



SAFETY DATA SHEET GLYCERINE REVISION 6, DATE 20 AUG 21

1. IDENTIFICATION

Product Name	Glycerine
Other Names	Crude Glycerine; Glycerin; Glycerol; Semi Refined Crude Glycerine Q3
Uses	Food product; Feed ingredient; Cosmetic products; Technical applications; Industrial applications.
Chemical Family	No Data Available
Chemical Formula	C ₃ H ₈ O ₃
Chemical Name	1,2,3-Propanetriol
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust)

Not Scheduled



Globally Harmonised System

Hazard Classification	NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
Signal Word	None

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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Safe Work Australia

National Guide for Classifying Hazardous Chemicals under the Model WHS Regulations

Hazard Classification	NOT hazardous according to the criteria of Safe Work Australia under Model WHS Regulations
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3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
1,2,3-Propanetriol	C3H8O3	56-81-5	<=100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth, then drink a glass of water. Do not induce vomiting. Get medical advice/attention if you feel unwell. Never give anything by mouth to an unconscious person.
Eye	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention.
Skin	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs, get medical advice/attention.
Inhaled	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
Advice to Doctor	Treat symptomatically and supportively.
Medical Conditions Aggravated by Exposure	No information available.

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out. Combustible liquid; May burn but does not ignite readily.
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Flammability Conditions	
Extinguishing Media	Use dry chemical, Carbon dioxide (CO ₂), alcohol-resistant foam or water spray for extinction - Do not use water jets.
Fire and Explosion Hazard	Containers may explode when heated. *Oil soaked rags can cause spontaneous combustion if not handled properly. Before disposal, wash rags with soap and water and dry in a well-ventilated area.
Hazardous Products of Combustion	Fire may produce irritating and/or toxic gases, including Carbon oxides, hydrocarbons, soot, aldehydes and ketones.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may pollute waterways.
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA) and chemical splash suit. SCBA and structural firefighter's uniform may provide limited protection.
Flash Point	>=180 - 198.9 °C
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	400 °C
Hazchem Code	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation. ELIMINATE all ignition sources. Do not touch or walk through spilled material - Greasy nature will result in a slippery surface. Avoid accidents, clean up immediately! Avoid breathing vapours and contact with eyes, skin and clothing.
Clean Up Procedures	Recover large spills for salvage or disposal. Pick up spills/residues with sand or other non-combustible absorbent material and place into containers for later disposal (see SECTION 13). *Never return spills into original containers for re-use.
Containment	Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Dike far ahead of large spill for later disposal.
Decontamination	Clean surface thoroughly to remove residual contamination. Wash hard surfaces with detergent to remove remaining oil film.
Environmental Precautionary Measures	Prevent entry into drains and waterways.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away.
Personal Precautionary Measures	Use personal protective equipment as required (see SECTION 8).

7. HANDLING AND STORAGE

Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing mist/vapours/aerosols and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Avoid exposure to heat and sources of ignition - No smoking.
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed when not in use - check regularly for leaks. Protect against physical damage. Protect from moisture (hygroscopic). Keep away from heat and sources of ignition - No smoking. Keep away from incompatible materials (see SECTION 10).
Container	Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	For Glycerin mist (CAS No. 56-81-5): - Safe Work Australia Exposure Standard: TWA = 10 mg/m ³ . - New Zealand Workplace Exposure Standard: TWA = 10 mg/m ³ .
Exposure Limits	No Data Available
Biological Limits	No information available.
Engineering Measures	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. 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.
Personal Protection Equipment	- Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Organic vapour/particulate respirator (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses or goggles. - Hand protection: Handle with gloves. Recommended: Impervious gloves. - Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Overalls, safety shoes.
Special Hazards Precautions	Vapour heavier than air - prevent concentration in hollows or sumps. Do NOT enter confined spaces where vapour may have collected.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Clear, viscous liquid
Odour	Odourless
Colour	Colourless
pH	No Data Available
Vapour Pressure	<0.01 mmHg (@ 20 °C)
Relative Vapour Density	3.2 Air = 1
Boiling Point	290 - 295 °C
Melting Point	18 - 20 °C
Freezing Point	No Data Available
Solubility	Soluble in water
Specific Gravity	approx. 1.26 (H ₂ O = 1)
Flash Point	>=180 - 198.9 °C
Auto Ignition Temp	400 °C
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	1.261 g/cm ³
Specific Heat	No Data Available
Molecular Weight	92.1
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	107.5 mPa.s (55 °C) - 1,410 mPa.s (20 °C) (@ No Data Available)

Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No information available.
Potential for Dust Explosion	Not applicable.
Fast or Intensely Burning Characteristics	No information available.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	Oil soaked rags can cause spontaneous combustion if not handled properly. Before disposal, wash rags with soap and water and dry in a well-ventilated area.
Properties That May Initiate or Contribute to Fire Intensity	Combustible liquid; May burn but does not ignite readily.
Reactions That Release Gases or Vapours	Fire/decomposition may produce irritating and/or toxic gases, including Carbon oxides, hydrocarbons, soot, aldehydes and ketones.
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	Reacts vigorously and explosively with oxidisers, such as chromium trioxide, potassium chlorate, or potassium permanganate. Reacts violently with acid anhydrides, sodium peroxide, silver perchlorate, lead oxide, aniline, nitrobenzene, lead oxide, ethylene oxide and fluorine.
Chemical Stability	Stable under normal conditions of use.
Conditions to Avoid	Keep away from heat and sources of ignition. Avoid exposure to moisture (hygroscopic).
Materials to Avoid	Incompatible/reactive with acids, acid anhydrides, oxidising agents, nitrobenzene, aniline.
Hazardous Decomposition Products	Fire/decomposition may produce irritating and/or toxic gases, including Carbon oxides, hydrocarbons, soot, aldehydes and ketones.
Hazardous Polymerisation	Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	<p>Information on possible routes of exposure:</p> <ul style="list-style-type: none"> - Ingestion: No adverse effects expected; large amounts may cause gastrointestinal irritation, nausea and vomiting. - Eye contact: May cause eye irritation. - Skin contact: Repeated or prolonged contact may have a degreasing action on the skin and may lead to irritant contact dermatitis. - Inhalation: Mist/vapours may cause respiratory tract irritation (mucous membranes), headache, nausea. <p>Chronic effects: No information available.</p>
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Not expected to be harmful to aquatic organisms.
Persistence/Degradability	Material is organic by nature and would be expected to breakdown readily in the environment.
Mobility	No information available.
Environmental Fate	Don't allow spilled material to flow into drainage systems or wastewater treatment systems - High BOD; Large spills into

	waterways could promote eutrophication and fish kills.
Bioaccumulation Potential	No information available.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container in accordance with local/regional/national regulations.
Special Precautions for Land Fill	No information available.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	Glycerine
Class	C2 Combustible Liquids - Flash Point >93°C, Closed Cup, Not Excluded Flammable
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (Malaysia)

ADR Code

Proper Shipping Name	Glycerine
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (Mexico)

NOMs

Proper Shipping Name	Glycerine
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available

Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (New Zealand)

NZS5433

Proper Shipping Name	Glycerine
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (United States of America)

US DOT

Proper Shipping Name	Glycerine
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Sea Transport

IMDG Code

Proper Shipping Name	Glycerine
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
EMS	No Data Available
Marine Pollutant	No
Comments	NON-DANGEROUS GOODS: Not regulated for SEA transport.

Air Transport

IATA DGR

Proper Shipping Name	Glycerine
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available

Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for AIR transport.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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15. REGULATORY INFORMATION

General Information	No Data Available
Poisons Schedule (Aust)	Not Scheduled

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	Not Hazardous
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National/Regional Inventories

Australia (AIIIC)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Determined
China (IECSC)	Listed
Europe (EINECS)	200-289-5
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Listed
Korea (KECI)	KE-29297
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Listed
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Listed
USA (TSCA)	Listed

16. OTHER INFORMATION

Related Product Codes

GLYCER0300, GLYCER0400, GLYCER0500, GLYCER0700, GLYCER0800, GLYCER1000, GLYCER1001, GLYCER1002, GLYCER1003, GLYCER1004, GLYCER1005, GLYCER1006, GLYCER1007, GLYCER1008, GLYCER1009, GLYCER1010, GLYCER1011, GLYCER1012, GLYCER1013, GLYCER1014, GLYCER1015, GLYCER1016, GLYCER1017, GLYCER1018, GLYCER1019, GLYCER1020, GLYCER1021, GLYCER1022, GLYCER1023, GLYCER1024, GLYCER1025, GLYCER1026, GLYCER1027, GLYCER1028, GLYCER1029, GLYCER1030, GLYCER1031, GLYCER1032, GLYCER1033, GLYCER1034, GLYCER1035, GLYCER1036, GLYCER1037, GLYCER1038, GLYCER1039, GLYCER1040, GLYCER1041, GLYCER1042, GLYCER1043, GLYCER1044, GLYCER1045, GLYCER1048, GLYCER1049, GLYCER1050, GLYCER1051, GLYCER1055, GLYCER1057, GLYCER1100, GLYCER1110, GLYCER1120, GLYCER1200, GLYCER1300, GLYCER1400, GLYCER1500, GLYCER1501, GLYCER1502, GLYCER1503, GLYCER1504, GLYCER1505, GLYCER1506, GLYCER1507, GLYCER1508, GLYCER1509, GLYCER1510, GLYCER1550, GLYCER1600, GLYCER1601, GLYCER1650, GLYCER1700, GLYCER1701, GLYCER1702, GLYCER1703, GLYCER1750, GLYCER1751, GLYCER1760, GLYCER1761, GLYCER1762, GLYCER1763, GLYCER1764, GLYCER1765, GLYCER1766, GLYCER1767, GLYCER1771, GLYCER1800, GLYCER1801, GLYCER1802, GLYCER1803, GLYCER1804, GLYCER1805, GLYCER1806, GLYCER1807, GLYCER1808, GLYCER1809, GLYCER1810, GLYCER1811, GLYCER1812, GLYCER1813, GLYCER1814, GLYCER1815, GLYCER1816, GLYCER1817, GLYCER1818, GLYCER1819, GLYCER1820, GLYCER1821, GLYCER1822, GLYCER1823, GLYCER1824, GLYCER1900, GLYCER2000, GLYCER2001, GLYCER2002, GLYCER2003, GLYCER2004, GLYCER2005, GLYCER2006, GLYCER2007, GLYCER2008, GLYCER2009, GLYCER2100, GLYCER2200, GLYCER2300, GLYCER2301, GLYCER2302, GLYCER2310, GLYCER2311, GLYCER2500, GLYCER2501, GLYCER2502, GLYCER2600, GLYCER2601, GLYCER2700, GLYCER2800, GLYCER2900, GLYCER3000, GLYCER3001, GLYCER3002, GLYCER3010, GLYCER3110, GLYCER3120, GLYCER3155, GLYCER3200, GLYCER3210, GLYCER3300, GLYCER3400, GLYCER3500, GLYCER3800, GLYCER3900, GLYCER4000, GLYCER4001, GLYCER4002, GLYCER4100, GLYCER4400, GLYCER4500, GLYCER4800, GLYCER5000, GLYCER5100, GLYCER5101, GLYCER5102, GLYCER5103, GLYCER5105, GLYCER5110, GLYCER5111, GLYCER5120, GLYCER5150, GLYCER5152, GLYCER5153, GLYCER5154, GLYCER5197, GLYCER5200, GLYCER5201, GLYCER5202, GLYCER5203, GLYCER5204, GLYCER5205, GLYCER5206, GLYCER5207, GLYCER5210, GLYCER5211, GLYCER5212, GLYCER5213, GLYCER5214, GLYCER5220, GLYCER5225, GLYCER5226, GLYCER5250, GLYCER5280, GLYCER5281, GLYCER5283, GLYCER5290, GLYCER5291, GLYCER5293, GLYCER5295, GLYCER5296, GLYCER5297, GLYCER5298, GLYCER5300, GLYCER5301, GLYCER5305, GLYCER5306, GLYCER5400, GLYCER5401, GLYCER5402, GLYCER5403, GLYCER5404, GLYCER5405, GLYCER5406, GLYCER5450, GLYCER5500, GLYCER5501, GLYCER5502, GLYCER5503, GLYCER5512, GLYCER5600, GLYCER6000, GLYCER6001, GLYCER6002, GLYCER6100, GLYCER6500, GLYCER6600, GLYCER6700, GLYCER6800, GLYCER7000, GLYCER7003, GLYCER7100, GLYCER7103, GLYCER7180, GLYCER7185, GLYCER7200, GLYCER7300, GLYCER7400, GLYCER7500, GLYCER7501, GLYCER7600, GLYCER7700, GLYCER7701, GLYCER7710, GLYCER7720, GLYCER7721, GLYCER7730, GLYCER7740, GLYCER7741, GLYCER7750, GLYCER7751, GLYCER7760, GLYCER7770, GLYCER7800, GLYCER7840, GLYCER7850, GLYCER7855, GLYCER7900, GLYCER7901, GLYCER7905, GLYCER7906, GLYCER7907, GLYCER7940, GLYCER7950, GLYCER8000, GLYCER8100, GLYCER8200, GLYCER8300, GLYCER8400, GLYCER8500, GLYCER8600, GLYCER8700, GLYCER8800, GLYCER8900, GLYCER9000, GLYCER9010, GLYCER9100, GLYCER9200, GLYCER9201, GLYCER9400, GLYCER9500, GLYCER9501, GLYCER9503, GLYCER9600, GLYCER9605, GLYCER9700, GLYCER9750, GLYCER9751, GLYCER9800, GLYCER9900, GLYCER9910

Revision

6

Revision Date

20 Aug 2021

Reason for Issue

Updated SDS

Key/Legend

< Less Than

> Greater Than

AICS Australian Inventory of Chemical Substances**atm** Atmosphere**CAS** Chemical Abstracts Service (Registry Number)**cm²** Square Centimetres**CO₂** Carbon Dioxide**COD** Chemical Oxygen Demand**deg C (°C)** Degrees Celcius**EPA (New Zealand)** Environmental Protection Authority of New Zealand**deg F (°F)** Degrees Fahrenheit**g** Grams**g/cm³** Grams per Cubic Centimetre**g/l** Grams per Litre**HSNO** Hazardous Substance and New Organism**IDLH** Immediately Dangerous to Life and Health**immiscible** Liquids are insoluble in each other.**inHg** Inch of Mercury**inH₂O** Inch of Water

K Kelvin**kg** Kilogram**kg/m³** Kilograms per Cubic Metre**lb** Pound**LC50** LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.**LD50** LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.**ltr** or **L** Litre**m³** Cubic Metre**mbar** Millibar**mg** Milligram**mg/24H** Milligrams per 24 Hours**mg/kg** Milligrams per Kilogram**mg/m³** Milligrams per Cubic Metre**Misc** or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.**mm** Millimetre**mmH₂O** Millimetres of Water**mPa.s** Millipascals per Second**N/A** Not Applicable**NIOSH** National Institute for Occupational Safety and Health**NOHSC** National Occupational Health and Safety Commission**OECD** Organisation for Economic Co-operation and Development**Oz** Ounce**PEL** Permissible Exposure Limit**Pa** Pascal**ppb** Parts per Billion**ppm** Parts per Million**ppm/2h** Parts per Million per 2 Hours**ppm/6h** Parts per Million per 6 Hours**psi** Pounds per Square Inch**R** Rankine**RCP** Reciprocal Calculation Procedure**STEL** Short Term Exposure Limit**TLV** Threshold Limit Value**tne** Tonne**TWA** Time Weighted Average**ug/24H** Micrograms per 24 Hours**UN** United Nations**wt** Weight