

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

1.1 Product identifiers

Product name : Glycidyltrimethylammonium chloride

CAS-No. : 3033-77-0

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

Identified uses : Laboratory chemicals, Manufacture of substances

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Acute toxicity, Oral (Category 3)

Acute toxicity, Dermal (Category 4)

Serious eye damage (Category 1)

Skin sensitization (Category 1)

Germ cell mutagenicity (Category 2)

Carcinogenicity (Category 1B)

Reproductive toxicity (Category 1B)

Specific target organ toxicity - repeated exposure (Category 2)

Chronic aquatic toxicity (Category 3)

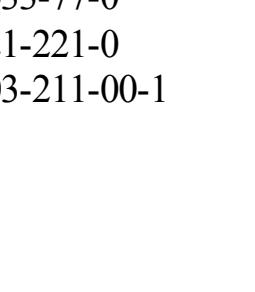
Classification according to EU Directives 67/548/EEC or 1999/45/EC

May impair fertility. May cause cancer. Harmful: danger of serious damage to health by prolonged exposure if swallowed. Harmful by inhalation, in contact with skin and if swallowed. Possible risk of irreversible effects. May cause sensitization by skin contact. Risk of serious damage to eyes. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram



Signal word Danger

Hazard statement(s)

H301 Toxic if swallowed.

H312 Harmful in contact with skin.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H360 May damage fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

Precarecaution statement(s)

P201 Obtain special instructions before use.

P273 Avoid release to the environment.

P280 Wear protective gloves/ eye protection/ face protection.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Supplemental Hazard Statements

none

Restricted to professional users.

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

Hazard symbol(s)



R-phrase(s)

R45 May cause cancer.

R60 May impair fertility.

R20/21/22 Also harmful by inhalation, in contact with skin and if swallowed.

R48/22 Also harmful: danger of serious damage to health by prolonged exposure if swallowed.

R68 Possible risk of irreversible effects.

R41 Risk of serious damage to eyes.

R43 May cause sensitization by skin contact.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s)

S53 Avoid exposure - obtain special instructions before use.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Restricted to professional users.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Synonyms : (2,3-Epoxypropyl)trimethylammonium chloride

Formula : C6H14ClNO

Component	Classification	Concentration
2,3-Epoxypropyltrimethylammonium chloride		
CAS-No. 3033-77-0	Carc. 1B; Muta. 2; Repr. 2;	<= 100 %
EC-No. 221-221-0	Acute Tox. 4; STOT RE 2; Eye Dam. 1; Skin Sens. 1; Aquatic Chronic 3; H302, H312, H317, H318, H341, H350, H361, H373, H412	
Index-No. 603-211-00-1	T, Carc. Cat.2, Repr. Cat.3, Mut. Cat.3, R45 - R21/22 - R41 - R43 - R48/22 - R62 - R68 - R52/53	

CAS-No. 96-24-2

EC-No. 202-492-4

Acute Tox. 2; Acute Tox. 3;

Acute Tox. 4; Eye Dam. 1;

Repr. 1B; Aquatic Chronic 4;

H300, H312, H318, H311,

H360, H413

T, R60 - R21 - R23/25 - R41

>= 2 - <= 4 %

Water

CAS-No. 7732-18-5

EC-No. 231-791-2

-

>= 20 - <= 25 %

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

4.1 Description of 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

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

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

no data available

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 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.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

7.2 Conditions for safe storage, including any incompatibilities

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

Recommended storage temperature: 2 - 8 °C

7.3 Specific end uses

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

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

Personal protective equipment

Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Handle with 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.

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

Body Protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where a risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (air) or type ABEK (EN 14387) respirator cartridges as a backup to respirators with organic vapor relief. If the respirator is the type that uses cartridges, use a full-face respirator.

Respirators such as NIOSH or CEN/EN (EU) certified and approved under appropriate government standards.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance Form: liquid

b) Odour no data available

c) Odour Threshold no data available

d) pH 13.3 - 13.7 °C

e) Melting point/freezing point

f) Initial boiling point and flash point

170 °C - closed cup

g) Flash point 170 °C - closed cup

h) Evaporation rate no data available

i) Flammability (solid, gas) no data available

j) Explosive properties no data available

k) Oxidizing properties no data available

l) Specific gravity no data available

m) Vapour density 1.13/g at 20 °C

n) Relative density 1.13/g at 20 °C