Material Safety Data Sheet  
Glycidol MSDS

Section 1: Chemical Product and Company Identification

Product Name: Glycidol  
Catalog Codes: SLG1252, SLG2125  
CAS#: 556-52-5  
RTECS: UB4375000  
TSCA: TSCA 8(b) inventory: Glycidol  
CI#: Not available.  
Synonym:  
Chemical Name: Glycidol  
Chemical Formula: C3-H6-O2  

Contact Information:  
Sciencelab.com, Inc.  
14025 Smith Rd.  
Houston, Texas 77396  
US Sales: 1-800-901-7247  
International Sales: 1-281-441-4400  
Order Online: ScienceLab.com  
CHEMTREC (24HR Emergency Telephone), call:  
1-800-424-9300  
International CHEMTREC, call: 1-703-527-3887  
For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycidol</td>
<td>556-52-5</td>
<td>100</td>
</tr>
</tbody>
</table>

Toxicological Data on Ingredients: Glycidol: ORAL (LD50): Acute: 431 mg/kg [Mouse]. 420 mg/kg [Rat]. DERMAL (LD50): Acute: 1980 mg/kg [Rabbit]. GAS (LC50): Acute: 450 ppm 4 hour(s) [Mouse]. 820.2 ppm 4 hour(s) [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects:  
Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation (lung irritant). Severe over-exposure can result in death.

Potential Chronic Health Effects:  
CARCINOGENIC EFFECTS: Classified 1 (Known.) by NTP, + (PROVEN) by OSHA. Classified A3 (Proven for animal.) by ACGIH. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: PROVEN The substance is toxic to the reproductive system, gastrointestinal tract, upper respiratory tract, Metabolism, Urinary Systems, eye, lens or cornea. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to an

Section 4: First Aid Measures
Eye Contact:
Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. WARM water MUST be used. Do not use an eye ointment. Seek medical attention.

Skin Contact:
After contact with skin, wash immediately with plenty of water. WARM water MUST be used. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Serious Skin Contact:
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation: Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Serious Inhalation:
Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion:
Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

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Section 5: Fire and Explosion Data

<table>
<thead>
<tr>
<th>Flammability of the Product:</th>
<th>Combustible.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto-Ignition Temperature:</td>
<td>415°C (779°F)</td>
</tr>
<tr>
<td>Flash Points:</td>
<td>CLOSED CUP: 81°C (177.8°F).</td>
</tr>
<tr>
<td>Flammable Limits:</td>
<td>Not available.</td>
</tr>
<tr>
<td>Products of Combustion:</td>
<td>These products are carbon oxides (CO, CO2).</td>
</tr>
<tr>
<td>Fire Hazards in Presence of Various Substances:</td>
<td>Not available.</td>
</tr>
<tr>
<td>Fire Fighting Media and Instructions:</td>
<td>SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.</td>
</tr>
<tr>
<td>Special Remarks on Fire Hazards:</td>
<td>Not available.</td>
</tr>
<tr>
<td>Special Remarks on Explosion Hazards:</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 6: Accidental Release Measures

<table>
<thead>
<tr>
<th>Small Spill:</th>
<th>Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Spill:</td>
<td>Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.</td>
</tr>
</tbody>
</table>
Section 7: Handling and Storage

**Precautions:**
Keep locked up. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapour/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, metals, acids, alkalis.

**Storage:**
Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place. Ground all equipment containing material. Keep container dry. Keep in a cool place.

Section 8: Exposure Controls/Personal Protection

**Engineering Controls:**
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection:**
Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:**
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:**
TWA: 2 (ppm) from ACGIH (TLV) TWA: 25 (ppm) from OSHA (PEL) TWA: 25 (ppm) from NIOSH Australia: TWA: 25 (ppm) Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

**Physical state and appearance:** Liquid. (Viscous liquid.)

**Odor:** Not available.

**Taste:** Not available.

**Molecular Weight:** 74.08 g/mole

**Color:** Colorless.

**pH (1% soln/water):** Not available.

**Boiling Point:** 160°C (320°F)

**Melting Point:** Not available.

**Critical Temperature:** Not available.

**Specific Gravity:** 1.1115 (Water = 1)

**Vapor Pressure:** 0.9 mm of Hg (@ 20°C)

**Vapor Density:** 2.15 (Air = 1)

**Vapour:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.
Dispersion Properties:
Partially dispersed in methanol, n-octanol. See solubility in water, methanol, n-octanol.

Solubility: Partially soluble in hot water, methanol, n-octanol.

Section 10: Stability and Reactivity Data

Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Not available.
Incompatibility with various substances: Reactive with oxidizing agents, metals, acids, alkalis.
Corrosivity: Not available.
Special Remarks on Reactivity: Not available.
Special Remarks on Corrosivity: Not available.
Polymerization: No.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact. Inhalation. Ingestion.

Toxicity to Animals:
WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 420 mg/kg [Rat]. Acute dermal toxicity (LD50): 1980 mg/kg [Rabbit]. Acute toxicity of the gas (LC50): 450 ppm 4 hour(s) [Mouse].

Chronic Effects on Humans:
CARCINOGENIC EFFECTS: Classified 1 (Known.) by NTP, + (PROVEN) by OSHA. Classified A3 (Proven for animal.) by ACGIH. DEVELOPMENTAL TOXICITY: PROVEN The substance is toxic to the reproductive system, gastrointestinal tract, upper respiratory tract, Metabolism, Urinary Systems, eye, lens or cornea.

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant).

Special Remarks on Toxicity to Animals: Not available.
Special Remarks on Chronic Effects on Humans: Not available.
Special Remarks on other Toxic Effects on Humans: Not available.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:
Section 14: Transport Information

**DOT Classification:** CLASS 6.1: Poisonous material.

**Identification:** Toxic Liquid, Organic, n.o.s. (2,3-Epoxy-1-propanol) : UN2810 PG: III

**Special Provisions for Transport:** Not available.

Section 15: Other Regulatory Information

**Federal and State Regulations:**
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Glycidol. Pennsylvania RTK: Glycidol. Florida: Glycidol. Minnesota: Glycidol. Massachusetts RTK: Glycidol. New Jersey: Glycidol. TSCA 8(b) inventory: Glycidol. TSCA 8(a) PAIR: Glycidol.

**Other Regulations:**

**Other Classifications:**

**WHMIS (Canada):**
CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F). CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

**DSCL (EEC):**
R20/21/22- Harmful by inhalation, in contact with skin and if swallowed. R33- Danger of cumulative effects. R36/37/38- Irritating to eyes, respiratory system and skin. R42/43- May cause sensitization by inhalation and skin contact.

**HMIS (U.S.A.):**
- Health Hazard: 2
- Fire Hazard: 2
- Reactivity: 0
- Personal Protection: h

**National Fire Protection Association (U.S.A.):**
- Health: 2
- Flammability: 2
- Reactivity: 0
- Specific hazard:

**Protective Equipment:**
Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

Section 16: Other Information

**References:** Not available.

**Other Special Considerations:** Not available.

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