

Glycerol

SECTION 1. IDENTIFICATION

Product Identifier	Glycerol
Other Means of Identification	Glycerin, 1,2,3-Trihydroxypropane, Glycol Alcohol, 1,2,3-Propanetriol
Product Code(s)	GL2110, GL2120, GL2130
Product Family	Organic solution
Recommended Use	Laboratory and industrial use.
Restrictions on Use	None known.
Supplier Identifier	Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995
Emergency Phone No.	CANUTEC CANADA, 613-996-6666, 24 Hours
SDS No.	0166

SECTION 2. HAZARD IDENTIFICATION

Classified according to the US Hazard Communication Standard (HCS 2012).

Classification

Not classified under any hazard class.

Label Elements

Not applicable

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Glycerol	56-81-5	>99	Glycerin, Trihydroxypropane, Glycylalcohol

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. If skin irritation occurs, get medical advice or attention.

Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face.

Ingestion

Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the Poison Centre or doctor.

First-aid Comments

Some of the first-aid procedures recommended here require advanced first-aid training. If exposed or concerned, get medical advice or attention.

Most Important Symptoms and Effects, Acute and Delayed

None known.

Immediate Medical Attention and Special Treatment

Special Instructions

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder or appropriate foam.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Product

Closed containers may rupture violently when heated releasing contents. Can ignite if strongly heated.

Very toxic carbon monoxide, carbon dioxide.

Special Protective Equipment and Precautions for Fire-fighters

Evacuate area. Fight fire from a protected, explosion-resistant location or maximum distance possible. For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Emergency responders: use the personal protective equipment recommended in Section 8 of this safety data sheet. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Do not get in eyes, on skin or on clothing. Prevent accidental contact with incompatible chemicals. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area.

Conditions for Safe Storage

Store in an area that is: dry, ventilated, out of direct sunlight and away from heat and ignition sources, an approved, fire-resistant area, separate from incompatible materials (see Section 10: Stability and Reactivity).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Glycerol	Not established		10 mg/m3			

Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures**Eye/Face Protection**

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: butyl rubber, natural rubber, neoprene rubber, nitrile rubber, polyvinyl chloride, Viton®, Viton®/butyl rubber, Barrier® (PE/PA/PE), Silver Shield/4H® (PE/EVAL/PE).

Respiratory Protection

No specific guidelines are available. Contact chemical manufacturer/supplier for advice. Wear a dust mask approved by NIOSH for dusty conditions.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**Basic Physical and Chemical Properties**

Appearance	Clear colourless liquid.
Odour	Odourless
Odour Threshold	Not applicable
pH	~ 7.0; Neutral
Melting Point/Freezing Point	18 °C (64 °F) (melting); Not available (freezing)
Initial Boiling Point/Range	290 °C (554 °F)
Flash Point	199 °C (390 °F)
Evaporation Rate	Not available
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	0.0023 mm Hg
Vapour Density (air = 1)	3.17
Relative Density (water = 1)	1.2636 at 20 °C
Solubility	Soluble in all proportions in alcohols (e.g. ethanol).
Partition Coefficient, n-Octanol/Water (Log Kow)	-2.6
Auto-ignition Temperature	370 °C (698 °F)
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); 1490 mPa.s (dynamic)
Other Information	
Physical State	Liquid
Other Physical Property 1	Vapour Pressure (above) is listed at 50 deg C.

SECTION 10. STABILITY AND REACTIVITY**Reactivity**

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Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

Polymerizes in the presence of increased temperature.

Conditions to Avoid

High temperatures. Temperatures above 199 °C

Incompatible Materials

Strong oxidizing agents (e.g. perchloric acid), strong bases (e.g. sodium hydroxide).

Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Glycerol	> 143 mg/m3 (rat) (4-hour exposure)	27200 mg/kg (female rat)	23000 mg/kg (rabbit)

Skin Corrosion/Irritation

Animal tests show very mild irritation.

Serious Eye Damage/Irritation

Animal tests show very mild irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

No information was located.

Skin Absorption

No information was located.

Ingestion

No information was located.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

Respiratory and/or Skin Sensitization

Not known to be a skin sensitizer.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Glycerol	Not evaluated	Not designated	Not Listed	

Reproductive Toxicity

Development of Offspring

No information was located.

Sexual Function and Fertility

No information was located.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

Environmental Hazards Not applicable

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

Listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

SDS Prepared By Alphachem Limited

Phone No. (905)-821-2995

Date of Preparation October 15, 2015

Date of Last Revision November 11, 2015

Disclaimer This document is offered only as a guide in the safe handling of the above product, and has been prepared from the best information currently available. It is not intended to be all-inclusive and the conditions of use may involve other additional considerations. Since Alphachem Limited cannot anticipate or control the conditions under which the product may be used, it will not be liable for any claims, damages or losses which may result from the use or reliance on any information herein.

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