin sensitization

Skin sensitization: Conclusion: Not sensitizing.

Carcinogenicity

Carcinogenicity: Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity

Remarks: Ecotoxicological information provided is based on a structurally or compositionally similar product.

LC50/96 h/Brancydanio rerio (zebra fish)/OECD Test Guideline 203: >10-100 mg/l

Remarks: Fresh water

LC50/96 h/Scophthalmus maximus (juvenile turbot)/semi-static test/PARCOM: 1,789 mg/l

Remarks: Seawater

EC50/48 h/Daphnia magna (water flea)/Immobilization/OECD Test Guideline 202: > 10-100 mg/l

Remarks: Fresh water

EC50/48 h/Acartia tonsa (copepod)/Immobilization/PARCOM: 204 mg/l

Remarks: Seawater

IC50/72 h/Pseudokirchneriella subcapitata (green algae)/Growth inhibition/OECD Test Guideline 201: > 10-100 mg/l

Remarks: fresh water

Toxicity to other organisms

No data available

Persistence and degradability

Biological degradability:

Remarks: Ecotoxicological information provided is based on a structurally or compositionally similar product.

Modified Sturm Test/OECD Test Guideline 301B/28d: < 70%

Not readily biodegradable.

/OECD Test Guideline 306/28d: 0%

Remarks: Seawater

Bioaccumulative potential

Partition coefficient: n-octanol/water: Not applicable

Mobility in soil

Water solubility: completely soluble

Surface tension: No data available

Other adverse effects

No data available

13. **DISPOSAL CONSIDERATIONS**

Product

Where possible recycling is preferred to disposal or incineration. In accordance with local and national regulations. Classified as hazardous waste. Must be disposed of in accordance with local and national regulations. Thoroughly cleaned packaging material may be recycled.

Contaminated packaging

Must be disposed of in accordance with local and national regulations.

14. **TRANSPORT INFORMATION**

Land transport

Not classified as dangerous in the meaning of transport regulations.

Sea transport

Not classified as dangerous in the meaning of transport regulations.

Air transport

Not classified as dangerous in the meaning of transport regulations.

15. **REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Title III Section 311 Categories

No SARA Hazards

SARA 302 Extremely Hazardous Substances

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

SARA 313- Specific Toxic chemical Listings

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Proposition 65

WARNING: This product contains a chemical(s) known to the state of California to cause cancer, birth defects or other reproduction harm. For more information go to www.P65Warnings.ca.gov.

Epichlorohydrin (106-89-8) < 5 PPM

1,3-Dichloropropan-2-ol (96-23-1) < 500 PPM

3-Chloropropane-1,2-diol (96-24-2) < 100 PPM

Glycidol (556-52-5) < 10 PPM

Other regulations: None

Notification status:

USA:

All components of this product are included on the United States TSCA Chemical Inventory or are not required to be listed on the United States TSCA Chemical Inventory.

Canada:

All components of this product are included on the Canada Domestic Substances List (DSL) or are not required to be listed on the Canada Domestic Substances List (DSL).

European Union:	All components of this product are included on the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.
Australia:	All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on the Australian Inventory of Chemical Substances (AICS).
China:	All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese Inventory.
Japan:	All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese (ENCS) Inventory.
South Korea:	All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean (ECL) inventory
New Zealand:	All components of this product are included in the New Zealand Inventory of Chemical Substances (NZIoC) or are not required to be listed on the New Zealand inventory (NZIoC).
Philippines:	All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine (PICCS) inventory.
Taiwan:	All components of this product are included on the Taiwan Toxic Chemical Substances Control Act Inventory.

16. **OTHER INFORMATION**

NFPA RATING

Health:	0
Fire:	1
Reactivity:	0

HMIS Rating:

Health:	0
Flammability:	0
Reactivity:	0

Training advice: Read the Safety Data Sheet before using the product.

OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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. Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This information is for the specific

material described only and may not be valid if the material is used in combination with any other materials or in any process. The user is responsible to determine the completeness of the information and suitability for the user's own particular use. The knowledge and belief of the company, the information is accurate and reliable as of the date indicated but the company makes no express or implied warranty of merchantability for the material or the information. The company makes no express or implied warranty of fitness for a purpose for the material or for the information. Users of any chemical should educate themselves on all aspects of its use by independent investigation of current scientific and medical knowledge that the material can be used safely. Both the supplier and manufacturer make no representations and assume no liability for any direct, incidental or consequential damages resulting from its use. Both the supplier and manufacturer make no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This information is for the specific material described only and may not be valid if the material is used in combination with any other materials or in any process. The user is responsible to determine the completeness of the information and suitability for the user's own particular use. Users of any chemical should educate themselves on all aspects of its use by independent investigation of current scientific and medical knowledge that the material can be used safely. The buyer assumes all responsibility for using and handling the product in accordance with applicable federal, state and local regulations.

List of abbreviations and acronyms that could be, but not necessarily are, used in the safety data sheet:

ACGIH: American Conference of Industrial Hygienists
BEI: Biological Exposure Index
CAS Chemical: Abstracts Service (Division of the American Chemical Society)
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
CMR: Carcinogenic, Mutagenic or Toxic for Reproduction
DOT: Department of Transportation
FG: Food grade
FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
H-statement: Hazard Statement
HMIRC: Hazardous Materials Information Review Commission
HMIS: Hazardous Materials Identification System
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI (ICAO): Technical Instructions by the "International Civil Aviation Organization"
IMDG: International Maritime Code for Dangerous Goods
ISO: International Organization for Standardization
logPow: octanol-water partition coefficient
LCxx: Lethal Concentration, for xx percent of test population
LDxx: Lethal Dose, for xx percent of test population
ICxx: Inhibitory Concentration for xx of a substance
ECxx: Effective Concentration of xx
N.O.S.: Not otherwise specified
NFPA: National Fire Protection Association
NIOSH: National Institute for Occupational Safety and Health
OECD: Organization for Economic Co-operation and Development
OEL: Occupational Exposure Limit
OSHA: Occupational Safety and Health Administration
P-Statement: Precautionary Statement
PBT: Persistent, Bioaccumulative and Toxic
PMRA: Health Canada Pest Management Regulatory Agency
PPE: Personal Protective Equipment
RTK: Right to Know
SDS: Safety Data Sheet
STEL: Short-term exposure limit

STOT: Specific Target Organ Toxicity
TLV: Threshold Limit Value
TWA: Time-weighted average
VPVB: Very Persistent and Very Bioaccumulative
WEL: Workplace Exposure Level
WHMIS: Workplace Hazardous Materials Information System