

## **1. IDENTIFICATION**

Product Name	Propylene Glycol
Other Names	1,2-Propylene glycol; Monopropylene glycol
Uses	Generally accepted for use in food, animal feed, flavours and cosmetics and as an excipient (inactive carrier) for pharmaceuticals. *Do not use in theatrical fogs or other artificial smoke generator applications; not an approved additive to cat foodstuff.
Chemical Family	No Data Available
Chemical Formula	C3H8O2
Chemical Name	1,2-Propanediol
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

Redox Ltd Corporate Office Sydney Locked Bag 15 Minto NSW 2566 Australia 2 Swettenham Road Minto NSW 2566 Australia All Deliveries: 4 Holmes Road Minto NSW 2566 Australia

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New Zealand Auckland Christchurch Hawke's Bay UK London

Malaysia Kuala Lumpur USA Los Angeles Oakland Mexico Saltillo



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 Dangero Dangerous Goods Classification		
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	

## **3. COMPOSITION/INFORMATION ON INGREDIENTS**

#### Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Propylene glycol	C3H8O2	57-55-6	<=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. Get medical advice/attention if large quantities are swallowed or if you feel unwell. IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting Eye 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: Remove and isolate contaminated clothing and shoes. Immediately flush skin with running water, followed by washing with soap, if available. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing and shoes before reuse. 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. Advice to Doctor Treat symptomatically. Following cases of gross over-exposure, investigation of liver, kidney and eye function may be advisable. Records of such incidents should be maintained for future reference. When administering first aid, ensure that you are wearing the appropriate personal protective equipment (see SECTION 8) according to the incident, injury and surroundings. \*Most important symptoms and effects, both acute and delayed: No specific hazards under normal use conditions. Ingestion may result in nausea, vomiting and/or diarrhoea. Skin irritation signs and symptoms may include a burning sensation, redness or swelling. Eye irritation signs and symptoms may include a burning sensation, redness, swelling and/or blurred vision. Possible respiratory irritation signs and symptoms may include a temporary burning sensation of the nose and throat, coughing and/or difficulty breathing.

Medical Conditions Aggravated by No information available. Exposure

## **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. Dike fire-control water for later disposal.
Flammability Conditions	Combustible liquid; May burn but does not ignite readily.
Extinguishing Media	Use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction - Do not use water jets.
Fire and Explosion Hazard	Containers may explode when heated. When heated, vapours may form explosive mixtures with air.
Hazardous Products of Combustion	Fire may produce irritating and/or toxic gases, including Carbon oxides.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may cause pollution.
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
Flash Point	99 °C [PMCC]
Lower Explosion Limit	2.6 %
Upper Explosion Limit	12.6 %
Auto Ignition Temperature	371 - 421 °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. Avoid breathing mist/vapours and contact with eyes, skin and clothing.
Clean Up Procedures	Transfer by mechanical means, such as vacuum truck, to a salvage tank for recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely (see SECTION 13).
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	Ventilate contaminated area thoroughly. Do not flush away residues with water. Retain as contaminated waste.
Environmental Precautionary Measures	Prevent entry into drains and waterways. Local authorities should be advised if significant spillages cannot be contained.
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 S	TORAGE
Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing mist/vapours and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Combustible liquid: Keep away from heat and sources of ignition - No smoking. Do not pressurise containers to empty.
Storage	Store in a cool, dry and well-ventilated place, protected from frost, heat and sunlight. Keep container tightly closed. Avoid exposure to air and moisture. Keep away from heat and sources of ignition - No smoking. Keep away from incompatible materials (see SECTION 10) and foodstuff containers. *Recommended storage temperature: <=40 °C

Keep in the original container or suitable material, i.e. Stainless steel, Mild steel, Carbon steel. \*Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	For Propane-1,2-diol (CAS No. 57-55-6): - Safe Work Australia Exposure Standard (vapour & particulates): TWA = 150 ppm (474 mg/m3). - Safe Work Australia Exposure Standard (particulates only): TWA = 10 mg/m3. - New Zealand Workplace Exposure Standard (vapour & particulates): TWA = 150 ppm (474 mg/m3). - New Zealand Workplace Exposure Standard (particulates only): TWA = 10 mg/m3.
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	<ul> <li>Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Organic vapour/particulate filter respirator (refer to AS/NZS 1715 &amp; 1716).</li> <li>Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses or goggles.</li> <li>Hand protection: Handle with gloves. Recommended: Chemical-resistant gloves, e.g. Nitrile rubber.</li> <li>Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Chemical-resistance workwear, safety shoes.</li> </ul>
Special Hazards Precaustions	No information available.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. Always wash hands after handling the material and before eating, drinking and/or smoking. Take off contaminated clothing and wash it before reuse. Discard contaminated clothing and footwear that cannot be cleaned.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Clear liquid
Odour	Odourless
Colour	Colourless
рН	7
Vapour Pressure	ca. 7 Pa (@ 20 °C)
Relative Vapour Density	2.5 Air = 1
Boiling Point	186 - 189 °C
Melting Point	No Data Available
Freezing Point	<-59 °C
Solubility	Miscible with water
Specific Gravity	1.04 [ASTM D4052]
Flash Point	99 °C [PMCC]
Auto Ignition Temp	371 - 421 °C
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	1.036 kg/m3 [ASTM D4052]

Specific Heat	No Data Available
Molecular Weight	76.1 g/mol
Net Propellant Weight	No Data Available
Octanol Water Coefficient	log Pow: ca1
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	20 °C
Viscosity	55 mPa.s (@ 20 °C)
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	Surface tension: 71.6 mN/m, 21.5 °C (70.7 °F) Conductivity: Electrical conductivity: > 10,000 pS/m *A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid, This material is not expected to be a static accumulator.
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	No information available.
Properties That May Initiate or Contribute to Fire Intensity	Combustible liquid; May burn but does not ignite readily.
Reactions That Release Gases or Vapours	Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide, sulphur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.
Release of Invisible Flammable Vapours and Gases	When heated, vapours may form explosive mixtures with air.

## **10. STABILITY AND REACTIVITY**

General Information	Oxidises on contact with air.
Chemical Stability	Stable under recommended conditions of storage and handling.
Conditions to Avoid	Keep away from heat and sources of ignition.
Materials to Avoid	Incompatible/reactive with strong oxidising agents, strong acids, strong bases, isocyanates.
Hazardous Decomposition Products	Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide, sulphur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.
Hazardous Polymerisation	Hazardous polymerisation will not occur.

## **11. TOXICOLOGICAL INFORMATION**

## **General Information**

Information on toxicological effects:

- Acute toxicity: Based on available data, the classification criteria are not met.
- Skin corrosion/irritation: Based on available data, the classification criteria are not met.
- Serious eye damage/irritation: Based on available data, the classification criteria are not met.
- Respiratory/skin sensitisation: Based on available data, the classification criteria are not met.

- Germ cell mutagenicity: Based on available data, the classification criteria are not met.

- Carcinogenicity: Based on available data, the classification criteria are not met.

- Reproductive toxicity: Based on available data, the classification criteria are not met.

- STOT (single exposure): Based on available data, the classification criteria are not met.

- STOT (repeated exposure): Based on available data, the classification criteria are not met. Cats given high doses of MPG in diet showed a decrease in red blood cell survival.

- Aspiration toxicity: Based on available data, the classification criteria are not met.

Information on likely routes of exposure:

- Ingestion: No specific hazards under normal use conditions. Ingestion may result in nausea, vomiting and/or diarrhoea.
   Eye contact: No specific hazards under normal use conditions. Eye irritation signs and symptoms may include a burning
- sensation, redness, swelling and/or blurred vision.

- Skin contact: No specific hazards under normal use conditions. Skin irritation signs and symptoms may include a burning sensation, redness or swelling.

- Inhalation: Not considered to be an inhalation hazard under normal conditions of use. Possible respiratory irritation signs and symptoms may include a temporary burning sensation of the nose and throat, coughing and/or difficulty breathing. Chronic effects: No information available.

Acute	
Ingestion	Acute toxicity (Oral): - LD50, Rat (male & female): 22,000 mg/kg bw. [Literature data].
Other	Acute toxicity (Dermal): - LD50, Rabbit: >2,000 mg/kg bw. [Supplier's SDS].
Inhalation	Acute toxicity (Inhalation): - LC50, Rabbit: >317 mg/l (2 h, aerosol) [Literature data].
Carcinogen Category	None

#### **12. ECOLOGICAL INFORMATION**

Ecotoxicity	Aquatic toxicity: - LC50, Fish (Oncorhynchus mykiss): 40,613 mg/L (96 h) [Test(s) equivalent or similar to OECD Guideline 203]. - LC50, Crustacea (Ceriodaphnia dubia): 18,340 mg/l (48 h) [Test(s) equivalent or similar to OECD Guideline 202]. - EC50, Algae/aquatic plants (Pseudokirchneriella subcapitata): 19,000 mg/l (96 h) [OECD Test Guideline 201].
Persistence/Degradability	Ready biodegradable (97 %, 28 d) [OECD Test Guideline 301F].
Mobility	If the product enters soil, one or more constituents will or may be mobile and may contaminate groundwater.
Environmental Fate	Prevent entry into drains and waterways.
<b>Bioaccumulation Potential</b>	Low potential for bioaccumulation.
Environmental Impact	No Data Available

#### **13. DISPOSAL CONSIDERATIONS**

General Information	Recover or recycle, if possible. Waste product/packaging should not be allowed to contaminate soil or ground water, or be disposed of into the environment. Disposal should be in accordance with applicable regional, national and local laws and regulations, preferably to a recognised collector or contractor.
Special Precautions for Land Fill	Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers.

## **14. TRANSPORT INFORMATION**

## Land Transport (Australia) ADG Code

ADO COUE	
Proper Shipping Name	Propylene Glycol
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.
<b>Land Transport (Canada)</b> TDG	
Proper Shipping Name	Propylene 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
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.
<b>Land Transport (Malaysia)</b> ADR Code	
Proper Shipping Name	Propylene 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
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.
<b>Land Transport (Mexico)</b> NOMs	
Proper Shipping Name	Propylene 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
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

## Land Transport (New Zealand) NZS5433

Proper Shipping Name	Propylene 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
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

## Land Transport (United States of America) US DOT

Proper Shipping Name	Propylene 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
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.
Sea Transport IMDG Code	
Proper Shipping Name	Propylene 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
Comments	NON-DANGEROUS GOODS: Not regulated for SEA transport.

# Air Transport

IA	TΑ	DGR

Proper Shipping Name	Propylene 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
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 G	Goods C	lassification
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NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

### **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 (AIIC)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Determined
China (IECSC)	Listed
Europe (EINECS)	200-338-0
Europe (REACh)	Not Determined
Japan (ENCS/METI)	Listed
Korea (KECI)	Listed
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**

PRGLYC0032, PRGLYC1000, PRGLYC1001, PRGLYC1002, PRGLYC1003, PRGLYC1004, PRGLYC1005, PRGLYC1009, PRGLYC1010, PRGLYC1011, PRGLYC1012, PRGLYC1013, PRGLYC1020, PRGLYC1030, PRGLYC1100, PRGLYC1101, PRGLYC1200, PRGLYC1201, PRGLYC1202, PRGLYC1203, PRGLYC1300, PRGLYC1400, PRGLYC1500, PRGLYC1700, PRGLYC1800, PRGLYC1801, PRGLYC1802, PRGLYC1803, PRGLYC1804, PRGLYC1805, PRGLYC1806, PRGLYC1807, PRGLYC1808, PRGLYC1809, PRGLYC1810, PRGLYC1811, PRGLYC1812, PRGLYC1813, PRGLYC1814, PRGLYC1815, PRGLYC1816, PRGLYC1817, PRGLYC1818, PRGLYC1819, PRGLYC1820, PRGLYC1821, PRGLYC1822, PRGLYC1823, PRGLYC1824, PRGLYC1825, PRGLYC1900, PRGLYC1950, PRGLYC2000, PRGLYC2600, PRGLYC2800, PRGLYC2801, PRGLYC2802, PRGLYC2803, PRGLYC2900, PRGLYC3000, PRGLYC3001, PRGLYC3002, PRGLYC3010, PRGLYC3011, PRGLYC3020, PRGLYC3029, PRGLYC3030, PRGLYC3033, PRGLYC3035, PRGLYC3036, PRGLYC3037, PRGLYC3038, PRGLYC3039, PRGLYC3040, PRGLYC3100, PRGLYC3101, PRGLYC3102, PRGLYC3200, PRGLYC3201, PRGLYC3202, PRGLYC3203, PRGLYC3300, PRGLYC3400, PRGLYC3500, PRGLYC3501, PRGLYC3800, PRGLYC4000, PRGLYC4001, PRGLYC4002, PRGLYC4003, PRGLYC4300, PRGLYC4307, PRGLYC4500, PRGLYC5000, PRGLYC5001, PRGLYC5002, PRGLYC5100, PRGLYC5200, PRGLYC5300, PRGLYC5400, PRGLYC6000, PRGLYC6001, PRGLYC6002, PRGLYC6100, PRGLYC6200, PRGLYC6201, PRGLYC6300, PRGLYC6301, PRGLYC7000, PRGLYC7001, PRGLYC7500, PRGLYC8000, PRGLYC8400, PRGLYC8401, PRGLYC8402, PRGLYC8403, PRGLYC8404, PRGLYC8405, PRGLYC8406, PRGLYC8407, PRGLYC8408, PRGLYC8409, PRGLYC8410, PRGLYC8411, PRGLYC8412, PRGLYC8413, PRGLYC8414, PRGLYC8415, PRGLYC8416, PRGLYC8417, PRGLYC8418, PRGLYC8419, PRGLYC8420, PRGLYC8421, PRGLYC8422, PRGLYC8423, PRGLYC8424, PRGLYC8425, PRGLYC8426, PRGLYC8500, PRGLYC8501, PRGLYC8502, PRGLYC8503, PRGLYC8504,

SAFETY DATA SHEET PROPYLENE GLYCOL REVISION 5, DATE 29 DEC 2022

PRGLYC8424, PRGLYC8425, PRGLYC8426, PRGLYC8500, PRGLYC8501, PRGLYC8502, PRGLYC8503, PRGLYC8504, PRGLYC8505, PRGLYC8506, PRGLYC8507, PRGLYC8508, PRGLYC8509, PRGLYC8510, PRGLYC8511, PRGLYC8512, PRGLYC9000, PRGLYI0500, PRGLYI0600, PRGLYI0700, PRGLYI0800, PRGLYI0900, PRGLYI1000, PRGLYI1001, PRGLYI1002, PRGLYI1003, PRGLYI1004, PRGLYI1005, PRGLYI1006, PRGLYI1007, PRGLYI1008, PRGLYI1009, PRGLYI1010, PRGLYI1011, PRGLYI1100, PRGLYI1200, PRGLYI1300, PRGLYI1400, PRGLYI1800, PRGLYI1900, PRGLYI2000, PRGLYI2100, PRGLYI3000, PRGLYI3001, PRGLYI3002, PRGLYI6000, PRGLYI6031, PRGLYI6030, PRGLYI7000, PRGLYI7001

Revision Revision Date Key/Legend

#### 5

29 Dec 2022 < Less Than > Greater Than AICS Australian Inventory of Chemical Substances atm Atmosphere CAS Chemical Abstracts Service (Registry Number) cm<sup>2</sup> 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/cm<sup>3</sup> Grams per Cubic Centimetre g/I 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 inH20 Inch of Water K Kelvin kg Kilogram kg/m<sup>3</sup> Kilograms per Cubic Metre Ib 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. Itr or L Litre m<sup>3</sup> Cubic Metre mbar Millibar mg Milligram mg/24H Milligrams per 24 Hours mg/kg Milligrams per Kilogram mg/m<sup>3</sup> Milligrams per Cubic Metre Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present. mm Millimetre mmH20 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 **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