

MATERIAL SAFETY DATA SHEET

GLYCERIN

Section 1 - Chemical Product

MSDS Name: Glycerin Material Safety Data Sheet

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

Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content	EINECS#
56-81-5	Glycerin	100	200-289-5

Hazard Symbols: None Listed.

Risk Phrases: None Listed.

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Not available.

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:

Section 5 - FIRE FIGHTING MEASURES

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, 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.

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.

Exposure Limits CAS# 56-81-5: United Kingdom, WEL - TWA: 10 mg/m³ TWA (mist) United Kingdom, WEL - STEL: 30 mg/m³ STEL (mist) United States OSHA: 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction) Belgium - TWA: 10 mg/m³ VLE (mist) France - VME: 10 mg/m³ VME Malaysia: 10 mg/m³ TWA (mist) Netherlands: 10 mg/m³ MAC (mist) Spain: 10 mg/m³ VLA-ED 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

Color: Clear

Odor: faint odor

pH: Not available.

Vapor Pressure: .0025 mm Hg @ 5

Viscosity: Not available.

Boiling Point: 290 deg C

Freezing/Melting Point: 20 deg F

Autoignition Temperature: 400 deg C (752.00 deg F)

Flash Point: 193 deg C (379.40 deg F)

Explosion Limits, lower: 1.1

Explosion Limits, upper: Not available.

Decomposition Temperature: 290 C

Solubility in water: Miscible in water. Insol. in chloroform,

Specific Gravity/Density: 1.2610g/cm³ @ 20C

Molecular Formula: C₃H₈O₃

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 LD50/LC50:

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: LC50 = >570 mg/m³/1H; Oral, mouse: LD50 = 4090 mg/kg; Oral, rabbit: LD50 = 27 gm/kg; Oral, rat: LD50 = 12600 mg/kg; Skin, rabbit: LD50 = >10 gm/kg.

Carcinogenicity:

Glycerin - Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity:

Cas# 56-81-5: LC50 (96 Hr.) rainbow trout = 50-67 mg/L; 12 degrees C LC50 (96 Hr.) goldfish = >5000 mg/L

Section 13 - DISPOSAL CONSIDERATIONS

Products which are considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local waste regulator for advice. Empty containers must be decontaminated before returning for recycling.

Section 14 - TRANSPORT INFORMATION

IATA

Shipping Name: Not regulated.

Hazard Class:

UN Number:

Packing Group:

IMO

Shipping Name: Not regulated.

Hazard Class:

UN Number:

Packing Group:

RID/ADR

Shipping Name: Not regulated.

Hazard Class:

UN Number:

Packing group:

Section 15 - REGULATORY INFORMATION

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

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

CAS# 56-81-5 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

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

16. Other Information

N/A