

## 1. IDENTIFICATION

<b>Product Name</b>	<b>Ammonium Sulphate</b>
<b>Other Names</b>	Ammonium Sulfate (2:1); Diammonium Sulfate; Diammonium Sulphate; Sulfuric Acid, Diammonium Salt
<b>Uses</b>	Laboratory chemicals, Manufacture of substances
<b>Chemical Family</b>	No Data Available
<b>Chemical Formula</b>	H <sub>8</sub> N <sub>2</sub> O <sub>4</sub> S
<b>Chemical Name</b>	Ammonium Sulphate
<b>Product Description</b>	No Data Available

### Contact Details of the Supplier of this Safety Data Sheet

<b>Organisation</b>	<b>Location</b>	<b>Telephone</b>
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.	2132A E. Dominguez Street Carson CA 90810 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	No. 8, Block G, Ground Floor, Taipan 2 Jalan PJU 1A/3 Ara Damansara 47301, Petaling Jaya, Selangor, Malaysia	+60-3-7843-6833

### Emergency Contact Details

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

<b>Organisation</b>	<b>Location</b>	<b>Telephone</b>
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 &amp; 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 &amp; 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

Environmental Hazards

**9.1D**

Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action

**9.3C**

Substances that are harmful to terrestrial vertebrates

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

## Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Ammonium Sulphate	No Data Available	7783-20-2	>99.0 %

## 4. FIRST AID MEASURES

## Description of necessary measures according to routes of exposure

## Swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. Show this safety data sheet to the doctor in attendance.

## Eye

Flush eyes with water as a precaution. Consult a physician. Show this safety data sheet to the doctor in attendance.

## Skin

Wash off with soap and plenty of water. Consult a physician. Show this safety data sheet to the doctor in attendance.

## Inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. Show this safety data sheet to the doctor in attendance.

## Advice to Doctor

Treat symptomatically based on judgement of doctor and individual reactions of patient.

## Medical Conditions Aggravated by Exposure

No information available on medical conditions aggravated by exposure to this product.

## 5. FIRE FIGHTING MEASURES

## General Measures

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.

## Flammability Conditions

The product itself does not burn.

## Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water, Water spray, Carbon dioxides and dry chemical powder.

## Fire and Explosion Hazard

Product is a non-flammable solid.

## Hazardous Products of Combustion

In case of combustion, toxic fumes are emitted: Nitrogen oxides (NOx), Sulphur oxides, Ammonia gas.

## Special Fire Fighting Instructions

Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.

<b>Personal Protective Equipment</b>	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).
<b>Flash Point</b>	No Data Available
<b>Lower Explosion Limit</b>	No Data Available
<b>Upper Explosion Limit</b>	No Data Available
<b>Auto Ignition Temperature</b>	No Data Available
<b>Hazchem Code</b>	No Data Available

## 6. ACCIDENTAL RELEASE MEASURES

<b>General Response Procedure</b>	Avoid accidents, clean up immediately. Slippery when spilt. Eliminate all sources of ignition. Increase ventilation. Avoid generating dust. Stop leak if safe to do so. Isolate the danger area. Use clean, non-sparking tools and equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.
<b>Clean Up Procedures</b>	Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Transfer to a suitable, labelled container and dispose of promptly.
<b>Containment</b>	Stop leak if safe to do so. Isolate the danger area.
<b>Decontamination</b>	Cover with waterproof sheet and avoid raising dust. Be careful not to produce dust as much as possible.
<b>Environmental Precautionary Measures</b>	Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management. Due to NH <sub>4</sub> <sup>+</sup> and its high water solubility, it may be harmful to aquatic organisms.
<b>Evacuation Criteria</b>	Evacuate all unnecessary personnel.
<b>Personal Precautionary Measures</b>	Personnel involved in the clean up should wear full protective clothing as listed in section 8.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Wear proper protective equipment to avoid inhalation of dust. Good local exhaust ventilation. Avoid rough handling.
<b>Storage</b>	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Not be exposed to the air long time because this product has little hygroscopic. Store in dry place with low humidity. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.
<b>Container</b>	Store in original packaging as approved by manufacturer. Poly ethylene, Poly propylene, Paper, hemp and chloroethylene are resistant as containers and packaging.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General</b>	No exposure standard has been established for this product by the Australian Safety and Compensation Council (ASCC). However, the exposure standard for dust not otherwise specified is 10mg/m <sup>3</sup> (for inspirable dust) and 3mg/m <sup>3</sup> (for respirable dust). NOTE: The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.
<b>Exposure Limits</b>	No Data Available
<b>Biological Limits</b>	No information available on biological limit values for this product.
<b>Engineering Measures</b>	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.
<b>Personal Protection Equipment</b>	RESPIRATOR: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 or type P1 dust masks (AS1715/1716).

EYES: Safety glasses with side shields (AS1336/1337).  
HANDS: Nitrile gloves (AS2161).  
CLOTHING: Chemical-resistant coveralls and safety footwear (AS3765/2210).

### Special Hazards Precautions

Further details on Personal protective equipment:

Eye/face protection:

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact:

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Splash contact:

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection:

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Work Hygienic Practices

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Solid
<b>Appearance</b>	Crystalline (rhombic or grained crystal)
<b>Odour</b>	Odourless
<b>Colour</b>	White
<b>pH</b>	5 - 6 132 g/L (25 deg C)
<b>Vapour Pressure</b>	No Data Available
<b>Relative Vapour Density</b>	No Data Available
<b>Boiling Point</b>	No Data Available
<b>Melting Point</b>	>280 °C
<b>Freezing Point</b>	No Data Available
<b>Solubility</b>	132 g/L (Completely Soluble) 20°C
<b>Specific Gravity</b>	No Data Available
<b>Flash Point</b>	No Data Available
<b>Auto Ignition Temp</b>	No Data Available
<b>Evaporation Rate</b>	No Data Available
<b>Bulk Density</b>	No Data Available
<b>Corrosion Rate</b>	No Data Available
<b>Decomposition Temperature</b>	No Data Available
<b>Density</b>	1.77 g/cm <sup>3</sup> Relative
<b>Specific Heat</b>	No Data Available
<b>Molecular Weight</b>	132.14 g/mol
<b>Net Propellant Weight</b>	No Data Available

<b>Octanol Water Coefficient</b>	-5.1 (25 deg C)
<b>Particle Size</b>	No Data Available
<b>Partition Coefficient</b>	No Data Available
<b>Saturated Vapour Concentration</b>	No Data Available
<b>Vapour Temperature</b>	No Data Available
<b>Viscosity</b>	No Data Available
<b>Volatile Percent</b>	No Data Available
<b>VOC Volume</b>	No Data Available
<b>Additional Characteristics</b>	Fat solubility : Insoluble to acetone, ethyl alcohol and carbon disulphide.
<b>Potential for Dust Explosion</b>	No Data Available
<b>Fast or Intensely Burning Characteristics</b>	No Data Available
<b>Flame Propagation or Burning Rate of Solid Materials</b>	No Data Available
<b>Non-Flammables That Could Contribute Unusual Hazards to a Fire</b>	No Data Available
<b>Properties That May Initiate or Contribute to Fire Intensity</b>	No Data Available
<b>Reactions That Release Gases or Vapours</b>	Decomposition may emit flammable ammonia gas.
<b>Release of Invisible Flammable Vapours and Gases</b>	No Data Available

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Product is stable under normal conditions of use, storage and temperature.
<b>Conditions to Avoid</b>	no data available
<b>Materials to Avoid</b>	Strong oxidizing agents (chlorates, nitrites and nitrates), Strong bases.
<b>Hazardous Decomposition Products</b>	Start decomposition at 120 deg C, Melting at 357 deg C then ammonium hydrogen sulphide and ammonia occur. Form ammonia gas with strong alkalis. Ammonia gas and sulphur dioxide
<b>Hazardous Polymerisation</b>	No Data Available

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	<p>Acute toxicity :</p> <p>Oral LD50 Rat: 2840 mg/kg</p> <p>Skin corrosion/irritation:</p> <p>Skin - rabbit</p> <p>Result: No skin irritation</p> <p>Skin - Human</p> <p>Result: Mild skin irritation</p> <p>Serious eye damage/eye irritation</p> <p>Eyes - rabbit</p> <p>Result: No eye irritation</p> <p>Eyes - Human</p> <p>Result: Mild eye irritation</p> <p>Mutagenicity :</p> <p>Ames test : Negative</p> <p>Chromosome abnormal test : Negative</p>
----------------------------	--

Reproductive toxicity :  
Inhalation toxicity test (Rats, 0.3 mg/l, 8h/day, for 14 days) : Negative

Carcinogenicity:  
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Carcinogen Category** No Data Available

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Toxicity to fish - *Oncorhynchus mykiss* (rainbow trout):  
LC50: 36.7 mg/l - 96 h  
LD50: 420 mg/L 96 h  
Toxicity to daphnia and other aquatic invertebrates:  
LC50: 433 mg/l 50 h  
EC50: 129 mg/L 48 h

**Persistence/Degradability** No Data Available

**Mobility** No Data Available

**Environmental Fate** Do NOT contaminate waterways, drains or sewers. Harmful to aquatic life.

**Bioaccumulation Potential** No Data Available

**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. Recycling and recovery the product if possible as fertilizer or effectively used for farm crops to diluted with water. Do not dispose near reactive substance like sodium hydroxide and high temperature place. Disposal must be in accordance with current national and local regulations or ask authorized industrial waste treatment agents which have capability of treatment. Do not dump this material into sewers, on the ground or into any body of water.

## 14. TRANSPORT INFORMATION

### Land Transport (Australia)

ADG Code

<b>Proper Shipping Name</b>	AMMONIUM SULPHATE
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available

**Land Transport (New Zealand)**

NZS5433

<b>Proper Shipping Name</b>	AMMONIUM SULPHATE
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available

**Land Transport (United States of America)**

US DOT

<b>Proper Shipping Name</b>	AMMONIUM SULPHATE
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available

**Sea Transport**

IMDG Code

<b>Proper Shipping Name</b>	AMMONIUM SULPHATE
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available
<b>EMS</b>	No Data Available
<b>Marine Pollutant</b>	No

**Air Transport**

IATA

<b>Proper Shipping Name</b>	AMMONIUM SULPHATE
<b>Class</b>	No Data Available
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	No Data Available
<b>Hazchem</b>	No Data Available
<b>Pack Group</b>	No Data Available
<b>Special Provision</b>	No Data Available

**National Transport Commission (Australia)**

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

<b>Dangerous Goods Classification</b>	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 HSR002770

**National/Regional Inventories**

<b>Australia (AICS)</b>	Listed
<b>Canada (DSL)</b>	Not Determined
<b>Canada (NDSL)</b>	Not Determined
<b>China (IECSC)</b>	Not Determined
<b>Europe (EINECS)</b>	Not Determined
<b>Europe (REACH)</b>	Not Determined
<b>Japan (ENCS/METI)</b>	Not Determined
<b>Korea (KECI)</b>	Not Determined
<b>Malaysia (EHS Register)</b>	Not Determined
<b>New Zealand (NZIoC)</b>	Not Determined
<b>Philippines (PICCS)</b>	Not Determined
<b>Switzerland (Giftliste 1)</b>	Not Determined
<b>Switzerland (Inventory of Notified Substances)</b>	Not Determined
<b>Taiwan (NCSR)</b>	Not Determined
<b>USA (TSCA)</b>	Not Determined

**16. OTHER INFORMATION**

**Related Product Codes**

AMSULB0400, AMSULB0600, AMSULB1000, AMSULB1001, AMSULB1002, AMSULB1003, AMSULB1004, AMSULB1800, AMSULB3100, AMSULB3101, AMSULB4500, AMSULB4501, AMSULB7300, AMSULB8000, AMSULG0400, AMSULG0600, AMSULG0700, AMSULG1000, AMSULG1001, AMSULG1002, AMSULG1003, AMSULG1004, AMSULG1005, AMSULG2600, AMSULG2800, AMSULG3200, AMSULG3300, AMSULG3400, AMSULG3600, AMSULG5300, AMSULG5400, AMSULG6000, AMSULG6001, AMSULP0200, AMSULP0400, AMSULP0500, AMSULP0600, AMSULP0700, AMSULP0800, AMSULP0900, AMSULP0901, AMSULP1000, AMSULP1001, AMSULP1002, AMSULP1003, AMSULP1004, AMSULP1005, AMSULP1006, AMSULP1007, AMSULP1008, AMSULP1009, AMSULP1010, AMSULP1011, AMSULP1012, AMSULP1013, AMSULP1014, AMSULP1015, AMSULP1016, AMSULP1017, AMSULP1018, AMSULP1019, AMSULP1020, AMSULP1021, AMSULP1022, AMSULP1023, AMSULP1024, AMSULP1025, AMSULP1026, AMSULP1027, AMSULP1028, AMSULP1029, AMSULP1030, AMSULP1031, AMSULP1032, AMSULP1033, AMSULP1034, AMSULP1035,



AMSULP1036, AMSULP1037, AMSULP1038, AMSULP1039, AMSULP1040, AMSULP1041, AMSULP1042, AMSULP1043, AMSULP1044, AMSULP1045, AMSULP1046, AMSULP1047, AMSULP1048, AMSULP1049, AMSULP1050, AMSULP1051, AMSULP1052, AMSULP1100, AMSULP1101, AMSULP1200, AMSULP1201, AMSULP1300, AMSULP1301, AMSULP1400, AMSULP1401, AMSULP1500, AMSULP1600, AMSULP1601, AMSULP1700, AMSULP1701, AMSULP1800, AMSULP1900, AMSULP2000, AMSULP2001, AMSULP2100, AMSULP2101, AMSULP2200, AMSULP2201, AMSULP2300, AMSULP2400, AMSULP2500, AMSULP2501, AMSULP2600, AMSULP2601, AMSULP2602, AMSULP2700, AMSULP2701, AMSULP2702, AMSULP2800, AMSULP2801, AMSULP2802, AMSULP2900, AMSULP3000, AMSULP3001, AMSULP3002, AMSULP3003, AMSULP3004, AMSULP3100, AMSULP3101, AMSULP3200, AMSULP3300, AMSULP3400, AMSULP3500, AMSULP3501, AMSULP4000, AMSULP4500, AMSULP4501, AMSULP4600, AMSULP4700, AMSULP4800, AMSULP5000, AMSULP5100, AMSULP5200, AMSULP5300, AMSULP5400, AMSULP6000, AMSULP6001, AMSULP6100, AMSULP6300, AMSULP6500, AMSULP6600, AMSULP6800, AMSULP6900, AMSULP7000, AMSULP7300, AMSULP7400, AMSULP7500, AMSULP7600, AMSULP7700, AMSULP7701, AMSULP7800, AMSULP8000, AMSULP8001, AMSULP8100, AMSULP8500, AMSULP8600, AMSULP8700, AMSULP9000, AMSULP9500, AMSULP9501, AMSULP9502, AMSULP9503, AMSULP9600, AMSULP9700, AMSULP9800, AMSULP9900, AMSULP3900, AMSULP7501, AMSULP3505, AMSULG2605, AMSULG3405, AMSULG1044, AMSULG1042, AMSULG1046, AMSULP3405, AMSULP1146, AMSULP3507, AMSULP1148, AMSULG0701, AMSULP1801, AMSULP1802, AMSULP1803, AMSULP1804, AMSULP1805, AMSULP1806, AMSULP1807, AMSULP1808, AMSULP1809, AMSULP1810, AMSULP1811, AMSULP1812, AMSULP1813, AMSULP1814, AMSULP1815, AMSULP1816, AMSULP1817, AMSULP1818, AMSULP1819, AMSULP1820, AMSULP3510, AMSULP3515, AMSULG0098, AMSULP1055, AMSULP1060, AMSULP1062, AMSULG1062, AMSULP3506, AMSULP1144, AMSULP1142, AMSULG0003, AMSULG0005, AMSULG0001, AMSULP0001, AMSULP0003, AMSULP0005, AMSULG1017, AMSULG0015, AMSULP1053, AMSULP3508, AMSULG6015, AMSULP3517, AMSULP3509, AMSULP3525, AMSULP3504, AMSULP1125, AMSULG0020, AMSULP1147, AMSULP1054, AMSULB0005, AMSULP1127, AMSULP7505, AMSULP1126, AMSULP0042, AMSULP1140, AMSULP1250, AMSULG1020, AMSULP0090, AMSULP1253, AMSULP1256, AMSULP0093, AMSULP0096, AMSULP0043, AMSULP0099, AMSULP0091, AMSULP1149, AMSULP0097, AMSULG1023, AMSULP0098, AMSULP1151, AMSULP1153, AMSULP1155, AMSULP0007, AMSULP1159, AMSULP0094, AMSULP0020, AMSULG0007, AMSULP0088, AMSULP1156, AMSULG0030, AMSULP1169, AMSULP0050, AMSULG1021, AMSULP1132, AMSULP0089, AMSULP1170, AMSULP0601, AMSULP0603, AMSULP2010, AMSULP2020, AMSULG2020, AMSULP0095

**Revision**

2

**Revision Date**

13 Apr 2013

**Key/Legend**

< Less Than

> Greater Than

**AICS** Australian Inventory of Chemical Substances

**atm** Atmosphere

**CAS** Chemical Abstracts Service (Registry Number)

**cm<sup>2</sup>** Square Centimetres

**CO<sub>2</sub>** 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/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

**inH<sub>2</sub>O** Inch of Water

**K** Kelvin

**kg** Kilogram

**kg/m<sup>3</sup>** Kilograms per Cubic Metre

**lb** Pound

**LC<sub>50</sub>** LC stands for lethal concentration. LC<sub>50</sub> 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.

**LD<sub>50</sub>** LD stands for Lethal Dose. LD<sub>50</sub> 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<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

**mmH<sub>2</sub>O** 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