

# MATERIAL SAFETY DATA SHEET

## Glycerin

This MSDS is valid for all grades and catalog #'s

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### 1. IDENTIFICATION OF SUBSTANCE / MIXTURE AND OF SUPPLIER

**Product Identifier:** High Purity Chemicals  
**Synonyms:** 1,2,3-Propanetriol; Glycerol; ,2,3-TRIHYDROXYPROPANE; Glyceritol;  
Glycic Alcohol; Glycerine  
**Other means of identification:** CAS No. 56-81-5  
EINECS No. 200-289-5  
**Recommended use of the chemical and restrictions on use:**  
General use solvent

#### Supplier Details:

**Pharmco Products, Inc.**  
58 Vale Road, Brookfield,  
CT 06804, USA.  
Tel: 203.740.3471  
Fax: 203.740.3481  
CCN17213

**Pharmco Products, Inc.**  
1101 Isaac Shelby Drive, Shelbyville,  
KY 40065, USA.  
Tel: 502.232.7600  
Fax: 502.633.6100  
CCN17213

**Emergency Contact:** CHEMTREC: 1.800.424.9300 (USA) / +1.703.527.3887 (International)

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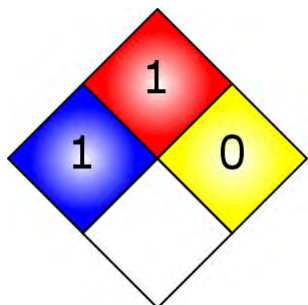
### 2. HAZARDS IDENTIFICATION

**OSHA Hazards:**  
Target organ effect

**Target Organs:**  
Kidney

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**NFPA**



**Signal Word:**  
WARNING!

**Hazard statement(s)**

H316 Causes mild skin irritation.  
H320 Causes eye irritation

**Precautionary statement(s)**

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.

**GHS Classification(s)**

Eye irritation (Category 2B)  
Skin irritation (Category 3)

**Other hazards which do not result in classification:**

**Potential Health Effects:**

Organ	Description
Eyes	Can be irritating to the eyes
Ingestion	Can be harmful if ingested.
Inhalation	Can be harmful if inhaled.
Skin	Can be irritating to the skin

### 3. COMPOSITION AND INFORMATION ON INGREDIENTS

**Chemical identity:** Glycerin  
**Common name / Synonym:** 1,2,3-Propanetriol; Glycerol; ,2,3-TRIHYDROXYPROPANE; Glyceritol; Glycic Alcohol; Glycerine  
**CAS number:** 56-81-5  
**EINECS number:** 200-289-5  
**ICSC number:** 0624

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**RTECS #:** MA8050000

<b>% Weight</b>	<b>Material</b>	<b>CAS</b>
100	Glycerine	56-81-5

## 4. FIRST AID MEASURES

### General advice

Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

### Skin

Wash skin with soap and copious amounts of water. Seek medical attention.

### Inhalation

Remove person to fresh air. If signs/symptoms continue, get medical attention. Give oxygen or artificial respiration as needed.

### Eyes

Thoroughly flush the eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation persists, seek medical attention.

### Ingestion

DO NOT induce vomiting. If vomiting does occur, have victim lean forward to prevent aspiration. Rinse mouth with water. Seek medical attention. Never give anything by mouth to an unconscious individual.

## 5. FIRE FIGHTING MEASURES

### Suitable (and unsuitable) extinguishing media:

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

### Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):

Carbon oxides expected to be the primary hazardous combustion product.

### Special protective equipment and precautions for firefighters:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Keep unopened containers cool by spraying with water.

### Flammable Properties

#### Flash point

199 °C (390 °F) - closed cup

#### Autoignition temperature

370 °C (698 °F)

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## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures:

Do not inhale vapors, mist, or gas. Avoid dust formation.

### Environmental precautions:

Stop leak. Contain spill if possible and safe to do so. Prevent product from entering drains.

### Methods and materials for containment and cleaning up:

Absorb with an inert dry material and place in an appropriate waste disposal container. Keep disposal containers closed when finished.

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## 7. HANDLING AND STORAGE

### Precautions for safe handling:

Do not get on skin or in eyes. Do not inhale vapor or mist. Take normal fire prevention measures.

### Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a cool, dry and well-ventilated place. Avoid moisture.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters, e.g., occupational exposure limit values or biological limit values:

#### Occupational Exposure Limits

Component	Source	Type	Value	Note
Glycerine	US (OSHA)	TWA	15 mg/m <sup>3</sup>	29 CFR 1910.1000 Table Z-1 Limits for Air Contaminants
Glycerine	US (ACGIH)	TWA	10 mg/m <sup>3</sup>	ACGIH Threshold Limit Value

### Individual protection measures, such as 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:

Use chemical safety goggles and/or a full face shield where splashing is possible. Use equipment approved by

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appropriate government standards, such as NIOSH (US) or EN166 (EU) Maintain eye wash fountain and quick-drench facilities in work area.

**Skin and body protection:**

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Hygiene measures:**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance (physical state, color, etc.)</b>	Clear, viscous liquid
<b>Odor</b>	Odorless
<b>Odor threshold</b>	Specific data not available
<b>pH</b>	Specific data not available
<b>Freezing point</b>	Melting Point; 19 °C (66 °F)
<b>Initial boiling point and boiling range</b>	171 °C (340 °F)
<b>Flash point</b>	199 °C (390 °F) - closed cup
<b>Evaporation rate</b>	Specific data not available
<b>Flammability (solid, gas)</b>	Not flammable or combustible
<b>Upper / Lower flammability or explosive limits</b>	19% (V) / 2.7% (V)
<b>Vapor pressure</b>	0.0033 hPa (0.0025 mmHg) at 50 °C (122 °F)
<b>Vapor Density</b>	3.1
<b>Relative Density</b>	1.25 g/cm <sup>3</sup>
<b>Solubility(ies)</b>	Completely miscible in water
<b>Partition coefficient n-octanol/water(ies)</b>	log Pow: -1.75
<b>Auto-ignition temperature</b>	370 °C (698 °F)
<b>Decomposition temperature</b>	Specific data not available
<b>Formula (GLYCERINE)</b>	C <sub>3</sub> H <sub>8</sub> O <sub>3</sub>
<b>Molecular Weight (GLYCERINE)</b>	92.09 g/mol

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	No data available
<b>Conditions to avoid (e.g., static discharge, shock or vibration)</b>	No data available
<b>Incompatible materials</b>	Strong oxidizing agents, strong bases
<b>Hazardous decomposition products</b>	Carbon oxides are expected to be, under fire conditions, the primary hazardous decomposition products.

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## 11. TOXICOLOGICAL INFORMATION

- Glycerine 56-81-5

### Product Summary:

No data available for the mutagenic, teratogenic, or reproductive effects of the product. No data available to designate product as an aspiration hazard or to cause specific target organ toxicity through single or repeated exposure

### Acute Toxicity:

LD50 (Dermal)	Rabbit	>10,000 mg/kg	
LD50 Oral	Rat	12,600 mg/kg	

### Irritation:

#### Eyes

Rabbit - mild eye irritation - 24 hours

#### Respiratory or Skin Sensitization

No data available

#### Skin

Skin - rabbit - Mild skin irritation - 24 hours

### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable 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.

### Other Hazards

Organ	Description
Eyes	Can be irritating to the eyes.
Ingestion	Can be harmful if ingested.
Inhalation	Can be harmful if inhaled. Can be irritating to the respiratory tract.
Skin	Can be harmful if absorbed through skin. Can be irritating to the skin.

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## 12. ECOLOGICAL INFORMATION

- Glycerine 56-81-5
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**Ecotoxicity (aquatic and terrestrial, where available):**

**Ecotoxicity**

No data available

**Persistence and degradability:**

No data available

**Bioaccumulative potential:**

No data available

**Other adverse effects:**

No data available

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## 13. DISPOSAL CONSIDERATIONS

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:

Recycle to process, if possible. Consult your local or regional authorities.

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## 14. TRANSPORT INFORMATION

Description of waste residues and information on their safe handling and methods of disposal:

<b>UN number</b>	Not a dangerous good.
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**IMDG**

UN-Number: Not a dangerous good.

Marine pollutant: No

**IATA**

UN-Number: Not a dangerous good.

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## 15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question:

**OSHA Hazards**

Target organ effect

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All ingredients are on the following inventories or are exempted from listing

<b>Country</b>	<b>Notification</b>
Australia	AICS
Canada	DSL
China	IECS
European Union	EINECS
Japan	ENCS/ISHL
Korea	ECL
New Zealand	NZIoC
Philippines	PICCS
United States of America	TSCA

#### **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**

Chronic Health Hazard

#### **CERCLA**

No chemicals in this material with known CAS numbers are subject to the reporting requirements of CERCLA

#### **Massachusetts Right To Know Components**

Glycerine CAS-No. 56-81-5 Revision Date 2007-03-01

#### **Pennsylvania Right To Know Components**

Glycerine CAS-No. 56-81-5 Revision Date 2007-03-01

#### **New Jersey Right To Know Components**

Glycerine CAS-No. 56-81-5 Revision Date 2007-03-01

#### **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.



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## **16. OTHER INFORMATION: INCLUDING INFORMATION ON PREPARATION AND REVISION OF THE SDS**

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