

## Section 1. Identification

### PRODUCT IDENTIFIER

Substance Name: Refined Glycerine  
Synonym: Glycerine;, 1,2,3-Propanetriol; Glycerol; Glycerin; Glyceryn

### RECOMMENDED USE OF THE CHEMICAL

#### Uses

Used as emulsifier, emollient, plasticizer, humectant, sweetener, anti-freeze, in food products, drug excipient, cosmetics, surface coatings and paints. Used as intermediate for making glycerol derivatives.

### SUPPLIER'S DETAILS

Legal Entity: Ingredient Supplier  
Address: 13320 Emmett Rd.  
Houston, TX 77041  
USA  
Telephone Number: (832) 795-6898  
Email Address of Person: info@ingredientsupplier.com  
Responsible for SDS:  
Official Website: ingredientsupplier.com

### EMERGENCY PHONE NUMBER

Emergency Contact Number: Toll-Free Number: 1-800-424-9300

## Section 2. Hazard Identification

### GHS CLASSIFICATION

#### CLASSIFICATION ACCORDING TO REGULATION (EC) NO. 1272/2008

Physical Hazards: Not classified  
Health Hazards: Not classified  
Environmental Hazards: Not classified

### GHS LABEL ELEMENTS

Signal Words: None  
Symbols: None  
Hazard Statement: None

### OTHER HAZARDS WHICH DO NOT RESULT IN CLASSIFICATION

None

THIS SDS COMPLIES WITH 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD)

### Section 3. Composition / Information on Ingredients

#### SUBSTANCES

|                  |                           |                                              |
|------------------|---------------------------|----------------------------------------------|
| Main Constituent | Molecular Formula         | C <sub>3</sub> H <sub>8</sub> O <sub>3</sub> |
|                  | Concentration             | 99% to 100%                                  |
|                  | EC Name                   | Glycerol                                     |
|                  | EC Number                 | 200-289-5                                    |
|                  | CAS Number (EC Inventory) | 56-81-5                                      |
|                  | IUPAC Name                | Glycerol                                     |

#### MIXTURES

Not relevant as substance is not a mixture.

### Section 4. First Aid Measures

#### DESCRIPTION OF NECESSARY FIRST-AID MEASURES

**First Aid Instructions:** EYE – Wash out with plenty of water. Remove contact lenses, if present and easy to do. Get medical attention if any sensations persist.

SKIN – Remove contaminated clothing. Wash skin thoroughly with plenty of water. Get medical attention if necessary.

INHALATION – Use self-contained breathing equipment if in confined place. Remove to fresh air. Get medical attention if necessary.

INGESTION – Remove material from mouth. Drink plenty of water. No typical symptoms and effects known. However, if large amount swallowed or symptoms develop, get medical attention. Do not induce vomiting.

#### MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED

|             |                                                                                                     |
|-------------|-----------------------------------------------------------------------------------------------------|
| Eye:        | Direct contact with eyes is likely irritating.                                                      |
| Skin:       | Not expected under normal conditions of use.                                                        |
| Inhalation: | Not expected to present a significant inhalation hazard under anticipated conditions of normal use. |
| Ingestion:  | If a large quantity has been ingested, may cause nausea, vomiting, and diarrhea.                    |

#### INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY

If medical advice is needed, have product container or label at hand.

## Section 5. Fire Fighting Measures

### SUITABLE EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use extinguishing media appropriate for surrounding fire. Water fog, water spray, foam, dry powder, carbon dioxide (CO<sub>2</sub>) and alcohol resistant foam.

Unsuitable Extinguishing Media: None known. However, avoid using water jet as that may cause the fire to spread.

### SPECIAL HAZARDS ARISING FROM THE CHEMICAL

Fire Hazard – Not flammable.

Explosion Hazard – Not explosive.

Reactivity – Stable at ambient temperature and under normal conditions of use.

### SPECIAL PROTECTIVE ACTIONS FOR FIREFIGHTERS

Specific hazards – Combustion causes toxic fumes

Protection during firefighting – Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus and face mask. Cool containers exposed to flames with water until well after the fire is out.

## Section 6. Accidental Release and Clean-Up Procedures

### PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions, Protective Equipment and Emergency Procedures Use appropriate personal protection equipment (PPE).  
Evacuate unnecessary personnel.  
Equip clean-up crew with proper protection.

### ENVIRONMENTAL PRECAUTIONS

Prevent runoff from entering drains, sewers, or streams. Avoid discharge onto the ground.

### METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Method For Spill Containment Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

Method for Spill Clean-Up Large Spills – Dike far ahead of spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.  
Small Spills – Wipe up with absorbent material (e.g. cloth, fleece).  
Clean surface thoroughly to remove residual contamination.  
Following product recovery, flush area with water.  
Never return spills in original containers for re-use.

### REFERENCE TO OTHER SECTIONS

Please refer to section 8 on information for exposure controls / personal protection, and section 13 for disposal considerations.

**Section 7. Handling and Storage**

**PRECAUTIONS FOR SAFE HANDLING**

Recommendations for Safe Handling: Handle in accordance with good industrial hygiene and safety procedures.

**CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES**

Safe Storage Conditions: Store in a cool, dry place in the original container.  
 Incompatible Products: Strong acids, strong bases and strong oxidizers.  
 Packaging Materials: Store in packaging that are food grade.

**Section 8. Exposure Controls / Personal Protection**

**CONTROL PARAMETERS**

**Glycerol (56-81-5)**

| Parameters                              | Value                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Form |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| <b>USA – OSHA PEL (TWA)</b>             | 5 mg/m <sup>3</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mist |
| <b>Appropriate Engineering Controls</b> | Adequate ventilation should be provided so that exposure limits are not exceeded.                                                                                                                                                                                                                                                                                                                                                                                            |      |
| <b>Personal Protective Equipment</b>    | <p><b>Eye</b> – Safety glasses or chemical goggles.</p> <p><b>Skin</b> – Wear suitable protective clothing. Wear chemical resistant protective gloves.</p> <p><b>Inhalation</b> – No personal respiratory protective equipment normally required. In case of risk of inhalation of vapours, use suitable respiratory equipment with combination filter (type A2/P2).</p> <p><b>General</b> – Practice good industrial hygiene and safety. Keep away from food and drink.</p> |      |

**Section 9. Physical and Chemical Properties**

**INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

|                  |                                                                          |
|------------------|--------------------------------------------------------------------------|
| Appearance:      | Clear viscous liquid                                                     |
| Odour:           | Not available                                                            |
| Odour Threshold: | Not available                                                            |
| pH:              | Not available                                                            |
| Melting Point:   | 18°C solidifies at a much lower temperature due to supercooling property |
| Freezing Point:  | Not available                                                            |
| Boiling Point:   | 290°C                                                                    |
| Flash Point:     | 198.9°C (PMCC)                                                           |

|                                               |                   |
|-----------------------------------------------|-------------------|
| Evaporation Rate:                             | Not available     |
| Flammability (solid, gas):                    |                   |
| Upper/Lower Flammability or Explosive Limits: | Not available     |
| Vapour Pressure:                              | <0.01 mmHg @ 50°C |
| Vapour Density:                               | Not available     |
| Specific Gravity (H2O=1):                     | Approx. 1.26      |
| Solubility(ies):                              | Soluble           |
| Partition Coefficient: N-Octanol/Water:       | -1.8              |
| Auto-Ignition Temperature:                    | Approx 400°C      |
| Decomposition Temperature:                    | Not available     |
| Viscosity:                                    | 1410mPa.s at 20°C |
| Explosive Properties:                         | Not determined    |

**OTHER INFORMATION**

|                                                        |      |
|--------------------------------------------------------|------|
| Other Information on Physical and Chemical Parameters: | None |
|--------------------------------------------------------|------|

**Section 10. Stability and Reactivity Data**

|                                            |                                                                                                                                                                                    |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reactivity:</b>                         | Stable at ambient temperature and under normal conditions of use.                                                                                                                  |
| <b>Chemical Stability:</b>                 | Product is stable.                                                                                                                                                                 |
| <b>Possibility of Hazardous Reactions:</b> | Hazardous polymerization does not occur.                                                                                                                                           |
| <b>Conditions to Avoid:</b>                | Avoid temperatures exceeding 200°C as decomposition may occur.                                                                                                                     |
| <b>Incompatible Materials:</b>             | Contact of glycerine with strong oxidizing agents such as nitric acid or other strong acids, chromium trioxide, potassium chlorate, or potassium permanganate may cause explosion. |
| <b>Hazardous Decomposition Products:</b>   | Dangerous Decomposition Product - Acrolein (>280°C)                                                                                                                                |

**Section 11. Toxicological Information**

**INFORMATION ON TOXICOLOGICAL (HEALTH) EFFECTS**

| Hazard Class   | Result             | Criteria                |
|----------------|--------------------|-------------------------|
| Oral LD50      | >20000 mg/kg (rat) | OECD GHS                |
| Acute Toxicity | Inhalation L(Ct)50 | 4655 mg/min/litre (rat) |
|                | Dermal LD50        | 45 ml/kg (guinea pig)   |
|                |                    | OECD GHS                |

**INFORMATION ON LIKELY ROUTES OF EXPOSURE**

Ingestion: Not classified  
 Inhalation: Not classified  
 Skin Contact: Not classified  
 Eye Contact: Not classified

**SENSITIZATION**

Respiratory Sensitization: Not classified  
 Skin Sensitization: Not classified

**ASPIRATION TOXICITY**

Aspiration Hazard: No data available Nil

**MUTAGENICITY**

|                                |                               |                                                       |                                            |
|--------------------------------|-------------------------------|-------------------------------------------------------|--------------------------------------------|
| <b>Germ Cell Mutagenicity:</b> | <b>Mutagenicity</b>           | Not Classified                                        |                                            |
|                                | <b>Ames Test:</b>             | Result: Negative                                      | in vitro, OECD 471                         |
|                                |                               | Species: Salmonella Typhimirium (Salmonella enterica) |                                            |
|                                | <b>Chromosome Aberration:</b> | Result: No effects                                    | in vitro - Chinese Hamster Ovary, OECD 473 |

**CARCINOGENICITY**

Carcinogenicity: Not classified. Not considered a carcinogen by IARC, ACGIH, NTP and OSHA.  
 Result: No effects Oral: feed  
 Species: Rat  
 Test Duration: 2 years

**REPRODUCTIVE & DEVELOPMENT TOXICITY**

Reproductive Effects: Not Classified  
 Fertility Effects: Result: No effects 2000 mg/kg bw/day; Oral: feed, 2 generation study  
 Species: Rat

**TERATOGENICITY**

Teratogenicity: Not Classified  
 Developmental Effects: Result: No effects 1310 mg/kg bw/day Oral: feed, NOAEL. Study followed intent of OECD 414  
 Species: Rat

**SERIOUS EYE DAMAGE/EYE IRRITATION**

Serious Eye Damage/Eye Irritation: Not Classified  
 Irritation Corrosion - Eye: Result: No effects Species: Rabbit 0.1 ml in vivo  
 Test Duration: 7 days

**SPECIFIC TARGET ORGAN TOXICITY**

|                                |                                           |                                          |
|--------------------------------|-------------------------------------------|------------------------------------------|
| <b>STOT - Single Exposure:</b> | Not Classified (Single/Repeated Exposure) |                                          |
|                                | Result: No effects.                       | 167 mg/m <sup>3</sup> Inhalation, NOAEL. |
|                                | Species: Rat                              | Study followed intent of OECD            |
|                                | Test Duration: 13 weeks                   | 413                                      |
|                                | Result: No effects.                       | 5040 mg/kg bw/day Dermal, NOEL           |
|                                | Species: Rabbit                           |                                          |
|                                | Test Duration: 45 weeks                   |                                          |
|                                | Result: No effects.                       | 8000 - 10000 mg/kg bw/day                |
|                                | Species: Rat                              | Oral, NOAEL. Study followed              |
|                                | Test Duration: 2 years                    | intent of OECD 452                       |

**OTHER INFORMATION ON ADVERSE HEALTH EFFECTS**

See section 2 for effects of the substance

**Section 12. Ecological Information**

**TOXICITY**

|                                               |                                                    |                                         |
|-----------------------------------------------|----------------------------------------------------|-----------------------------------------|
| Aquatic And Terrestrial Organisms Ecotoxicity | Fish ( <i>Oncorhynchus mykiss</i> )                | LC <sub>50</sub> > 54000 mg/L, 96 hours |
|                                               | Crustacea ( <i>Daphnia magna</i> )                 | EC <sub>50</sub> > 10000 mg/L, 24 hours |
|                                               | Algae ( <i>Scenedesmus quadricauda</i> )           | EC <sub>3</sub> > 10000 mg/L, 8 days    |
|                                               | Cyanobacteria ( <i>Microcystis aeruginosa</i> )    | EC <sub>3</sub> > 2900 mg/L, 8 days     |
|                                               | Other aquatic/terrestrial toxicological end points | No information                          |

**PERSISTENCE AND DEGRADABILITY**

**Conclusion**

Readily biodegradable (OECD 301)

**Supporting Information**

Percent degradation (Aerobic biodegradation-ready)

Result: Readily biodegradable  
 Species: Activated sludge, industrial  
 Test Duration: 24 hours

**BIOACCUMULATIVE POTENTIAL**

Low bioaccumulation potential, accumulation in organisms is not expected

Octanol/water partition coefficient log Kow = -1.75.

**MOBILITY IN SOIL**

Low potential for sorption to soil. Glycerine will partition primarily to water.

Henry's law

Calculation result: 0.000000006 atm m<sup>3</sup>/mol@25°C

**RESULTS OF PBT AND VPVB ASSESSMENT**

The substance is not PBT / vPvB

**Persistence:** The substance is demonstrated to be readily biodegradable, thus meeting screening criterion for "not P and not vP"

**Bioaccumulation:** The substance has measured log Kow of -1.75, which is well below the screening criterion of log Kow  $\leq$  4.5 for "not B and not vB"

**Toxicity:** The available acute aquatic E/LC50 values are well above the screening criterion of E/LC50  $<$  0.1 mg/L for "T". The substance is not classified for CMR or other organ-specific chronic health effects.

**OTHER ADVERSE EFFECTS**

Avoid release to the environment

**Section 13. Disposal Consideration**

**DISPOSAL METHODS**

Disposal is to be performed in compliance with all federal, state/provincial and local regulations. Do not dispose of via sinks, drains or into immediate environment.

**Section 14. Transportation Information**

Land transport - International Carriage by Rail (RID) and by Road (ARD): Not regulated as dangerous goods.

Inland waterway transport (AND(R)): Not regulated as dangerous goods.

Marine transport - International Maritime Dangerous Goods Code (IMDG): Not regulated as dangerous goods.

Air transport - International Civil Aviation Organization (ICAO) International Air Transport Association (IATA): Not regulated as dangerous goods.

United States Department of Transportation (US DOT): Not regulated as dangerous goods.

International Maritime Organization (IMO): International Bulk Chemical (IBC) Code Name: Glycerine

**Section 15. Regulatory Information**

**SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS SPECIFIC FOR THE PRODUCT IN QUESTION**

**OSHA (Occupational Safety and Health Administration) status:** This product is not hazardous under the criteria of the Federal OSHA Hazard Standard 29 CFR 1910.1200.

**CERCLA (Comprehensive Response compensation, and Liability Act):** No chemicals in this material with known CAS numbers are subject to the reporting requirements of CERCLA.



**SARA Title III (Superfund Amendments and Reauthorization Act):** Section 302 Extremely Hazardous Substances: No.  
 Section 311/312 Hazardous Chemical: No.

**California Proposition 65:** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**INVENTORY STATUS**

| Country(s) or Region        | Inventory Name                                                         | On Inventory (yes/no)* |
|-----------------------------|------------------------------------------------------------------------|------------------------|
| Australia                   | Australian Inventory of Industrial Chemicals (AIIC)                    | Yes                    |
| Canada                      | Domestic Substances List (DSL)                                         | Yes                    |
| Canada                      | Non-Domestic Substances List (NDSL)                                    | No                     |
| China                       | Inventory of Existing Chemical Substances in China (IECSC)             | Yes                    |
| Europe                      | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes                    |
| Europe                      | European List of Notified Chemical Substances (ELINCS)                 | No                     |
| Japan                       | Inventory of Existing and New Chemical Substances (ENCS)               | Yes                    |
| South Korea                 | Existing Chemicals List (ECL)                                          | Yes                    |
| New Zealand                 | New Zealand Inventory                                                  | Yes                    |
| Philippines                 | Philippine Inventory of Chemicals and Chemical Substances (PICCS)      | Yes                    |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory                          | Yes                    |
| Switzerland                 | Switzerland FOPH                                                       | No                     |

**Section 16. Other Information**

**Further Information:** HMIS® is a registered trade and service mark of the NPCA.

Substance meets the criteria of Paragraph 9 of Annex V of the REACH EC Regulation No. 987/2008 and is therefore exempted from the obligation to register under REACH.

**HMIS® Ratings:** Health: 1  
 Flammability: 1  
 Physical hazard: 0

**NFPA Ratings:** Health: 1  
Flammability: 1  
Reactivity: 0

**Key Abbreviations:** SDS: Safety Data Sheet  
PBT: Substance with Persistent, Bioaccumulative and Toxic properties vPvB:  
Substance with very Persistent and very Bioaccumulative properties

**Mixture Classification Information**

Not relevant

**List of Relevant R Phrases, Hazard Statements, Safety Phrases and/or Precautionary Statements**

Not relevant

**Date of Issue:** 12/08/2022  
**Reason of Issue:** Revision  
**Prepared by:** Ingredient Supplier  
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**For INGREDIENT SUPPLIER**

  
\_\_\_\_\_  
**(AUTHORIZED SIGNATORY)**