

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)

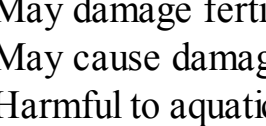
Classification according to EU Directives 67/548/EEC or 1999/45/EC

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.

Precautionary statement(s)

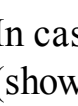
P201 : Obtain special instructions before use.
P273 : Avoid release to the environment.
P280 : Wear protective gloves/ eye protection/ face protection.
P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several 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-phrases(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-phrases(s)

S53 : Avoid exposure - obtain special instructions before use.
S53 : 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	Care. 1B; Muta. 2; Repr. 2;	<= 100 %
EC-No. 221-221-0	Acute Tox. 4; STOT RE 2; Eye	
Index-No. 603-211-00-1	Dam. 1; Skin Sens. 1; Aquatic	
	Chronic 3; H302, H312, H317, H318, H341, H350, H361, H373, H412	
	T, Care Cat.2, Repr. Cat.3, Mut. Cat.3, R45 - R21/22 - R41 - R43 - R48/22 - R62 - R68 - R52/53	
3-Chloropropane-1,2-diol		
CAS-No. 96-24-2	Acute Tox. 2; Acute Tox. 3;	>= 2 - <= 4 %
EC-No. 202-492-4	Acute Tox. 4; Eye Dam. 1; Repr. 1B; Aquatic Chronic 4; H300, H312, H318, H331, H360, H413	
	T, R60 - R21 - R23/25 - R41	
Water		
CAS-No. 7732-18-5	-	>= 20 - <= 25 %
EC-No. 231-791-2		

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 resealed 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).

Skin protection

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

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 : no data available

e) Melting point/freezing point : 133 - 137 °C

f) Initial boiling point and boiling range : no data available

g) Flash point : 170 °C - closed cup

h) Evaporation rate : no data available

i) Flammability (solid, gas) : no data available

j) Upper/lower flammability or explosive limits : no data available

k) Vapour pressure : no data available

l) Vapour density : no data available

m) Relative density : 1,13 g/mL at 20 °C

n) Water solubility : no data available

o) Partition coefficient: n-octanol/water : no data available

p) Autoignition temperature : no data available

q) Decomposition temperature : no data available

r) Viscosity : no data available

s) Explosive properties : no data available

t) Oxidizing properties : no data available

9.2 Other safety information

no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

no data available

LC50 Inhalation - rat - 7 h - 8,17 mg/l

LD50 Dermal - rat - 1.600 mg/kg

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

Eyes - rabbit - Severe eye irritation

Remarks: Severe eye irritation

Respiratory or skin sensitization

May cause allergic skin reaction.

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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 : May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion : Toxic if swallowed.
Skin : Harmful if absorbed through skin. May cause skin irritation.
Eyes : Causes eye burns.

Signs and Symptoms of Exposure

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

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

Harmful to aquatic life.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

no data available

15. REGULATORY INFORMATION

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

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

no data available

15.2 Chemical Safety Assessment

no data available

16. OTHER INFORMATION

Text of H-code(s) and R-phrases(s) mentioned in Section 3

Acute Tox. : Acute toxicity
Aquatic Chronic : Chronic aquatic toxicity
Carc. : Carcinogenicity
Eye Dam. : Serious eye damage
H300 : Fatal if swallowed.
H302 : Harmful 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.
H361 : Suspected of damaging 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.
H413 : May cause long lasting harmful effects to aquatic life.
Muta. : Germ cell mutagenicity
Repr. : Reproductive toxicity
Skin Sens. : Skin sensitization
STOT RE : Specific target organ toxicity - repeated exposure
T : Toxic
R21 : Also harmful in contact with skin.
R21/22 : Harmful in contact with skin and if swallowed.
R23/25 : Also toxic by inhalation and if swallowed.
R41 : Risk of serious damage to eyes.
R43 : May cause sensitization by skin contact.
R45 : May cause cancer.
R48/22 : Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R52/53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R60 : May impair fertility.
R62 : Possible risk of impaired fertility.
R68 : Possible risk of irreversible effects.
Repr.Cat.3 : Toxic to Reproduction Category 3

Further information

For R&D use only. Not for drug, household or other uses.

WARRANTY:

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. Lookchem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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