1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Glycidyl methacrylate
Product Number: 64161
Brand: Fluka
Product Use: For laboratory research purposes.
Supplier: Sigma-Aldrich
Manufacturer: Sigma-Aldrich Corporation
3050 Spruce Street
SAINT LOUIS MO 63103 USA
Telephone: +18003255832
Fax: +18003255052
Emergency Phone #: (314) 776-6555
Preparation Information: Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Combustible Liquid, Harmful by ingestion, Toxic by skin absorption, Skin sensitiser, Corrosive

GHS Classification
Flammable liquids (Category 4)
Acute toxicity, Oral (Category 4)
Acute toxicity, Inhalation (Category 4)
Acute toxicity, Dermal (Category 3)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Skin sensitization (Category 1)

GHS Label elements, including precautionary statements

Pictogram

Signal word: Danger

Hazard statement(s)
H227 Combustible liquid
H302 + H332 Harmful if swallowed or if inhaled.
H311 Toxic in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary statement(s)
P280 Wear protective gloves/ protective clothing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
HMIS Classification
- Health hazard: 3
- Flammability: 2
- Physical hazards: 0

NFPA Rating
- Health hazard: 3
- Fire: 2
- Reactivity Hazard: 0

Potential Health Effects
- Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
- Skin: Toxic if absorbed through skin. Causes skin burns.
- Eyes: Causes eye burns.
- Ingestion: Harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Methacrylic acid 2,3-epoxypropyl ester, 2,3-Epoxypropyl methacrylate

Formula: \( C_7H_{10}O_3 \)

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Index-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycidyl methacrylate</td>
<td>106-91-2</td>
<td>203-441-9</td>
<td>607-123-00-4</td>
</tr>
<tr>
<td>Mequinol</td>
<td>150-76-5</td>
<td>205-769-8</td>
<td>604-044-00-7</td>
</tr>
</tbody>
</table>

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 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. Continue rinsing eyes during transport to hospital.

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

Conditions of flammability
Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

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

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus for fire fighting if necessary.
Hazardous combustion products
Hazardous decomposition products formed under fire conditions. - Carbon oxides

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 an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe 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.

Conditions for safe storage
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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycidyl methacrylate</td>
<td>106-91-2</td>
<td>TWA</td>
<td>0.5 ppm</td>
<td>USA. Workplace Environmental Exposure Levels (WEEL)</td>
</tr>
</tbody>
</table>

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
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.

Eye protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and 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.

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**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>colourless</td>
</tr>
</tbody>
</table>

**Safety data**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>no data available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>-41.5 °C (-42.7 °F)</td>
</tr>
<tr>
<td>Boiling point</td>
<td>189 °C (372 °F) at 1,013 hPa (760 mmHg)</td>
</tr>
<tr>
<td>Flash point</td>
<td>76 °C (169 °F) - closed cup</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
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</tr>
<tr>
<td>Lower explosion limit</td>
<td>no data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>45 hPa (34 mmHg) at 100 °C (212 °F)</td>
</tr>
<tr>
<td>Density</td>
<td>1.04 g/cm³</td>
</tr>
<tr>
<td>Water solubility</td>
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</tr>
<tr>
<td>Partition coefficient:</td>
<td>no data available</td>
</tr>
<tr>
<td>n-octanol/water</td>
<td></td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>no data available</td>
</tr>
<tr>
<td>Odour</td>
<td>no data available</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>no data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>no data available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

no data available

**Conditions to avoid**

May polymerize on exposure to light. Heat, flames and sparks.

**Materials to avoid**

Strong oxidizing agents, Strong acids and strong bases, Peroxides

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - no data available

Contains the following stabiliser(s):
Mequinol (0.005 %)

11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

**Oral LD50**

LD50 Oral - rat - 597 mg/kg
Inhalation LC50
Dermal LD50
LD50 Dermal - rabbit - 486 mg/kg

Other information on acute toxicity
no data available

Skin corrosion/irritation
Skin - rabbit - Severe skin irritation - 24 h

Serious eye damage/eye irritation
Eyes - rabbit - Moderate eye irritation

Respiratory or skin sensitization
no data available

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.

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

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.

Reproductive toxicity
no data available

Teratogenicity
no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available

Aspiration hazard
no data available

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

Signs and Symptoms of Exposure
Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects
no data available

Additional Information
RTECS: Not available
12. ECOLOGICAL INFORMATION

Toxicity
no data available

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
no data available

13. DISPOSAL CONSIDERATIONS

Product
This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. 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: 2810 Class: 6.1 Packing group: III
Proper shipping name: Toxic, liquids, organic, n.o.s. (Glycidyl methacrylate)
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG
UN-Number: 2810 Class: 6.1 Packing group: III EMS-No: F-A, S-A
Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Glycidyl methacrylate)
Marine pollutant: No

IATA
UN-Number: 2810 Class: 6.1 Packing group: III
Proper shipping name: Toxic liquid, organic n.o.s. (Glycidyl methacrylate)

15. REGULATORY INFORMATION

OSHA Hazards
Combustible Liquid, Harmful by ingestion., Toxic by skin absorption, Skin sensitiser, Corrosive

DSL Status
All components of this product are on the Canadian DSL list.

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
Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

<table>
<thead>
<tr>
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<th>Revision Date</th>
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<tbody>
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New Jersey Right To Know Components

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

16. OTHER INFORMATION

Further information
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