SAFETY DATA SHEET
GLYCOLIC ACID 70% SOLUTION
REVISION 5, DATE 20 JUL 2022

1. IDENTIFICATION

Product Name	**Glycolic Acid 70% Solution**
Other Names	Glycolic Acid 70% Commerical Grade; Glycolic Acid Cosmetic Grade; Hydroxyacetic acid solution
Uses	Household & institutional cleaners; Water treatment; Metal processing; Electronics; Leather & textile dyeing and finishing; Oil & gas well applications; Adhesives; Lubricating oil additives; Cement strengthening; Cosmetic.
Chemical Family	No Data Available
Chemical Formula	C2H4O3
Chemical Name	Glycolic acid, aqueous solution
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	Suite 13A.03, Menara Summit Persiaran Kewajipan USJ1 47600 UEP Subang Jaya Selangor, 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	Australia – Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
National Poison Centre	Malaysia	+60-4-6536-999
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			Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
Hazard Categories			Acute Toxicity (Inhalation) - Category 4 Skin Corrosion/Irritation - Category 1B Serious Eye Damage/Irritation - Category 1
Pictograms			
Signal Word			Danger
Hazard Statements		**H314**	Causes severe skin burns and eye damage.
		H332	Harmful if inhaled.
Precautionary Statements	Prevention	**P260**	Do not breathe mist/vapour/spray.
		P280	Wear protective gloves/protective clothing/eye protection/face protection.
		P271	Use only outdoors or in a well-ventilated area.
	Response	**P303 + P361 + P353**	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
		P310	Immediately call a POISON CENTER or doctor.
		P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
		P363	Wash contaminated clothing before reuse.
		P391	Collect spillage.
		P304 + P340	IF INHALED: Remove victim to fresh air and keep comfortable for breathing.
	Storage	**P405**	Store locked up.
	Disposal	**P501**	Dispose of contents/container in accordance with local / regional / national / international regulations.

National Transport Commission (Australia)

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

Dangerous Goods Classification	Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Safe Work Australia

National Guide for Classifying Hazardous Chemicals under the Model WHS Regulations

Hazard Classification	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
Glycolic acid	C2H4O3	79-14-1	68 - 72 %
Water	H2O	7732-18-5	28 - 32 %

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. Immediately call a Poison Centre or doctor/physician for advice. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Never give anything by mouth to an unconscious person. Transport to hospital or doctor without delay!

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. Immediately call a Poison Centre or doctor/physician for advice. Transport to hospital or doctor without delay!
*Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin
IF ON SKIN (or hair): Remove and isolate contaminated clothing and shoes. Immediately flush skin and hair with running water for at least 15 minutes. Treat chemical burns as thermal burns with non-adherent gauze and wrapping. Immediately call a Poison Centre or doctor/physician for advice. Wash contaminated clothing and shoes before reuse.
*For minor skin contact, avoid spreading material on unaffected skin.

Inhaled
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a Poison Centre or doctor/physician for advice. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult.

Advice to Doctor
Treat symptomatically. Keep victim calm and warm. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
*Most important symptoms and effects, both acute and delayed: Harmful if inhaled. Causes severe skin burns and eye damage. Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema. Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs).

Medical Conditions Aggravated by Exposure
No information available.

5. FIRE FIGHTING MEASURES

General Measures
Alert Fire Brigade and tell them location and nature of hazard. Move containers from fire area if you can do it without risk. Do not approach containers suspected to be hot. Cool containers with flooding quantities of water until well after fire is out. Do not get water inside containers.

Flammability Conditions
Non-combustible; However, following evaporation of aqueous component under fire conditions, the non-aqueous component may decompose and/or burn.

Extinguishing Media
If material is involved in a fire, use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction. Dike fire-control water for later disposal; do not scatter the material.

Fire and Explosion Hazard
Contact with metals may evolve flammable hydrogen gas. Heating may cause expansion or decomposition leading to violent rupture of containers.

Hazardous Products of Combustion
Decomposes on heating and may produce toxic fumes of carbon monoxide (CO), carbon dioxide (CO2), other pyrolysis products typical of burning organic material. May emit acrid smoke.

Special Fire Fighting Instructions
Contain runoff from fire control or dilution water - Runoff may be corrosive and/or toxic and cause pollution.

Personal Protective Equipment
Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing - It may provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

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	2X

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation - Ventilate enclosed spaces before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material. Clean up all spills immediately! Do not breathe mist/vapours and prevent contact with eyes, skin and clothing.
Clean Up Procedures	Collect recoverable product into labelled containers for recycling. Absorb residues with earth, sand or other non-combustible material and transfer to a suitable, properly labelled container for disposal (see SECTION 13).
Containment	Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas.
Decontamination	Neutralise/decontaminate residue. Wash area and prevent runoff into drains. *Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material.
Environmental Precautionary Measures	Spillages and decontamination runoff should be prevented from entering drains and watercourses. If contamination of drains or waterways occurs, advise emergency services.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher ground.
Personal Precautionary Measures	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (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 - Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice. Do not breathe mist/vapours and prevent contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection and suitable respirator (see SECTION 8). Keep away from heat and sources of ignition - No smoking. *WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material.
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Protect containers against physical damage and check regularly for leaks. Keep away from heat and sources of ignition - No smoking. Keep away from incompatible materials (see SECTION 10) and foodstuff containers. Store locked up.
Container	Keep in the original container. Check all containers are clearly labelled and free from leaks. *DO NOT use aluminium, galvanised or tin-plated containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No specific exposure standards are available for this product.
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: Type AB-P Filter of sufficient capacity (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Chemical goggles. Full face shield may be required for supplementary, but never for primary, protection of eyes.

	- Hand protection: Wear protective gloves. Recommended: Elbow length PVC gloves. - Skin/body protection: Wear appropriate personal protective clothing to prevent skin contact. Recommended: Overalls, PVC Apron, PVC protective suit may be required if exposure severe. When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.
Special Hazards Precaustions	No information available.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. Always wash hands with soap and water after handling. Take off immediately all contaminated clothing. Work clothes should be laundered separately. Launder contaminated clothing before re-use. DO NOT allow clothing wet with material to stay in contact with skin.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Liquid
Odour	Mild
Colour	Light yellow
pH	<1 (as supplied)
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	112 °C
Melting Point	No Data Available
Freezing Point	No Data Available
Solubility	Miscible with water
Specific Gravity	1.2 (Water = 1)
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	No Data Available
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	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	No information available.
Properties That May Initiate or Contribute to Fire Intensity	Non-combustible; However, following evaporation of aqueous component under fire conditions, the non-aqueous component may decompose and/or burn.
Reactions That Release Gases or Vapours	Decomposes on heating and may produce toxic fumes of carbon monoxide (CO), carbon dioxide (CO2), other pyrolysis products typical of burning organic material. May emit acrid smoke.
Release of Invisible Flammable Vapours and Gases	Contact with metals may evolve flammable hydrogen gas.

10. STABILITY AND REACTIVITY

General Information	Contact with alkaline material liberates heat. Contact with metals may evolve flammable hydrogen gas.
Chemical Stability	Product is considered stable. *Unstable in the presence of incompatible materials.
Conditions to Avoid	Avoid contact with incompatible materials. Keep away from heat and sources of ignition.
Materials to Avoid	Segregate from alkalis, oxidising agents and chemicals readily decomposed by acids, i.e. cyanides, sulfides, carbonates. *Reacts with mild steel, galvanised steel/zinc producing hydrogen gas which may form an explosive mixture with air.
Hazardous Decomposition Products	Decomposes on heating and may produce toxic fumes of carbon monoxide (CO), carbon dioxide (CO2), other pyrolysis products typical of burning organic material.
Hazardous Polymerisation	Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

General Information

Information on toxicological effects:
- Acute toxicity: May be harmful if swallowed. Harmful if inhaled.
- Skin corrosion/irritation: Causes severe skin burns and eye damage.
- Eye damage/irritation: Causes serious eye damage.
- Respiratory/skin sensitisation: Data either not available or does not fill the criteria for classification.
- Germ cell mutagenicity: Data either not available or does not fill the criteria for classification.
- Carcinogenicity: Data either not available or does not fill the criteria for classification.
- Reproductive toxicity: Data either not available or does not fill the criteria for classification.
- STOT (single exposure): Data either not available or does not fill the criteria for classification.
- STOT (repeated exposure): Data either not available or does not fill the criteria for classification.
- Aspiration toxicity: Data either not available or does not fill the criteria for classification.

Information on likely routes of exposure:
- Ingestion: Strong evidence exists that exposure to the material may produce very serious irreversible damage following a single exposure by swallowing. Ingestion of acidic corrosives may produce circumoral burns with a distinct discolouration of the mucous membranes of the mouth, throat and oesophagus. Immediate pain and difficulties in swallowing and speaking may also be evident. Oedema of the epiglottis may produce respiratory distress and possibly, asphyxia. Nausea, vomiting, diarrhoea and a pronounced thirst may occur. More severe exposures may produce a vomitus containing fresh or dark blood and large shreds of mucosa. Shock, with marked hypotension, weak and rapid pulse, shallow respiration and clammy skin may be symptomatic of the exposure. Circulatory collapse may, if left untreated, result in renal failure. Severe cases may show gastric and oesophageal perforation with peritonitis, fever and abdominal rigidity. Stricture of the oesophageal, gastric and pyloric sphincter may occur as within several weeks or may be delayed for years. Death may be rapid and often results from asphyxia, circulatory collapse or aspiration of even minute amounts. Delayed deaths may be due to peritonitis, severe nephritis or pneumonia. Coma and convulsions may be terminal.
- Eye contact: Direct eye contact with acid corrosives may produce pain, lachrymation, photophobia and burns. Mild burns of the epithelia generally recover rapidly and completely. Severe burns produce long-lasting and possible irreversible damage. The appearance of the burn may not be apparent for several weeks after the initial contact. The cornea may ultimately become deeply vascularised and opaque resulting in blindness.
- Skin contact: Strong evidence exists that exposure to the material may produce very serious irreversible damage

following a single exposure by skin contact. Skin contact with acidic corrosives may result in pain and burns; these may be deep with distinct edges and may heal slowly with the formation of scar tissue.
- Inhalation: Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful. Strong evidence exists that exposure to the material may produce very serious irreversible damage following a single exposure by inhalation. Acidic corrosives produce respiratory tract irritation with coughing, choking and mucous membrane damage. Symptoms of exposure may include dizziness, headache, nausea and weakness. In more severe exposures, pulmonary oedema may be evident either immediately or after a latent period of 5-72 hours. Symptoms of pulmonary oedema include a tightness in the chest, dyspnoea, frothy sputum and cyanosis. Examination may reveal hypotension, a weak and rapid pulse and moist rates. Death, due to anoxia, may occur several hours after onset of the pulmonary oedema.
Chronic effects: Repeated or prolonged exposure to acids may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. Gastrointestinal disturbances may also occur. Chronic exposures may result in dermatitis and/or conjunctivitis.

Acute

Ingestion

Acute toxicity (Oral):
COMPONENT: Glycolic acid (CAS No. 79-14-1):
- LD50, Rat: 2,040 mg/kg [Supplier's SDS].

Inhalation

Acute toxicity (Inhalation):
COMPONENT: Glycolic acid (CAS No. 79-14-1):
- LC50, Rat: 3.6 mg/L (4 h) mist [Supplier's SDS].

Carcinogen Category

None

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic toxicity:
COMPONENT: Glycolic acid (CAS No. 79-14-1):
- LC50, Fish: 164 mg/l (96 h) [ECHA].
- EC50, Crustacea: 141 mg/l (48 h) [ECHA].
- EC50, Algae/aquatic plants: 21.6 mg/l (72 h) [ECHA].
- NOEC, Algae/aquatic plants: 10 mg/l (72 h) [ECHA].

Persistence/Degradability

COMPONENT: Glycolic acid (CAS No. 79-14-1):
- Persistence (Water/Soil): Low
- Persistence (Air): Low

Mobility

COMPONENT: Glycolic acid (CAS No. 79-14-1):
- Mobility in Soil: High (KOC = 1)

Environmental Fate

Prevent, by any means available, spillage from entering drains or water courses.

Bioaccumulation Potential

COMPONENT: Glycolic acid (CAS No. 79-14-1):
- Bioaccumulation: Low (LogKOW = -1.11)

Environmental Impact

No Data Available

13. DISPOSAL CONSIDERATIONS

General Information

Recycle, wherever possible, or dispose of contents/container in accordance with local/regional/national regulations. DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
*This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

Special Precautions for Land Fill

Containers may still present a chemical hazard/danger when empty. Decontaminate empty containers with 5% aqueous sodium hydroxide or soda ash, followed by water. Observe all label safeguards until containers are cleaned and destroyed.

14. TRANSPORT INFORMATION

Land Transport (Australia)
ADG Code

Proper Shipping Name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Contains Glycolic acid)
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	37 Toxic And/Or Corrosive Substances Non-Combustible
UN Number	3265
Hazchem	2X
Pack Group	II
Special Provision	No Data Available

Land Transport (Malaysia)
ADR Code

Proper Shipping Name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Contains Glycolic acid)
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	37 Toxic And/Or Corrosive Substances Non-Combustible
UN Number	3265
Hazchem	2X
Pack Group	II
Special Provision	No Data Available

Land Transport (New Zealand)
NZS5433

Proper Shipping Name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Contains Glycolic acid)
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	37 Toxic And/Or Corrosive Substances Non-Combustible
UN Number	3265
Hazchem	2X
Pack Group	II
Special Provision	No Data Available

Land Transport (United States of America)
US DOT

Proper Shipping Name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Contains Glycolic acid)
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
ERG	153 Substances - Toxic and/or Corrosive (Combustible)
UN Number	3265
Hazchem	2X

Pack Group	II
Special Provision	No Data Available

Sea Transport
IMDG Code

Proper Shipping Name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Contains Glycolic acid)
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
UN Number	3265
Hazchem	2X
Pack Group	II
Special Provision	No Data Available
EMS	F-A, S-B
Marine Pollutant	No

Air Transport
IATA DGR

Proper Shipping Name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Contains Glycolic acid)
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
UN Number	3265
Hazchem	2X
Pack Group	II
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	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	GLYCOLIC ACID (including its salts and esters) is listed in Schedule 6 of the SUSMP in cosmetic products or when packed and labelled for use as an agricultural chemical.
Poisons Schedule (Aust)	Not Scheduled

Environmental Protection Authority (New Zealand)
Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	HSR002491 - Additives Process Chemicals and Raw Materials (Corrosive) Group Standard 2020

National/Regional Inventories

Australia (AIIC)	Listed

Canada (DSL)	Listed
Canada (NDSL)	Not Determined
China (IECSC)	Listed
Europe (EINECS)	Listed
Europe (REACh)	Not Determined
Japan (ENCS/METI)	Listed
Korea (KECI)	Listed
Malaysia (List of Classified Substances)	Not Listed
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Listed
Taiwan (TCSI)	Listed
USA (TSCA)	Listed
Mexico (INSQ)	Listed

16. OTHER INFORMATION

Related Product Codes	GLACID1000, GLACID1001, GLACID1002, GLACID1003, GLACID1004, GLACID1005, GLACID1007, GLACID1008, GLACID1016, GLACID1020, GLACID1026, GLACID1070, GLACID1077, GLACID1100, GLACID1120, GLACID1500, GLACID2500, GLACID2501, GLACID2510, GLACID2511, GLACID2520, GLACID3000, GLACID4000, GLACID4300, GLACID4301, GLACID5000, GLACID5111, GLACID5500, GLACID5501
Revision	5
Revision Date	20 Jul 2022
Key/Legend	< Less Than > Greater Than **AICS** Australian Inventory of Chemical Substances **atm** Atmosphere **CAS** Chemical Abstracts Service (Registry Number) **cm^2** 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^3** 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/m^3** 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
m^3 Cubic Metre
mbar Millibar
mg Milligram
mg/24H Milligrams per 24 Hours
mg/kg Milligrams per Kilogram
mg/m^3 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
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