



Rierden Chemical & Trading Company

SAFETY DATA SHEET

1. Identification

Product identifier	Glycerine
Other means of identification	
CAS number	56-81-5
Synonyms	1,2,3-trihydroxypropane * 1,2,3-propanetriol * glycerin(e) * glyceryl alcohol * glycerol
Recommended use	Food ingredient.
Recommended restrictions	Uses other than the recommended use.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	Rierden Chemical & Trading Company
Address	115 West Church Street Libertyville, IL 60048 United States
Telephone	847-816-9310
Website	www.rierdenchemical.com
Email	rctorders@rierdenchemical.com
Emergency phone number	CHEMTREC +1-800-424-9300

2. Hazard(s) identification

Hazards for the product as sold	
Physical hazards	Not classified.
Hazards for the product as sold	
Health hazards	Not classified.
Hazards for the product as sold	
OSHA defined hazards	Not classified.
Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statement	The substance does not meet the criteria for classification.
Precautionary statement	
Prevention	Not assigned.
Response	Not assigned.
Storage	Not assigned.
Disposal	Not assigned.
Hazard(s) not otherwise classified (HNOC)	No additional hazards are known to be associated with the expected conditions of use at the time of publication. This document does not address hazards that may arise from uses not reasonably anticipated by the manufacturer.
Supplemental information	None.

3. Composition/information on ingredients

Substances			
Chemical name	Common name and synonyms	CAS number	%
Glycerine	1,2,3-trihydroxypropane 1,2,3-propanetriol glycerin(e) glyceryl alcohol glycerol	56-81-5	> 99

Composition comments

All concentrations are in percent by weight.

4. First-aid measures

Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact

Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact

Rinse with water. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

Most important

symptoms/effects, acute and delayed

Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed

Treat symptomatically.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Alcohol resistant foam. Dry chemical powder.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

During fire, hazardous combustion products are released that may include: Carbon oxides. Smoke. Acrolein. Hydrocarbon fragments.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

Will burn if involved in a fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. In case of spills, beware of slippery floors and surfaces. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Absorb spillage with suitable absorbent material. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Avoid direct contact with eyes and prolonged skin exposure. In case of spills, beware of slippery floors and surfaces. Avoid prolonged exposure. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. The substance is hygroscopic and will absorb water by contact with the moisture in the air. Avoid contact with water and moisture. Protect from humidity. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

Material	Type	Value	Form
Glycerine (CAS 56-81-5)	PEL	5 mg/m3	Respirable fraction.

US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

Material	Type	Value	Form
		15 mg/m ³	Total dust.

US. OSHA Table Z-3 Permissible Exposure Limits (PEL) for Mineral Dusts (29 CFR 1910.1000)

Material	Type	Value	Form
Glycerine (CAS 56-81-5)	TWA	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves. Neoprene or butyl rubber gloves are recommended.
Skin protection	
Other	Normal work clothing (long sleeved shirts and long pants) is recommended.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Physical state	Liquid.
Form	Viscous, hygroscopic liquid with a sweet taste.
Color	Clear, colorless.
Odor	Odorless.
Odor threshold	Not applicable (material is odorless).
Melting point/freezing point	64.4 °F (18 °C) Glycerine supercools readily; may not freeze until below 32 °F (0 °C).
Boiling point or initial boiling point and boiling range	Decomposes at 554 °F (290 °C) without boiling.
Flammability	Will burn if involved in a fire.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not known.
Explosive limit - upper (%)	Not known.
Flash point	390 °F (198.89 °C) Closed Cup
Auto-ignition temperature	698 °F (370 °C) ; (804 °F (429 °C) - Autoignition of decomposition products)
Decomposition temperature	554 °F (290 °C) May polymerize above 300 °F (150 °C).
pH	Not applicable. Does not yield hydrogen ions in solution.
Kinematic viscosity	Not available.

Solubility	
Solubility (water)	(100%) Completely soluble in water.
Solubility (other)	Soluble in alcohols, glycols; insoluble in hydrocarbons, chlorinated hydrocarbons, and ethers.
Partition coefficient (n-octanol/water)	-2.6
Vapor pressure	0.0023 mmHg (0.00031 kPa) (68 °F (20 °C))
Density and/or relative density	
Relative density	1.264 (Water=1) (68 °F (20 °C))
Vapor density	3.2 (Air=1)
Particle characteristics	Not applicable, material is a liquid.
Other information	Conversion factor 1ppm = 3.76 mg/m³
Evaporation rate	(n-Butyl acetate=1) Not considered volatile.
Explosive properties	Not explosive.
Molecular formula	C3-H8-O3
Molecular weight	92 g/mol
Oxidizing properties	Not oxidizing.
Viscosity	1490 cP (68 °F (20 °C))

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	May react explosively with strong oxidizing agents. Polymerization may occur at temperatures above 300 °F (150 °C).
Conditions to avoid	High temperatures. Water, moisture. Humidity. Contact with incompatible materials.
Incompatible materials	Acetic anhydride. Strong oxidizing agents, such as: Chromium trioxide. Potassium chlorate Potassium permanganate.
Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Acrolein. Hydrocarbon fragments.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Mist: May cause slight respiratory tract irritation.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	May cause discomfort if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.
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Information on toxicological effects

Acute toxicity	Not expected to be acutely toxic.
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Product	Species	Test Results
Glycerine (CAS 56-81-5)		
Acute		
Dermal		
LD50	Rabbit	> 18700 mg/kg
Oral		
LD50	Rat	27200 mg/kg

Skin corrosion/irritation	Not irritating to skin.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

NTP Report on Carcinogens

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species	Test Results
Glycerine (CAS 56-81-5)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50 Daphnia magna	> 10000 mg/l, 24 Hours

Persistence and degradability The product is readily biodegradable.

Bioaccumulative potential Not bioaccumulative.

Partition coefficient n-octanol / water (log Kow)

-2.6

Mobility in soil Rapid biodegradation limits movement.

Other adverse effects No data available for this product.

13. Disposal considerations

Disposal instructions Do not dispose of waste into sewer. Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to IMO instruments Not established.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Toxic Substances Control Act (TSCA) This substance is on the TSCA 8(b) inventory and is designated "active".

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

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Other Flavoring Substances with OSHA PEL's

US state regulations

US. Massachusetts RTK - Substance List

Glycerine (CAS 56-81-5)

US. New Jersey Worker and Community Right-to-Know Act

Glycerine (CAS 56-81-5)

US. Pennsylvania Worker and Community Right-to-Know Law

Glycerine (CAS 56-81-5)

US. Rhode Island RTK

Glycerine (CAS 56-81-5)

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

Country(s) or region	Inventory name	On inventory (yes/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
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	24-March-2025
Revision date	26-June-2025
Version #	02
Further information	B - Safety Glasses, Gloves
HMIS® ratings	Health: 0 Flammability: 1 Physical hazard: 0 Personal protection: B
Disclaimer	Rierden Chemical & Trading Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.