

1. IDENTIFICATION

Product Name	Ammonium Chloride	
Other Names	Amchlor, Ammoneric; Ammonium muriate; Salmiac, Sal ammoniac	
Uses	Industrial use.	
Chemical Family	No Data Available	
Chemical Formula	(NH4)Cl	
Chemical Name	Ammonium chloride	
Product Description	No Data Available	

Contact Details of the Supplier of this Safety Data Sheet

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

Emergency Contact Details

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

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

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust)

Not Scheduled

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

Form 21047, Revision 3, Page 1 of 11, 01-Feb-2024 02:03:51

Phone +61 2 9733 3000 +61 2 9733 3111 Fax E-mail sydney@redox.com Web www.redox.com ABN 92 000 762 345

Australia Adelaide Auckland Brisbane Melbourne Perth UK London Sydney

New Zealand Malaysia Kuala Lumpur Christchurch USA Los Angeles Hawke's Bay Oakland Mexico Saltillo



Globally Harmonised Syste	em		
Hazard Classification Hazardous according to Chemicals (GHS)		5	o the criteria of the Globally Harmonised System of Classification and Labelling of
Hazard Categories		Acute Toxicity (Oral) - C	ategory 4
		Serious Eye Damage/Irr	ritation - Category 2A
Pictograms			
Signal Word		Warning	
Hazard Statements		H302	Harmful if swallowed.
		H319	Causes serious eye irritation.
Precautionary Statements	Prevention	P280	Wear eye protection/face protection.
		P270	Do not eat, drink or smoke when using this product.
		P264	Wash hands thoroughly after handling.
	Response	P337 + P313	If eye irritation persists: Get medical advice.
		P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
		P330	Rinse mouth.
		P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	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	NOT 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
Ammonium chloride	(NH4)CI	12125-02-9	99 - 100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure		
Swallowed	IF SWALLOWED: Rinse mouth, then drink plenty of water. Do not induce vomiting. Call a Poison Centre or doctor/physician if you feel unwell. If vomiting occurs, lean patient forward or place on the left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Never give anything by mouth to an unconscious person.	
Еуе	IF IN EYES: Do not rub affected area! Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention.	
Skin	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs, get medical advice/attention.	
Inhaled	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.	
Advice to Doctor	Treat symptomatically.	
Medical Conditions Aggravated by Exposure	No information available.	

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, move undamaged containers from fire area. Cool containers with flooding quantities of water until well after fire is out.
Flammability Conditions	Non-combustible; Material does not burn.
Extinguishing Media	If material is involved in a fire, use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction.
Fire and Explosion Hazard	Gives off irritating or toxic fumes (or gases) in a fire.
Hazardous Products of Combustion	Fire or heat will produce irritating, corrosive and/or toxic gases, including Nitrogen oxides, ammonia, Hydrogen chloride.
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	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	Ensure adequate ventilation. Do not touch or walk through spilled material. Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing.
Clean Up Procedures	Sweep up and shovel. Keep in suitable, closed containers 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	Wash away remainder with plenty of water.
Environmental Precautionary Measures	Discharge into the environment must be avoided. Do not let product enter drains.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away.
Personal Precautionary Measures	Use personal protective equipment as required (see SECTION 8).

7. HANDLING AND STORAGE	
Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Avoid formation of dust and aerosols. Avoid breathing dust/aerosols and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Take action to prevent static discharge.
Storage	Store in a cool, dry and well-ventilated place. Keep container tightly closed when not in use. Hygroscopic - Protect from moisture. Keep away from incompatible materials (see SECTION 10).
Container	Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	For Ammonium chloride (fume): - Safe Work Australia Exposure Standard: TWA = 10 mg/m3; STEL = 20 mg/m3. - New Zealand WES: TWA = 10 mg/m3; STEL = 20 mg/m3. - OSHA PEL/NIOSH REL: TWA = 10 mg/m3; STEL = 20 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	 Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Dust mask/respirator (refer to AS/NZS 1715 & 1716). Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses or goggles. Hand protection: Handle with gloves. Recommended: Impervious gloves. Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Overalls, boots.
Special Hazards Precaustions	No information available.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. Wash hands before breaks and at the end of workday. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Crystalline powder, granules
Odour	Odourless
Colour	White
рН	4.0 - 5.8 (200 g/L @ 25°C)
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	Decomposes
Melting Point	338 °C (decomposes)
Freezing Point	No Data Available
Solubility	Soluble in water
Specific Gravity	1.53
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	1.53 g/cm3
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	Hygroscopic.
Potential for Dust Explosion	No information available.
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; Material does not burn.
Reactions That Release Gases or Vapours	Fire or heat will produce irritating, corrosive and/or toxic gases, including Nitrogen oxides, ammonia, Hydrogen chloride.
Release of Invisible Flammable Vapours and Gases	Reacts violently with ammonium nitrate and potassium chlorate causing fire and explosion hazard.

10. STABILITY AND REACTIVITY

General Information	The solution in water is a weak acid. Reacts violently with ammonium nitrate and potassium chlorate. This generates fire and explosion hazard.
Chemical Stability	Stable under recommended storage conditions.
Conditions to Avoid	To avoid thermal decomposition, do not overheat. Protect from moisture.
Materials to Avoid	Incompatible/reactive with strong acids, strong bases, strong oxidizing agents, nitrites, nitrate compounds. Attacks copper and its compounds.
Hazardous Decomposition Products	Decomposes on heating. This produces toxic and irritating fumes (nitrogen oxides, ammonia and hydrogen chloride).
Hazardous Polymerisation	No information available.

11. TOXICOLOGICAL INFORMATION

General Information

- Acute toxicity: Harmful if swallowed. Signs of toxicity reported in humans (at large doses) include nausea, vomiting, thirst, headaches, hyperventilation, progressive drowsiness, metabolic acidosis (the build-up of acid and hydrogen ions in

the body) and hypokalaemia (potassium deficiency) [NICNAS].

- Skin corrosion/irritation: May cause skin irritation. Ammonium chloride was reported to not be irritating to the skin (Rabbits, 24 h) [NICNAS].

- Eye damage/irritation: Causes serious eye irritation.
- Respiratory/skin sensitisation: Ammonium chloride was not found to be sensitising to the skin (GPMT).

- Germ cell mutagenicity: The weight of evidence across the available studies indicates that Ammonium chloride is not genotoxic [NICNAS].

- Carcinogenicity: Ammonium chloride is not expected to be a carcinogen [NICNAS].
- Reproductive toxicity: Ammonium chloride is not expected to be a reproductive or developmental toxin [NICNAS].
- STOT (single exposure): Inhalation of dust or fume may cause respiratory irritation.
- STOT (repeated exposure): No information available.
- Aspiration toxicity: No information available.

Acute

Ingestion

- LD50, Rat: 1,410 mg/kg [Supplier's SDS].

Acute toxicity (Oral):

None

Carcinogen Category

12. ECOLOGICAL INFORMATION

Ecotoxicity	Aquatic toxicity: - LC50, Fish (Oncorhynchus mykiss): 42.91 mg/L (96 h) [Supplier's SDS]. - EC50, Invertebrates (Ceriodaphnia acanthina): 98.5 mg/L (48 h) [Supplier's SDS]. *The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.
Persistence/Degradability	Inorganic product which cannot be eliminated from water by biological purification processes. Can be oxidized to nitrate, or reduced to nitrogen, by microorganisms.
Mobility	Adsorption to solid soil phase is possible.
Environmental Fate	Prevent entry into drains and waterways.
Bioaccumulation Potential	Accumulation in organisms is not to be expected.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container in accordance with local/regional/national regulations. The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing.
Special Precautions for Land Fill	Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. TRANSPORT INFORMATION

Land Transport (Australia) ADG Code		
Proper Shipping Name	Ammonium Chloride	
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 (Malaysia) ADR Code	
Proper Shipping Name	Ammonium Chloride
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.
Land Transport (Mexico) NOMs	
Proper Shipping Name	Ammonium Chloride
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	Ammonium Chloride
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	Ammonium Chloride
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	Ammonium Chloride
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
EMS	No Data Available
Marine Pollutant	No
Comments	NON-DANGEROUS GOODS: Not regulated for SEA transport.
Air Transport IATA DGR	
Proper Shipping Name	Ammonium Chloride
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for AIR transport.

National Transport Commission (Australia)

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

 Dangerous Goods Classification
 NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods

 by Road & Rail (ADG Code)
 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

HSR002503 - Additives Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2020

National/Regional Inventories

Australia (AIIC)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	235-186-4
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	AMCHLF1000, AMCHLF1001, AMCHLF1002, AMCHLF1003, AMCHLF1004, AMCHLF2000, AMCHLF3000, AMCHLF3010, AMCHLF4000, AMCHLF5000, AMCHLF5100, AMCHLF6000, AMCHLF6003, AMCHLF6004, AMCHLF6100, AMCHLF6200, AMCHLF6201, AMCHLF6500, AMCHLO200, AMCHLO0300, AMCHLO0400, AMCHLO0401, AMCHLO0500, AMCHLO0501, AMCHLO1003, AMCHLO1000, AMCHLO1000, AMCHLO1000, AMCHLO1001, AMCHLO1002, AMCHLO1003, AMCHLO1004, AMCHLO1005, AMCHLO1009, AMCHLO1007, AMCHLO1008, AMCHLO1009, AMCHLO1009, AMCHLO1001, AMCHLO1011, AMCHLO1012, AMCHLO1012, AMCHLO1013, AMCHLO1014, AMCHLO1015, AMCHLO1007, AMCHLO1007, AMCHLO1017, AMCHLO1019, AMCHLO1020, AMCHLO1020, AMCHLO1021, AMCHLO1022, AMCHLO1023, AMCHLO1024, AMCHLO1025, AMCHLO1026, AMCHLO1027, AMCHLO1028, AMCHLO1029, AMCHLO1030, AMCHLO1031, AMCHLO1024, AMCHLO1025, AMCHLO1026, AMCHLO1039, AMCHLO1020, AMCHLO1029, AMCHLO1030, AMCHLO1031, AMCHLO1035, AMCHLO1036, AMCHLO1038, AMCHLO1039, AMCHLO1040, AMCHLO1020, AMCHLO1044, AMCHLO1045, AMCHLO1035, AMCHLO1036, AMCHLO1038, AMCHLO1039, AMCHLO10101, AMCHLO1020, AMCHLO1020, AMCHLO10120, AMCHLO1030, AMCHLO1044, AMCHLO1045, AMCHLO1000, AMCHLO1010, AMCHLO1009, AMCHLO1009, AMCHLO1009, AMCHLO1009, AMCHLO1009, AMCHLO1009, AMCHLO1009, AMCHLO1009, AMCHLO1000, AMCHLO10101, AMCHLO1000, AMCHLO1000, AMCHLO1000, AMCHLO10101, AMCHLO1000, AMCHLO10100, AMCHLO10101, AMCHLO1000, AMCHLO10100, AMCHLO10100, AMCHLO10100, AMCHLO10100, AMCHLO10100, AMCHLO10100, AMCHLO10100, AMCHLO10100, AMCHLO10101, AMCHLO10101, AMCHLO10101, AMCHLO10101, AMCHLO10100, AMCHLO10100, AMCHLO10101, AMCHLO10100, AMCHLO10101, AMCHLO10100, AMCHLO2000, AMCHLO
	AMCHL02505, AMCHL02506, AMCHL02600, AMCHL02700, AMCHL02800, AMCHL02900, AMCHL03000, AMCHL03001, AMCHL03010, AMCHL03100, AMCHL03200, AMCHL03300, AMCHL03400, AMCHL03500, AMCHL03501, AMCHL03502, AMCHL03600, AMCHL03700, AMCHL03800, AMCHL03900, AMCHL04000, AMCHL04001, AMCHL04002, AMCHL04003, AMCHL04004, AMCHL04005, AMCHL04100, AMCHL04101, AMCHL04102,

AMCHLO4200, AMCHLO4201, AMCHLO4202, AMCHLO4210, AMCHLO4250, AMCHLO4255, AMCHLO4256, AMCHL04257, AMCHL04258, AMCHL04259, AMCHL04300, AMCHL04301, AMCHL04302, AMCHL04303, AMCHL04304, AMCHL04305, AMCHL04306, AMCHL04307, AMCHL04308, AMCHL04310, AMCHL04311, AMCHL04313, AMCHLO4400, AMCHLO4500, AMCHLO4501, AMCHLO4502, AMCHLO4503, AMCHLO4504, AMCHLO4600, AMCHLO4700, AMCHLO4800, AMCHLO4900, AMCHLO5000, AMCHLO5001, AMCHLO5100, AMCHLO5200, AMCHL05300, AMCHL05400, AMCHL05500, AMCHL05501, AMCHL05600, AMCHL05700, AMCHL05800, AMCHLO5900, AMCHLO6000, AMCHLO6001, AMCHLO6002, AMCHLO6003, AMCHLO6004, AMCHLO6010, AMCHLO6020, AMCHLO6040, AMCHLO6050, AMCHLO6100, AMCHLO6101, AMCHLO6200, AMCHLO6210, AMCHL06300, AMCHL06500, AMCHL06600, AMCHL06700, AMCHL06701, AMCHL06710, AMCHL06711, AMCHL07001, AMCHL08000, AMCHL09000, AMCHL09001, AMCHL09100, AMCHL09101, AMCHL09102, AMCHL09103, AMCHL09104, AMCHLO9105, AMCHLO9200, AMCHLO9201, AMCHLO9202, AMCHLO9203, AMCHLO9204, AMCHLO9205, AMCHLO9300, AMCHLO9301, AMCHLO9302, AMCHLO9303, AMCHLO9400, AMCHLO9500, AMCHLO9501, AMCHL09502, AMCHL09504, AMCHL09532, AMCHL09550, AMCHL09552, AMCHL09553, AMCHL09600, AMCHL09602, AMCHL09603, AMCHL09604, AMCHL09605, AMCHL09607, AMCHL09608, AMCHL09650, AMCHLO9700, AMCHLO9701, AMCHLO9705, AMCHLO9800, AMCHLO9900, AMCHLO9901, AMCHLO9902, AMCHLO9903, AMCHLO9904, AMCHLO9905, AMCHLO9906, AMCHLO9907, AMCHLO9908, AMCHLO9909, AMCHLO9910, AMCHLO9911, AMCHLO9912

Revision Revision Date Key/Legend

4 15 Jul 2019 < 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/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/m³ 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 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 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

pb Parts per Billion
ppm Parts per Million per 2 Hours
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