1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Glycidyl isopropyl ether
Product Number: 291463
Brand: Aldrich
Company: Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA
Telephone: +1 800-325-5832
Fax: +1 800-325-5052
Emergency Phone #: (314) 779-6555

2. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: CBH1202
Molecular Weight: 116.16 g/mol

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Index-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>4016-14-2</td>
<td>223-672-9</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

Emergency Overview
OSHA Hazards
Flammable Liquid, Target Organ Effect, Skin sensitizer, Irritant

Target Organs
Central nervous system

HMIS Classification
Health Hazard: 3
Chronic Health Hazard: 2
Flammability: 3
Physical hazards: 3

NFPA Rating
Health Hazard: 3
Fire: 3
Reactivity Hazard: 3

Potential Health Effects
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Skin: May be harmful if absorbed through skin. Causes skin irritation.

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If ingested
May be harmful. Seek medical attention. Do not induce vomiting. Keep patient comfortable and quiet. Keep warm.

If inhaled
Consult a physician. Keep patient at rest. If breathing is difficult, give oxygen. If breathing stops, consult a physician immediately.

If on skin
Wash off with soap and plenty of water. 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

Flammable properties
Flash point: 33 °C (91 °F) - closed cup
Ignition temperature: No data available

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; avoid streams of water which 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
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions
Do not let product enter drains.

Methods for 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

Handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition. No smoking. Take measures to prevent the build up of electrostatic charge.

Storage
Keep container tightly closed in a dry and well-ventilated place. Store in cool place.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Components</th>
<th>Value (ppm)</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>4016-14-2</td>
<td>2,3-Epoxypropyl isopropyl ether</td>
<td>TWA 50 ppm</td>
<td>236 mg/m³</td>
<td>1994-09-01</td>
<td>US. American Conference of Governmental and Industrial Hygienists Threshold Limit Values for Chemical Substances in the Work Environment; Annual Reports for the Year 2004 Committees on Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)</td>
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Remarks: Substances for which the TLV is higher than the OSHA Permissible Exposure Limit (PEL) and/or the NIOSH Recommended Exposure Limit (REL). See CFR 58/124 36338-33351, June 30, 1993, for revised OSHA PEL

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<tr>
<td></td>
<td>STEL 75 ppm</td>
<td>335 mg/m³</td>
<td>1994-09-01</td>
<td>US. American Conference of Governmental and Industrial Hygienists Threshold Limit Values for Chemical Substances in the Work Environment; Annual Reports for the Year 2004 Committees on Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)</td>
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Remarks: Substances for which the TLV is higher than the OSHA Permissible Exposure Limit (PEL) and/or the NIOSH Recommended Exposure Limit (REL). See CFR 58/124 36338-33351, June 30, 1993, for revised OSHA PEL

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Form - liquid, Colour - light yellow

Safety data:
- pH: no data available
- Melting point: no data available
- Boiling point: 131 - 132 °C (268 - 270 °F)
- Flash point: 33 °C (91 °F) - closed cup
- Ignition temperature: no data available
- Lower explosion limit: no data available
- Upper explosion limit: no data available
- Density: 0.924 g/mL at 25 °C (77 °F)
- Water solubility: no data available

10. STABILITY AND REACTIVITY

Storage stability: Stable under recommended storage conditions.

Conditions to avoid: Heat, flames and sparks.

Materials to avoid: Strong oxidizing agents, acids

Hazardous decomposition products: Hazardous decomposition products formed under fire conditions. - Carbon oxides

Hazardous reactions: Vapours may form explosive mixture with air.
11. TOXICOLOGICAL INFORMATION

Acute toxicity
LD50 Oral - rat: 4,200 mg/kg

LD50 Dermal - rabbit: 9,650 mg/kg
Remarks: Lungs, Thorax, or Respiration: Acute pulmonary edema.

Irritation and corrosion
Skin - rabbit: Skin irritation
Eyes - rabbit: Moderate eye irritation

Sensitisation
May cause sensitization by skin contact.

Chronic exposure

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.

AICHG: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by AICHG.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Genotoxicity in vitro: Hamster - Lungs
Sister chromatid exchange

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

Potential Health Effects

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Skin: May be harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Ingestion: May be harmful if swallowed.

Target Organs: Central nervous system.

Additional Information

RTECS: T23500000

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)
no data available

Ecotoxicity effects
no data available

Further information on ecology

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

DOT (US)
UN-Number: 3271 Class: 3 Packing group: III
Proper shipping name: Ethers, n.o.s.
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG
UN-Number: 3271 Class: 3 Packing group: III
EMS-No: F-E, S-D
Proper shipping name: ETHERS, N.O.S. (2,3-Epoxypropyl isopropyl ether)
Marine pollutant: No

IATA
UN-Number: 5277 Class: 3
Packing group: III
Proper shipping name: Ethers n.o.s. (2,3-Epoxypropyl isopropyl ether)

15. REGULATORY INFORMATION

OSHA Hazards
Flammable Liquid, Target Organ Hazard, Skin sensitizer, irritant

DSL Status
This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

2,3-Epoxypropyl isopropyl ether
CAS-No: 4016-14-2

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

SARA 313 Components
SARA 313: 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.

SARA 311/312 Hazards
Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components
2,3-Epoxypropyl isopropyl ether
CAS-No: 4016-14-2
Revision Date: 1991-07-01

Pennsylvania Right To Know Components
2,3-Epoxypropyl isopropyl ether
CAS-No: 4016-14-2
Revision Date: 1991-07-01

New Jersey Right To Know Components
2,3-Epoxypropyl isopropyl ether
CAS-No: 4016-14-2
Revision Date: 1991-07-01
2,3-Epoxypropyl isopropyl ether

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

16. OTHER INFORMATION

Further Information
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