



Effective Date: 05/01/13
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NON-EMERGENCY TELEPHONE
610-866-4225

24-HOUR CHEMTREC EMERGENCY TELEPHONE
800-424-9300

SDS – SAFETY DATA SHEET

1. Identification

Product Identifier: GLYCEROL

Synonyms: 1,2,3 – Propanetriol, Glycerin, Glycol alcohol, Glycerol Anhydrous

Chemical Formula: C₃H₅(OH)₃

Recommended Use of the Chemical and Restrictions On Use: Laboratory Reagent

Manufacturer / Supplier: Puritan Products; 2290 Avenue A, Bethlehem, PA 18017 **Phone:** 610-866-4225

Emergency Phone Number: 24-Hour Chemtrec Emergency Telephone 800-424-9300

2. Hazard(s) Identification

Classification of the Substance or Mixture:

Skin irritation (Category 3)

Eye irritation (Category 2B)

Risk Phrases:

R36/R38: Irritating to eyes and skin.

Label Elements:

Trade Name: GLYCEROL

Signal Word: Warning

Pictogram: None

Hazard Statements:

H316: Causes mild skin irritation.

H320: Causes eye irritation.

Precautionary Statements:

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

3. Composition / Information on Ingredients

CAS Number: 56-81-5

EC Number: 200-289-5

Molecular Weight: 92.10 g/mol

Ingredient	CAS Number	EC Number	Percent	Hazardous	Chemical Characterization
Glycerin	56-81-5	200-289-5	90 - 100%	No	Substance

4. First-aid Measures

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention. Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact: DO NOT INDUCE VOMITING unless directed by a physician! Never give anything by mouth to an unconscious person. Get medical attention.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

5. Fire-fighting Measures

Fire: Slight fire hazard when exposed to heat or flame. Flash point: 199C (390F) CC / Autoignition temperature: 370C (698F)

Explosion: Above flash point, vapor-air mixtures may cause flash fire.

Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire. Water spray may be used to extinguish surrounding fire and cool exposed containers. Water spray will also reduce fume and irritant gases.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Environmental Precautions and Methods and Materials for Containment and Cleaning Up: Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e.g., vermiculite, dry sand, earth,) and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer!

7. Handling and Storage

Precautions for Safe Handling and Conditions for Safe Storage, Including Any Incompatibilities: Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid.) Observe all warnings and precautions listed for the product.

8. Exposure Controls / Personal Protection

Airborne Exposure Limits:

For Glycerin Mist:

OSHA Permissible Exposure Limit (PEL): Total Dust: 15 mg/m³ (TWA); Respirable Fraction: 5 mg/m³(TWA).

ACGIH Threshold Limit Value (TLV): 10 mg/m³

Ventilation System: A system of local and / or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved): If the exposure limit is exceeded and engineering controls are not feasible, a half face piece particulate respirator (NIOSH type P95 or R95 filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full face piece particulate respirator (NIOSH type P100 or R100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. Please note that N filters are not recommended for this material. For emergencies or instances where the exposure levels are not known, use a full face piece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in Oxygen-deficient atmospheres.

Skin Protection: Wear protective gloves and clean body-covering clothing.

Eye Protection: Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance: Clear oily liquid

Odor: Odorless

Odor Threshold: Not applicable

pH: (neutral to litmus)

% Volatiles by volume @ 21C (70F): 0

Melting Point: 18C (64F)

Boiling Point / Boiling Range: 290C (554F)

Flash Point: 199C (390F) CC

Evaporation Rate (BuAc=1): No data available

Flammability: Slight fire hazard when exposed to heat or flame

Upper / Lower Flammability or Explosive Limits: No data available

Vapor Pressure (mm Hg): 0.0025 @ 50C (122F)

Vapor Density (Air=1): 3.17

Relative Density: 1.25 g/mL

Solubility: Soluble

Partition Coefficient: n-octanol / water: No data available

Auto-ignition Temperature: 370C (698F)

Decomposition Temperature: 290C (554F)

Viscosity: No data available

10. Stability and Reactivity

Reactivity and / or Chemical Stability: Stable under ordinary use and storage conditions.

Possibility of Hazardous Reactions and Conditions to Avoid: Heat, flames, ignition sources and incompatibles.

Incompatible Materials: Strong oxidizers. Can react violently with Acetic Anhydride, Calcium Oxychloride, Chromium oxides and alkali metal hydrides.

Hazardous Decomposition Products: Toxic gases and vapors may be released if involved in a fire. Glycerin decomposes upon heating above 290C, forming corrosive gas (acrolein.)

11. Toxicological Information

Emergency Overview: CAUTION! MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT. MAY AFFECT KIDNEYS.

Potential Health Effects:

Inhalation: Due to the low vapor pressure, inhalation of the vapors at room temperatures is unlikely. Inhalation of mist may cause irritation of respiratory tract.

Ingestion: Low toxicity. May cause nausea, headache, diarrhea.

Skin Contact: May cause irritation.

Eye Contact: May cause irritation.

Chronic Exposure: May cause kidney injury.

Aggravation of Pre-existing Conditions: Persons with pre-existing skin disorders or eye problems or impaired liver or kidney function may be more susceptible to the effects of the substance.

Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System:) No data available.

Specific Target Organ Toxicity - Repeated Exposure (Globally Harmonized System:) No data available.

Numerical Measures of Toxicity: Cancer Lists: NTP Carcinogen

Ingredient	Known	Anticipated	IARC Category
Glycerin (56-81-5)	No	No	None

Acute Toxicity: Oral rat LD50: 12,600 mg/kg. Investigated as a mutagen, reproductive effector.

12. Ecological Information

Ecotoxicity: This material is not expected to be toxic to aquatic life.

Persistence and Degradability: When released into the soil, this material is expected to readily biodegrade. When released into water, this material is expected to readily biodegrade.

Bioaccumulative Potential: This material is not expected to significantly bioaccumulate.

Mobility in Soil: When released into the soil, this material is not expected to evaporate significantly.

Other adverse effects: When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be flushed to sewer. If material becomes contaminated during use, dispose of accordingly. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic)

Not regulated

Maritime Transport IMDG/GGVSea
Not regulated

Air Transport ICAO-TI and IATA-DGR
Not regulated

15. Regulatory Information

Chemical Inventory Status – Part 1

Ingredient	TSCA	EC	Japan	Australia
Glycerin (56-81-5)	Yes	Yes	Yes	Yes

Chemical Inventory Status – Part 2

Ingredient	Korea	Canada		Phil.
		DSL	NDSL	
Glycerin (56-81-5)	Yes	Yes	No	Yes

Federal, State & International Regulations - Part 1

Ingredient	SARA 302		SARA 313	
	RQ	TPQ	List Chemical	Catg.
Glycerin (56-81-5)	No	No	No	No

Federal, State & International Regulations - Part 2

Ingredient	RCRA		TSCA
	CERCLA	261.33	8(d)
Glycerin (56-81-5)	No	No	No

Chemical Weapons Convention: No		TSCA 12(b): No		CDTA: No	
SARA 311/312:	Acute: Yes	Chronic: Yes	Fire: No	Pressure: No	
Reactivity: No		Pure / Liquid			

Australian Hazchem Code: Not classified

Poison Schedule: None allocated

16. Other Information

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