

# Chemical Safety Data: Glycerol



|                             |  |
|-----------------------------|--|
| <b>Common Synonyms</b>      | 1,2,3-propanetriol, glycerine, glycerin, glyceryl alcohol, glycerol USP  |
| <b>Formula</b>              | C <sub>3</sub> H <sub>8</sub> O <sub>3</sub>   |
| <b>Physical Properties</b>  | Form: Viscous colourless liquid<br>Stability: Stable<br>Melting point: 17.8 C<br>Boiling point: 290 C<br>Specific gravity: 1.26<br>Flash point: 160 C<br>Critical temperature: 492.2 C<br>Critical pressure: 42.5 atm  |
| <b>Principal Hazards</b>    | Glycerol is generally regarded as a safe material for which no special handling precautions are required. However, it is flammable. It also feels oily, so may be a <u>slipping hazard if spilled on the floor</u> .   |
| <b>Safe Handling</b>        | Wear safety glasses if required by local rules. Clear up spills promptly.  |
| <b>Emergency</b>            | Eye contact: Immediately flush the eye with water. If irritation persists, call for medical help.<br>Skin contact: Wash off with water.<br>If swallowed: Call for medical help if the amount swallowed is large.<br>Glycerol is widely used in foods, so accidental consumption of a small amount is unlikely to be harmful. |
| <b>Disposal</b>             | Small amounts of glycerol may be flushed down the sink unless local rules prohibit this. Glycerol is viscous, so unless care is taken to wash all liquid away, some may remain in the sink and pose a fire risk.   |
| <b>Protective Equipment</b> | Safety glasses if required by local rules.   |
| <b>Further Information</b>  | <u>Glycerol</u><br><u>Chemicals in the HSci database</u><br><u>More extensive safety data</u>  |



# SIGMA-ALDRICH

## Material Safety Data Sheet

Date Printed: 05/13/2005

Date Updated: 05/10/2005

Version 1.10

### Section 1 - Product and Company Information

|                                  |  |                         |                        |
|----------------------------------|--|-------------------------|------------------------|
| <b>Product Name</b>              | MISSION SHRNA BACTERIAL GLYCEROL STOCK |                         |                        |
| <b>Product Number</b>            | SHGLY                                  |                         |                        |
| <b>Brand</b>                     | Sigma Chemical                         |                         |                        |
| <b>Company</b>                   | Sigma-Aldrich                          |                         |                        |
| <b>Street Address</b>            | 3050 Spruce Street                     |                         |                        |
| <b>City, State, Zip, Country</b> | SAINT LOUIS, MO 63103 US               |                         |                        |
| <b>Technical Phone:</b>          | 314 771 5765                           | <b>Emergency Phone:</b> | 414 273 3850 Ext. 5996 |
| <b>Fax:</b>                      | 800 325 5052                           |                         |                        |

### Section 2 - Composition/Information on Ingredient

| <u>Substance Name</u>                  | <u>CAS #</u> | <u>SARA 313</u> | <u>EC no</u> | <u>Annex I Index Number</u> |
|--|--------------|-----------------|--------------|-----------------------------|
| MISSION SHRNA BACTERIAL GLYCEROL STOCK | None         | No              |              |                             |

| <u>Ingredient Name</u>   | <u>CAS #</u> | <u>Percent</u> | <u>SARA 313</u> |
|--|--------------|----------------|-----------------|
| The hazards identified with this product are those associated with the following component(s):<br>GLYCEROL | 56-81-5      | <= 10.000 %    | No              |

**Formula**  
**Synonyms**

### Section 3 - Hazards Identification

#### Emergency Overview

Caution: Avoid contact and inhalation. Target organ(s): Kidneys.

#### HMIS Rating

Health: 1\*      Flammability: 0      Reactivity: 0

#### NFPA Rating

Health: 1      Flammability: 0      Reactivity: 0

\*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

### Section 4 - First Aid Measures

#### Oral Exposure

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

#### Inhalation Exposure

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

**Dermal Exposure**

In case of contact, immediately wash skin with soap and copious amounts of water.

**Eye Exposure**

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

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**Section 5 - Fire Fighting Measures**

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**Autoignition Temp:** N/A

**Extinguishing Media****Suitable**

Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

**Firefighting****Protective Equipment**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

**Specific Hazard(s)**

Emits toxic fumes under fire conditions.

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**Section 6 - Accidental Release Measures**

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**Procedure(s) of Personal Precaution(s)**

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

**Methods for Cleaning Up**

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

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**Section 7 - Handling and Storage**

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**Handling****User Exposure**

Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

**Storage****Suitable**

Keep tightly closed. Store at -20°C

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**Section 8 - Exposure Controls / PPE**

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**Engineering Controls**

Safety shower and eye bath. Mechanical exhaust required.

**Personal Protective Equipment****Respiratory**

Government approved respirator.

**Hand**

Compatible chemical-resistant gloves.

**Eye**

Chemical safety goggles.

**Skin-Specific**

Chemical resistant apron.

## General Hygiene Measures

Wash thoroughly after handling. Wash contaminated clothing before reuse.

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## Section 9 - Physical/Chemical Properties

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### Appearance

#### Physical State

Liquid

**Molecular Weight:** N/A

**pH** N/A

**BP/BP Range** N/A

**MP/MP Range** N/A

**Freezing Point** N/A

**Vapor Pressure** N/A

**Vapor Density** N/A

**Saturated Vapor Conc.** N/A

**SG/Density** N/A

**Bulk Density** N/A

**Odor Threshold** N/A

**Volatile%** N/A

**VOC Content** N/A

**Water Content** N/A

**Solvent Content** N/A

**Evaporation Rate** N/A

**Viscosity** N/A

**Partition Coefficient** N/A

**Decomposition Temp.** N/A

**Flash Point °F** N/A

**Flash Point °C** N/A

**Explosion Limits** N/A

**Flammability** N/A

**Autoignition Temp** N/A

**Solubility** N/A

N/A = not available

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## Section 10 - Stability and Reactivity

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### Stability

#### Stable

Stable.

#### Materials to Avoid

Strong oxidizing agents.

### Hazardous Decomposition Products

#### Hazardous Decomposition Products

Nature of decomposition products not known.

**Hazardous Polymerization**  
**Hazardous Polymerization**  
Will not occur.

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## Section 11 - Toxicological Information

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### Route of Exposure

#### Skin Contact

May cause skin irritation.

#### Skin Absorption

May be harmful if absorbed through the skin.

#### Eye Contact

May cause eye irritation.

#### Inhalation

May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

#### Ingestion

May be harmful if swallowed.

### Target Organ(s) or System(s)

Kidneys.

### Signs and Symptoms of Exposure

Prolonged exposure can cause: Nausea, headache, and vomiting.

**RTECS Number:** N/A

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## Section 12 - Ecological Information

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No data available.

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## Section 13 - Disposal Considerations

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### Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material.

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Observe all federal, state, and local environmental regulations.

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## Section 14 - Transport Information

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### DOT

**Proper Shipping Name:** None

**Non-Hazardous for Transport:** This substance is considered to be non-hazardous for transport.

### IATA

**Non-Hazardous for Air Transport:** Non-hazardous for air transport.

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## Section 15 - Regulatory Information

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### US Classification and Label Text

#### US Statements

Caution: Avoid contact and inhalation. Target organ(s): Kidneys.

### United States Regulatory Information

**SARA Listed:** No

### Canada Regulatory Information

#### WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No  
NDSL: No

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## Section 16 - Other Information

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### Disclaimer

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. Sigma-Aldrich Inc., 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. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.