

**SAFETY DATA SHEET**

Creation Date 21-December-2009

Revision Date 28-March-2024

Revision Number 3

**1. Identification**

**Product Name** Glycerol

**Cat No. :** 38988

**CAS-No** 56-81-5  
**Synonyms** Glycyl alcohol; Glycerol; 1,2,3-Propanetriol

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Food, drug, pesticide or biocidal product use.

**Details of the supplier of the safety data sheet****Company****Importer/Distributor**

Fisher Scientific  
112 Colonnade Road,  
Ottawa, ON K2E 7L6,  
Canada  
Tel: 1-800-234-7437

**Emergency Telephone Number**For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887**2. Hazard(s) identification****Classification****WHMIS 2015 Classification**

Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)

**Physical Hazards Not Otherwise Classified**

Category 1

Hazardous polymerization may occur

**Label Elements****Signal Word**

Danger

Hazardous polymerization may occur

**Prevention**

Keep cool. Protect from sunlight

**Disposal**

Dispose of contents/container to an approved waste disposal plant

### 3. Composition/Information on Ingredients

Component	CAS-No	Weight %
1,2,3-Propanetriol	56-81-5	100

### 4. First-aid measures

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
<b>Inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
<b>Most important symptoms/effects Notes to Physician</b>	None reasonably foreseeable. Treat symptomatically

### 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Dry chemical, soda ash, lime or sand.
<b>Unsuitable Extinguishing Media</b>	DO NOT USE WATER OR FOAM
<b>Flash Point</b>	193 °C / 379.4 °F
<b>Method -</b>	No information available
<b>Autoignition Temperature</b>	400 °C / 752 °F
<b>Explosion Limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	1.1 vol %
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	No information available

#### Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

#### Hazardous Combustion Products

None known.

#### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### NFPA

Health  
2

Flammability  
1

Instability  
0

Physical hazards  
N/A

### 6. Accidental release measures

**Personal Precautions**  
**Environmental Precautions**

Use personal protective equipment as required. Ensure adequate ventilation.  
 Should not be released into the environment. See Section 12 for additional Ecological Information.

**Methods for Containment and Clean Up** Sweep up and shovel into suitable containers for disposal.

## 7. Handling and storage

**Handling** Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation.

**Storage.** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Incompatible Materials. Strong oxidizing agents.

## 8. Exposure controls / personal protection

### Exposure Guidelines

Component	Alberta	British Columbia	Ontario TWAEV	Quebec	ACGIH TLV	OSHA PEL	NIOSH
1,2,3-Propanetriol	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 3 mg/m <sup>3</sup>		TWA: 10 mg/m <sup>3</sup>		(Vacated) TWA: 10 mg/m <sup>3</sup> (Vacated) TWA: 5 mg/m <sup>3</sup> TWA: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	

#### Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

**Engineering Measures** None under normal use conditions.

### Personal protective equipment

**Eye Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Hand Protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

Glove material	Breakthrough time	Glove thickness	Glove comments
Nitrile rubber	See manufacturers recommendations	-	Splash protection only

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

#### Respiratory Protection

No protective equipment is needed under normal use conditions.

**Recommended Filter type:** Particle filter

### Environmental exposure controls

No information available.

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

## 9. Physical and chemical properties

Physical State	Liquid
Appearance	Clear
Odor	Slight
Odor Threshold	No information available
pH	No information available
Melting Point/Range	20 °C / 68 °F
Boiling Point/Range	290 °C / 554 °F
Flash Point	193 °C / 379.4 °F
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	No data available
Lower	1.1 vol %
Vapor Pressure	.0025 mmHg @ 50 °C
Vapor Density	3.17 (Water = 1.0)
Specific Gravity	1.2610 @ 20°C
Solubility	Miscible with water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	400 °C / 752 °F
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	C3H8O3
Molecular Weight	92.05

## 10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions. Unstable if heated.
Conditions to Avoid	Incompatible products. Excess heat.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	None known
Hazardous Polymerization	Hazardous polymerization may occur.
Hazardous Reactions	None under normal processing.

## 11. Toxicological information

### Acute Toxicity

#### Product Information

##### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
1,2,3-Propanetriol	12600 mg/kg ( Rat )	> 10 g/kg ( Rabbit )	> 2.75 mg/L/4h ( Rat )(mist)

Toxicologically Synergistic Products No information available

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Irritating to eyes and skin

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
1,2,3-Propanetriol	56-81-5	Not listed	Not listed	Not listed	Not listed	Not listed

**Mutagenic Effects** Mutagenic effects have occurred in humans.

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** None known

**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects, both acute and delayed** No information available

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** Tumorigenic effects have been reported in experimental animals.

## 12. Ecological information

### Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
1,2,3-Propanetriol	Not listed	LC50: 51 - 57 mL/L, 96h static (Oncorhynchus mykiss)	Not listed	Not listed

**Persistence and Degradability** Persistence is unlikely

**Bioaccumulation/ Accumulation** No information available.

**Mobility** .

Component	log Pow
1,2,3-Propanetriol	-1.75

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

**DOT** Not regulated

**TDG** Not regulated

**IATA** Not regulated

**IMDG/IMO** Not regulated

## 15. Regulatory information

**International Inventories**

Component	CAS-No	DSL	NDSL	TSCA	TSCA Inventory notification - Active-Inactive	EINECS	ELINCS	NLP
1,2,3-Propanetriol	56-81-5	X	-	X	ACTIVE	200-289-5	-	-

Component	CAS-No	IECSC	KECL	ENCS	ISHL	TCSI	AICS	NZIoC	PICCS
1,2,3-Propanetriol	56-81-5	X	KE-29297	X	X	X	X	X	X

**Legend:**

X - Listed '-' - Not Listed

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances**IECSC** - Chinese Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**ENCS** - Japanese Existing and New Chemical Substances**AICS** - Australian Inventory of Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**Canada**

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

**Other International Regulations****Authorisation/Restrictions according to EU REACH**

Not applicable

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

Component	CAS-No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
1,2,3-Propanetriol	56-81-5	Listed	Not applicable	Not applicable	Not applicable

Component	CAS-No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
1,2,3-Propanetriol	56-81-5	Not applicable	Not applicable	Not applicable	Not applicable

**16. Other information****Prepared By**

Product Safety Department  
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**Revision Summary**

New emergency telephone response service provider.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other

materials or in any process, unless specified in the text

**End of SDS**