

SAFETY DATA SHEET

REFINED GLYCERINE USP / EP / BP GRADE

SECTION 1: IDENTIFICATION OF THE HAZARDOUS CHEMICAL

1.1 Product Details

Product Name	<i>Glycerine</i>
Trade Name	<i>Refined Glycerine USP / EP / BP</i>
Synonyms	<i>Glycerine; 1,2,3-Propanetriol; Glycerol; Glycerine</i>
Chemical Name	<i>Propane-1,2,3-triol</i>

SECTION 2: HAZARD IDENTIFICATION

Classification of the substance according to Regulation (EC) No.1272/2008	<i>Not classified as hazardous</i>
Physical/Chemical Hazards	<i>Not classified as hazardous</i>
Environmental Hazards	<i>Not classified as hazardous</i>
Potential Health Hazards:	
Skin	<i>May cause slight irritation on prolonged or repeated contact. Heated product may cause thermal burns if contacted</i>
Eye	<i>May cause slight irritation.</i>
Inhalation	<i>Glycerine mist may cause irritant to respiratory tract.</i>
Ingestion	<i>Not likely to be harmful unless excessive amount.</i>
Carcinogenicity	<i>No evidence of carcinogenic.</i>
Mutagenicity	<i>No evidence of mutagenic.</i>

SECTION 3: COMPOSITION AND INFORMATION OF THE INGREDIENTS OF THE HAZARDOUS CHEMICAL

Composition	EC Number	CAS Number	%	Classification
<i>Propane-1,2,3-triol</i>	<i>200-289-5</i>	<i>56-81-5</i>	<i>99.0 to 100.0</i>	<i>Not classified as hazardous</i>

SECTION 4: FIRST AID MEASURES

Eye Contact	<i>Immediately flush the eye with plenty of water for at least fifteen minutes. Seek medical attention should irritation occur and persists.</i>
Skin Contact	<i>Remove contaminated clothing – launder before use. Wash gently and thoroughly the contaminated skin with running water and soap. Seek medical attention should irritation occur and persists.</i>
Inhalation	<i>Use self-contained breathing equipment if in confined place. Evacuate the victim to a safe and well ventilated area immediately. Seek immediate medical attention.</i>
Ingestion	<i>Wash out mouth with water. Do not induce vomiting. Seek immediate medical attention.</i>

SECTION 5: FIRE FIGHTING MEASURES

Fire – fighting Media	<i>Dry chemical, foam, carbon dioxide extinguishers for small fire only.</i>
Unsuitable extinguisher media	<i>Water stream may splash the burning liquid and spread fire.</i>
Protective Equipment	<i>Full protective clothing and self-contained breathing apparatus.</i>
Exposure hazards	<i>Acrolein may be formed during burning.</i>
Unusual Fire and Explosion Hazards	<i>Oil soaked rags can cause spontaneous combustion if not handled properly. Before disposal, wash rags with soap and water and dry in well ventilated area.</i>
Fire Fighting Instruction	<i>Evacuate non-emergency personnel to a safe area. Firefighters should use self – contained breathing apparatus to avoid exposure to smoke and vapor.</i>

SECTION 6: ACCIDENTAL RELEASE MEASURE

Personal Precaution	<i>For non-emergency personnel:</i> <i>Isolate contaminated area. Avoid contact with skin, eyes and clothing.</i> <i>For emergency responders (advise for fire fighters):</i> <i>Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.</i>
Personal Protection	<i>Wear full protective clothing, safety boot, goggles and nitrile glove.</i>
Environmental Precautions	<i>Prevent or minimize contamination of soil and water. Prevent from entering into drains by using appropriate barriers such as sand. Inform relevant authorities if contaminations occur.</i>
Clean up Method	<i>Absorb with sand or similar inert absorbent material. Transfer product to suitably labelled container for disposal. Flush contaminated area with plenty of water.</i>

SECTION 7: HANDLING AND STORAGE

General precautions	<i>None.</i>
Handling	<i>Although this product has low hazard rating. Contamination with skin and eyes should minimize as part of good industrial hygiene practice. Prevent formation of mist. Wear nitrile glove and wear goggle when handling especially at elevated temperatures.</i>
Storage	<i>Keep in cool dry well-ventilated area, avoid extreme heat and cool, direct fire, incompatible oxidizing agents; store in clean dry stainless steel, fiberglass or resin lined vessels. Store in tight containers to prevent moisture pick up from air. High temperature may degrade quality of product dependent on time and temperature of exposure. Exposure to sunlight especially ultraviolet light should be minimized to avoid quality problem.</i>

SECTION 8: EXPOSURE CONTROL AND PERSONAL PROTECTION

Control parameters	<i>OSHA PEL Exposure Limit = *TWA value for Glycerine mist is 10 mg/m³ *TWA= 8 hour time weighted average exposure Biological monitoring = Not applicable</i>
Engineering Controls	<i>Use adequate ventilation and or local exhaust ventilation to meet exposure limit requirements if mist generate.</i>
Personal Protective Equipment Eye/ Face Protection	<i>Use safety glasses. Wear goggles if mist generate.</i>
Skin Protection	<i>Wear standard work clothes, safety shoes or boots (chemical resistant type)</i>
Hand Protection	<i>Nitrile glove or other suitable type of chemical resistant glove</i>
Respiratory Protection	<i>Use DOSH (Department of Safety and Health) approved mist respirator if mist generate.</i>
Environmental Exposure	<i>According to local environmental law or environmental protection legislation</i>

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	<i>Colourless Syrupy Liquid</i>
Odour	<i>Odourless</i>
Solubility In Water	<i>Miscible</i>
Boiling Point (°C)	<i>290 @ 760 mm Hg</i>
Specific Gravity @25°C	<i>>1.2608</i>
Flash Point Closed Cup	<i>>180°C</i>

SECTION 10: STABILITY AND REACTIVITY

Stability	<i>Stable under normal use conditions</i>
Conditions to avoid	<i>Product can decompose at elevated temperatures</i>
Incompatibles	<i>Avoid contact with oxidizing materials such as Potassium Permanganate, Chromium Trioxide or other strong acid such as Nitric Acid</i>
Hazard decomposition products	<i>Thermal decomposition may release acrolein</i>

SECTION 11: TOXICOLOGICAL INFORMATION

Basis of assessment	<i>Toxicological data have not been determined specifically for these products. Information given is based on gathered information of the product and its data, knowledge of the components and the toxicology of similar products.</i>
Acute toxicity:	<i>LD50 oral, rat = > 12 g/kg LC50 inhalation, rat = > 570mg/ m3/ 1Hr LD50 Dermal, rabbit = > 10 g/kg</i>
Skin Corrosion/ Irritation, rabbit	<i>Not Irritating</i>
Eye Irritation, rabbit	<i>Not Irritating</i>
Routes of Exposure:	<i>By eye/skin contact, inhalation or ingestion.</i>

SECTION 12: ECOLOGICAL INFORMATION

Basis of assessment	<i>Ecological data have not been determined specifically for these products. Information given is based on gathered information of the product and its data, knowledge of the components and the ecological of similar products.</i>
Toxicity	<u><i>Ecotoxicity Values</i></u> <i>Toxicity threshold Algae (Microcystis aeruginosa) = 2900 mg/l Toxicity threshold Protozoa = 3200 mg/l LC₅₀ Goldfish = > 5000 mg/l/ 24 hr</i>
Persistence and degradability	<i>Readily biodegradable</i>
Bio accumulative potential	<i>Low bioaccumulation potential, accumulation in organisms is not expected</i>
Mobility in soil	<i>Low potential for absorption to soil. Glycerine will partition primarily to water.</i>
Others adverse effects	<i>Avoid release to the environment</i>

SECTION 13: DISPOSAL INFORMATION

*Disposal of waste to be in accordance with the Environmental Quality Regulation 1989 and other guidelines issued by DOE (Department of Environment) and/ or any local authorities.
 Do not dispose via sinks, drains or the immediate environment.*

SECTION 14: TRANSPORT INFORMATION

UN Number	<i>None</i>
UN Proper Shipping Name	<i>None</i>
Transport Hazard Class	<i>Not classified as hazardous for ADR/ RID, AND, IMDG, IATA mode of transport purposes.</i>

SECTION 15: REGULATORY INFORMATION

Classification and labelling according to GHS:None

Classification and labelling according to EC: None

Not classified as hazardous material thus the R - Risk Phrase and the S – Safety Phrase is not applicable.

SECTION 16: OTHER INFORMATION

Key/ Abbreviations	<i>ADR/RID= Land transport international Carriage by rail and by road AND= Inland waterway transport IMDG=International Maritime Dangerous Good Code IATA=International Air Transport Association</i>
Reference	<ul style="list-style-type: none"> • <i>Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000</i> • <i>Occupational Safety and Health (Classification, Packaging and Labelling of Hazardous Chemicals) Regulations 1997</i> • <i>Guidelines for the Formulation of A Chemical Safety Data Sheet 1997</i> • <i>Environmental Quality (Schedule Wastes) Regulations 1989</i>
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