

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : Epichlorohydrin

Distributor : Continental Industries Group, Inc.
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NEW YORK, NY 10017
USA

Emergency Contact
Chemtel Phone # : 1-800-255-3924
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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No1272/2008
Acute toxicity, Inhalation (Category 3)
Acute toxicity, Dermal (Category 3)
Acute toxicity, Oral (Category 3)
Flammable liquids (Category 3)
Carcinogenicity (Category 1B)
Skin corrosion (Category 1B)
Skin sensitization (Category 1)

According to European Directive 67/548/EEC as amended.

May cause cancer. Flammable. Toxic by inhalation, in contact with skin and if swallowed. Causes burns. May cause sensitization by skin contact.

Label elements

Pictogram



Signal word

Danger

Hazard statement(s)

H314 Causes severe skin burns and eye damage.
H226 Flammable liquid and vapour.
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H317 May cause an allergic skin reaction.
H331 Toxic if inhaled.
H350 May cause cancer.

Precautionary statement(s)

P201 Obtain special instructions before use.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician.

Hazard symbol(s)	
T	Toxic
R-phrase(s)	
R45	May cause cancer.
R10	Flammable.
R23/24/25	Also toxic by inhalation, in contact with skin and if swallowed.
R34	Causes burns.
R43	May cause sensitization by skin contact.
S-phrase(s)	
S53	Avoid exposure - obtain special instructions before use.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Restricted to professional users.

Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms	:	1-Chloro-2,3-epoxypropane (±)-Epichlorohydrin (±)-2-(Chloromethyl)oxirane
Formula	:	C ₃ H ₅ ClO
Molecular Weight	:	92,52 g/mol

CAS-No.	EC-No.	Index-No.	Classification	Concentration
Epichlorohydrin				
106-89-8	203-439-8	603-026-00-6	Acute Tox. 3; Flam. Liq. 3; Carc. 1B; Skin Corr. 1B; Skin Sens. 1; H314, H226, H301, H311, H317, H331, H350 T, Carc.Cat.2, R45 - R10 - R23/24/25 - R34 - R43	-

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

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

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE**Precautions for safe handling**

Avoid exposure - obtain special instructions before use. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Store under inert gas.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Personal protective equipment****Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose 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).

Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Handle with gloves.

Eye protection

Tightly fitting safety goggles. Faceshield (8-inch minimum).

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form clear, liquid

Colour colourless

Safety data

pH no data available
Melting point 57 °C - lit.
Boiling point 115 - 117 °C - lit.
Flash point 32 °C - closed cup
Ignition temperature 415 °C
Lower explosion limit 3,8 %(V)
Upper explosion limit 21 %(V)
Vapour pressure 18,4 hPa at 21,1 °C
Density 1,183 g/mL at 25 °C
Water solubility no data available
Relative vapour density 3,19
- (Air = 1.0)

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid

Heat. Heat, flames and sparks.
Heat, flames and sparks.

Materials to avoid

acids, Bases, Ammonia, Amines, Sodium/sodium oxides, Zinc, Magnesium, Aluminum, and its alloys, Halides

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - rat - 90 mg/kg

LC50 Inhalation - rat - 8 h - 250 ppm

Skin corrosion/irritation

Skin - rabbit - Open irritation test - 24 h

Serious eye damage/eye irritation

Eyes - rabbit - Severe eye irritation

Respiratory or skin sensitization

May cause allergic skin reaction.

Germ cell mutagenicity

May alter genetic material.

Carcinogenicity

This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

Possible human carcinogen

IARC: 2A - Group 2A: Probably carcinogenic to humans (Epichlorhydrin)

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation	Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Ingestion	Toxic if swallowed. Causes burns.
Skin	Toxic if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns.

Signs and Symptoms of Exposure

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough

Additional Information

RTECS: no data available

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish	LC50 - Pimephales promelas (fathead minnow) - 10,6 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates.	LC50 - Daphnia magna (Water flea) - 21 mg/l - 48 h

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR/RID

UN-Number: 2023 Class: 6.1 (3) Packing group: II
Proper shipping name: EPICHLOROHYDRIN

IMDG

UN-Number: 2023 Class: 6.1 (3) Packing group: II EMS-No: F-E, S-D
Proper shipping name: EPICHLOROHYDRIN
Marine pollutant: Marine pollutant

IATA

UN-Number: 2023 Class: 6.1 (3) Packing group: II
Proper shipping name: Epichlorohydrin

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

16. OTHER INFORMATION**Text of H-code(s) and R-phrase(s) mentioned in Section 3**

Acute Tox.	Acute toxicity
Carc.	Carcinogenicity
Flam. Liq.	Flammable liquids
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled.
H350	May cause cancer.
Skin Corr.	Skin corrosion
Skin Sens.	Skin sensitization
T	Toxic
R10	Flammable.
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R34	Causes burns.
R43	May cause sensitization by skin contact.
R45	May cause cancer.

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Continental Industries Group, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.