SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
- Product form: Substance
- Substance name: Glycerin
- Chemical name: 1,2,3-Trihydroxypropane
- CAS No: 56-81-5
- Product code: LC14850
- Formula: HOCH2CH(OH)CH2OH
- Synonyms: Glycerol

1.2. Relevant identified uses of the substance or mixture and uses advised against
- Use of the substance/mixture: For laboratory and manufacturing use only.

1.3. Details of the supplier of the safety data sheet
- LabChem Inc
  Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
  Zelienople, PA 16063 - USA
  T 412-826-5230 - F 724-473-0647
  info@labchem.com - www.labchem.com

1.4. Emergency telephone number
- Emergency number: CHEMTREC: 1-800-424-9300 or 011-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
- GHS-US classification: Not classified

2.2. Label elements
- GHS-US labelling: No labelling applicable

2.3. Other hazards
- Other hazards not contributing to the classification: None.

2.4. Unknown acute toxicity (GHS-US)
- No data available

SECTION 3: Composition/information on ingredients

3.1. Substance
- Substance type: Mono-constituent

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin (Main constituent)</td>
<td>(CAS No) 56-81-5</td>
<td>100</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

3.2. Mixture
- Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures
- First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation: Assure fresh air breathing. Allow the victim to rest.
- First-aid measures after skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries: Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media
Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture
No additional information available

5.3. Advice for firefighters
Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.
Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Protective equipment: Safety glasses. Gloves.
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment: Equip cleanup crew with proper protection.
Emergency procedures: Ventilate area.

6.2. Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections
See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Keep container closed when not in use.
Incompatible products: Sources of ignition. Direct sunlight.

7.3. Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th></th>
<th>USA ACGIH</th>
<th>ACGIH TWA (mg/m³)</th>
<th>USA OSHA</th>
<th>OSHA PEL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin (56-81-5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m³ mist</td>
<td></td>
<td>5 mg/m³ respirable</td>
</tr>
</tbody>
</table>
8.2. Exposure controls

Appropriate engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

Personal protective equipment: Avoid all unnecessary exposure.

Hand protection: Wear protective gloves.

Eye protection: Chemical goggles or safety glasses.

Respiratory protection: Wear appropriate mask.

Other information: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid

Molecular mass: 92.11 g/mol

Colour: Colourless.

Odour: Characteristic.

Odour threshold: No data available

pH: 5 10% solution

Relative evaporation rate (butylacetate=1): No data available

Melting point: 20 °C

Freezing point: No data available

Boiling point: 182 °C

Flash point: 160 °C

Self ignition temperature: 400 °C

Decomposition temperature: 290 °C

Flammability (solid, gas): No data available

Vapour pressure: No data available

Vapour pressure at 50 °C: 0.003 hPa

Relative vapour density at 20 °C: 3.18

Relative density: No data available

Density: 1.2613 g/ml

Solubility: Soluble in water. Soluble in ethanol.

Log Pow: 0

Log Kow: No data available

Viscosity, kinematic: 1181.3 cSt

Viscosity, dynamic: No data available

Explosive properties: No data available

Oxidising properties: No data available

Explosive limits: ≥ 1.1 vol %

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

### 10.6. Hazardous decomposition products


### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

**Acute toxicity**: Not classified

**Glycerin (56-81-5)**

<table>
<thead>
<tr>
<th>Route of Exposure</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>12600 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>21900 mg/kg</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**: Not classified  
  pH: 5 10% solution

**Serious eye damage/irritation**: Not classified  
  pH: 5 10% solution

**Respiratory or skin sensitisation**: Not classified

**Germ cell mutagenicity**: Not classified

**Carcinogenicity**: Not classified

**Reproductive toxicity**: Not classified

**Specific target organ toxicity (single exposure)**: Not classified

**Specific target organ toxicity (repeated exposure)**: Not classified

**Aspiration hazard**: Not classified

#### Potential Adverse human health effects and symptoms

Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1. Toxicity

**Glycerin (56-81-5)**

<table>
<thead>
<tr>
<th>Route of Exposure</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fishes</td>
<td>64 - 72 g/l</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability

**Glycerin (56-81-5)**

Persistence and degradability: Not established.

#### 12.3. Bioaccumulative potential

**Glycerin (56-81-5)**

<table>
<thead>
<tr>
<th>Route of Exposure</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Pow</td>
<td>0</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Other information: Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

**Waste disposal recommendations**: Dispose in a safe manner in accordance with local/national regulations.

**Ecology - waste materials**: Avoid release to the environment.

### SECTION 14: Transport information

In accordance with DOT

No dangerous good in sense of transport regulations

**Additional information**

Other information: No supplementary information available.
ADR
Transport document description:

Transport by sea
No additional information available

Air transport
No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations
Glycerin (56-81-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA
Glycerin (56-81-5)
Listed on the Canadian DSL (Domestic Substances List) inventory.
WHMIS Classification
Uncontrolled product according to WHMIS classification criteria

EU-Regulations
No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC
Not classified

15.2. National regulations
Glycerin (56-81-5)
Not listed on the Canadian Ingredient Disclosure List

15.3. US State regulations
No additional information available

SECTION 16: Other information

Other information: None.

NFPA health hazard: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard: 0 - Materials that will not burn.

NFPA reactivity: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
### HMIS III Rating

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
<td>Slight Hazard - Irritation or minor reversible injury possible</td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
<td>Minimal Hazard</td>
</tr>
<tr>
<td>Physical</td>
<td>0</td>
<td>Minimal Hazard</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>E</td>
<td></td>
</tr>
</tbody>
</table>

SDS US (GHS HazCom 2012)

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