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# Material Safety Data Sheet

## Glycerin

### Section 1 - Chemical Product Identification

MSDS Name: Glycerin

Synonyms: Glycerol; 1,2,3-Propanetriol; Glycyl alcohol; 1,2,3-Trihydroxypropane; Glycerine.

Emergency Telephone Numbers:

800-255-3924 ChemTel. (United States)

+ 1 01 813-248-0585 (Outside the United States)

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
56-81-5	Glycerin	100	200-289-5

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

**Appearance:** Clear liquid.

**Caution!** May cause eye, skin, and respiratory tract irritation. This is expected to be a low hazard for usual industrial handling.

**Target Organs:** No data found.

#### Potential Health Effects

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation. Low hazard for usual industrial handling.

**Ingestion:** Ingestion of large amounts may cause gastrointestinal irritation. Low hazard for usual industrial handling. May cause headache.

**Inhalation:** Low hazard for usual industrial handling. Inhalation of a mist of this material may cause respiratory tract irritation.

**Chronic:** No information found.

### Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid..

**Skin:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

**Ingestion:** Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Get medical aid if irritation or symptoms occur.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressuredemand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.

**Extinguishing Media:** Use water spray to cool fire-exposed containers. Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** 193 deg C ( 379.40 deg F)

**Autoignition Temperature:** 400 deg C ( 752.00 deg F)

Explosion Limits, Lower: 1.1

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 1; Flammability: 1; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Wash hands before eating. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Wash clothing before reuse.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. No special precautions indicated.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Chemical Name	ACGIH	NIOSH	OSHA - Final PEIs
Glycerin	10 mg/m <sup>3</sup> TWA	none listed	15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction)

**OSHA Vacated PELs:** Glycerin: 10 *mg/m<sup>3</sup>* TWA (total dust); 5 *mg/m<sup>3</sup>* TWA (respirable fraction)

### **Personal Protective Equipment**

**Eyes:** 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.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to minimize contact with skin..

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## **Section 9 - Physical and Chemical Properties**

**Physical State:** Liquid

**Appearance:** Clear

**Odor:** faint odor

**pH:** Not available.

**Vapor Pressure:** .0025 mm Hg @ 5

**Vapor Density:** 3.17 (H<sub>2</sub>O=1)

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 290 deg C

**Freezing/Melting Point:** 20 deg F

**Decomposition Temperature:** 290 deg C Solubility: Miscible in water. Insol. in chloroform,

**Specific Gravity/Density:** 1.2610g/cm<sup>3</sup> @ 20°C

**Molecular Formula:** C<sub>3</sub>H<sub>8</sub>O<sub>3</sub>

**Molecular Weight:** 92.0542

## **Section 10 - Stability and Reactivity**

**Chemical Stability:** Stable.

**Conditions to Avoid:** Incompatible materials, ignition sources, excess heat.

**Incompatibilities with Other Materials:** Acetic anhydride, potassium permanganate, strong acids, caustics (e.g. ammonia, ammonium hydroxide, calcium hydroxide, potassium hydroxide, sodium hydroxide), isocyanates, oxidizing agents, aliphatic amines.

**Hazardous Decomposition Products:** Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

**Hazardous Polymerization:** Will not occur.

## **Section 11 - Toxicological Information**

**RTECS#:**

**CAS# 56-81-5:** MA8050000

**LDSO/LCSO:** CAS# 56-81-5:

Draize test, rabbit, eye: 126 mg Mild;

Draize test, rabbit, eye: 500 mg/24H Mild;

Draize test, rabbit, skin: 500 mg/24H Mild;

Inhalation, rat: LC<sub>50</sub> = >570 mg/m<sup>3</sup>/1H; Oral, mouse: LD<sub>50</sub> = 4090 mg/kg;

Oral, rabbit: LD<sub>50</sub> = 27 gm/kg;

Oral, rat: LD<sub>50</sub> = 12600 mg/kg;

Skin, rabbit: LD<sub>50</sub> = >10 gm/kg;

**Carcinogenicity:**

CAS# 56-81-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information available. Teratogenicity: No information available.

Reproductive Effects: No information available. Mutagenicity: No information available.

**Neurotoxicity:** No information available.

**Other Studies:****Section 12 - Ecological Information**

**Ecotoxicity:** No data available. Cas# 56-81-5:LC50 (96 Hr.) rainbow trout = 50-67 mg/L; **12 degrees CLC50 (96 Hr.) goldfish = >5000 mg/L**

**Environmental:** No information available.

**Physical:** No information available.

**Other:** No information available.

**Section 13 - Disposal Considerations**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. us EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

**Section 14 - Transport Information**

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	No information available.

**Section 15 - Regulatory Information****US FEDERAL****TSCA**

CAS# 56-81-5 is listed on the TSCA inventory.

**Health & Safety Reporting List**

None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**

None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**

None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**

None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs**

None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances**

None of the chemicals in this product have a TPQ.

**SARA Codes**

CAS # 56-81-5: delayed. **Section 313** No chemicals are reportable under Section 313.

**Clean Air Act:**

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

**Clean Water Act:**

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.  
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**OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**

CAS# 56-81-5 can be found on the following state right to know lists: Pennsylvania, Minnesota, Massachusetts.

**California Prop 65**

California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations European Labeling in Accordance with EC Directives**

**Hazard Symbols:**

Not available.

**Risk Phrases:**

**Safety Phrases:**

S 24/25 Avoid contact with skin and eyes.

**WGK (Water Danger/Protection)**

CAS# 56-81-5: 0

**Canada - DSL/NDSL**

CAS# 56-81-5 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of Not controlled..

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations. **Canadian Ingredient Disclosure List**

**Section 16 - Additional Information**

**MSDS Creation Date:** 7/20/1999 **Revision #7 Date:** 09/17/2010

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the manufacturer be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the manufacturer has been advised of the possibility of such damages.*