

1. IDENTIFICATION

Product Name	Polypropylene Glycol (various grades)
Other Names	POLY[OXY(METHYL-1,2-ETHANEDIYL)],..ALPHA.-HYDRO.-OMEGA.-HYDROXY-; Polyether Polyol; Propane-1,2-diol, propoxylated; Propylene Glycol
Uses	Unspecified
Chemical Family	No Data Available
Chemical Formula	(C3H6O)nH2O
Chemical Name	Polypropylene Glycol (various grades)
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Pty 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)

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

HSNO Classifications	Health Hazards	6.1D	Substances that are acutely toxic - Harmful
		6.4A	Substances that are irritating to the eye
	Environmental Hazards	9.3C	Substances that are harmful to terrestrial vertebrates

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Polyether Polyol	No Data Available	25322-69-4	100.0 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	Rinse mouth out with water. Drink plenty of water. Consult a doctor/medical service.
Eye	Immediately flush eyes with plenty of water for 15 minutes, holding eyelids open. In all cases of eye contamination, it is a sensible precaution to seek medical advice.
Skin	Wash with plenty of soap and water. If irritation persists, consult a doctor.
Inhaled	Remove victim to fresh air. If you feel unwell, seek medical advice.
Advice to Doctor	Treat according to symptoms (decontamination, vital functions), no known specific antidote.
Medical Conditions Aggravated by Exposure	No information available on medical conditions aggravated by exposure to this product.

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, remove containers from the path of fire. Approach from upwind. Avoid static electricity discharges. Do not breathe gas/fumes/vapour/ spray
Flammability Conditions	Product is a non-flammable Liquid.
Extinguishing Media	In case of fire, use Foam. Dry powder. Water spray. Do not use a heavy water stream.
Fire and Explosion Hazard	No data available on indirect explosion hazard.
Hazardous Products of Combustion	Hazardous vapours may be released, Carbon oxides (CO, CO2).

Special Fire Fighting Instructions	Use water spray or fog for cooling exposed containers.
Personal Protective Equipment	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves). Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
Flash Point	No Data Available
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	No Data Available
Hazchem Code	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Personnel involved in the clean up should wear full protective clothing as listed in section 8. Avoid accidents, clean up immediately. Evacuate all unnecessary personnel. Increase ventilation. Avoid walking through spilled product as it is slippery when spilt. Stop leak if safe to do so. Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management. Use clean, non-sparking tools and equipment. Shut off all possible sources of ignition.
Clean Up Procedures	Soak up spilled product using absorbent non-combustible material such as sand or soil. Avoid using sawdust or cellulose. When saturated, collect the material and transfer to a suitable, labelled chemical waste container and dispose of promptly. Wash area down with detergent and excess hot water.
Environmental Precautionary Measures	Do not discharge the waste into the drain.
Personal Precautionary Measures	May be dangerously slippery if spilled.

7. HANDLING AND STORAGE

Handling	Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product fumes. Because of its physical properties this product needs to be heated before handling. Extra care should be taken to prevent burns from contact with the hot material.
Storage	Store in a cool, dry, well-ventilated area < 50 °C. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect from heat and direct sunlight. Store away from strong oxidizers, strong bases, strong acids. Segregate from foodstuffs. Protect against physical damage. Protect against frost. Store away from incompatible materials as listed in section 10. Storage temperature: ambient. The material is hygroscopic. Avoid ingress of moisture by keeping containers properly sealed when not in use. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.
Container	Store in original packaging as approved by manufacturer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No exposure standard has been established for this product by the Australian Safety and Compensation Council (ASCC).
Exposure Limits	No Data Available
Biological Limits	No information available on biological limit values for this product.
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 RESPIRATOR: Wear respiratory protection where dusts/vapours are generated and engineering controls are inadequate (AS1715/1716).
EYES: Safety glasses with side shields (AS1336/1337).
HANDS: Wear rubber or PVC gloves (AS2161).
CLOTHING: Long-sleeved protective clothing and safety footwear (AS3765/2210).

Work Hygienic Practices Wash hands and face before break and at end of works. Separate working clothes from town clothes. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice..

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Viscous Liquid
Odour	Slight
Colour	Colourless
pH	5 - 7
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	> 250 °C @ 1,013 hPa °C
Melting Point	No Data Available
Freezing Point	No Data Available
Solubility	Water: < 1 % Practically not miscible 25°C
Specific Gravity	No Data Available
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	1,031 g/cm ³
Specific Heat	No Data Available
Molecular Weight	No Data Available
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	1400 - 1800 mPa.s (@ 25 °C)
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	Material is Hygroscopic.
Potential for Dust Explosion	Based on the chemical structure there is no indicating of explosive properties.
Fast or Intensely Burning Characteristics	No Data Available
Flame Propagation or Burning Rate of Solid Materials	No Data Available
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No Data Available
Properties That May Initiate or Contribute to Fire Intensity	No Data Available

Reactions That Release Gases or Vapours No Data Available

Release of Invisible Flammable Vapours and Gases No Data Available

10. STABILITY AND REACTIVITY

Chemical Stability Product is stable under normal conditions of use, storage and temperature. Hygroscopic material.

Conditions to Avoid Avoid excessive heat, direct sunlight, moisture, static discharges and high temperatures. The material is hygroscopic. Avoid ingress of moisture by keeping containers properly sealed when not in use.

Materials to Avoid Isocyanates. Oxidizing agent.

Hazardous Decomposition Products Carbon oxides (CO and CO₂). Nitrogen oxides. When heated to decomposition, emits dangerous fume.

Hazardous Polymerisation Hazardous Polymerisation has not been reported.

11. TOXICOLOGICAL INFORMATION

General Information Virtually non toxic after a single ingestion. Virtually non toxic after a single skin contact.

EyeIrritant Unlikely to cause eye irritation.

Ingestion Virtually non toxic after a single ingestion.

Inhalation Unlikely to be hazardous by inhalation because of the low vapour pressure of the material at ambient temperature.

SkinIrritant Virtually non toxic after a single skin contact.

Carcinogen Category No Data Available

12. ECOLOGICAL INFORMATION

Ecotoxicity No ecological information available for this product.

Persistence/Degradability Moderately biodegradable.

Mobility Adsorption to solid soil phase is not expected. Volatility: No information available about this product.

Environmental Fate There is a high probability that the product is not acutely harmful to aquatic organisms. Not in groundwater, surface water or sewerage.

Bioaccumulation Potential This material has not been tested.

Environmental Impact No Data Available

13. DISPOSAL CONSIDERATIONS

General Information Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

Special Precautions for Land Fill Contact a specialist disposal company or the local waste regulator for advice. Bury on an authorised landfill site or incinerate under approved controlled conditions.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	POLYPROPYLENE GLYCOL
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

Land Transport (Malaysia)

ADR

Proper Shipping Name	POLYPROPYLENE GLYCOL
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

Land Transport (New Zealand)

NZS5433

Proper Shipping Name	POLYPROPYLENE GLYCOL
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

Land Transport (United States of America)

US DOT

Proper Shipping Name	POLYPROPYLENE GLYCOL
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

Sea Transport

IMDG Code

Proper Shipping Name	POLYPROPYLENE GLYCOL
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

Air Transport

IATA DGR

Proper Shipping Name	POLYPROPYLENE GLYCOL
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

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	HSR003037
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National/Regional Inventories

Australia (AICS)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Listed
Europe (EINECS)	Not Determined
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Not Determined

Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Not Determined
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Not Determined

16. OTHER INFORMATION

Related Product Codes	POLYPP1108, POLYPP1110, POLYPP1112, POLYPP1118, POLYPP1200, POLYPP1500, POLYPP2200, POLYPP3100, POLYPP3120, POLYPP3140, POLYPP3141, POLYPP3160, POLYPP3200, POLYPP3400, POLYPP3450, POLYPP3600, POLYPP3601, POLYPP3800, POLYPP3801, POLYPP4000, POLYPP4400, POLYPP5200, POLYPP5400, POLYPP6100, POLYPP6150, POLYPP6200, POLYPP6202, POLYPP6400, POLYPP6402, POLYPP6404, POLYPP6480, POLYPP7500, POLYPP8000, POPRGL1001
Revision	2
Revision Date	20 Apr 2015
Reason for Issue	Update SDS
Key/Legend	<p>< 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 Farenheit 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 insoluable 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 Heath and Safety Commission</p>

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