

1. IDENTIFICATION

Product Name	Sodium Hypochlorite Solution 10-30%
Other Names	Clorox
Uses	Water treatment; Sanitising agent; Bleaching agent; Disinfectant; Oxidising agent.
Chemical Family	No Data Available
Chemical Formula	Unspecified
Chemical Name	Sodium hypochlorite, aqueous solution
Product Description	Available chlorine = 10 - 15%.

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)

Schedule 6

Redox Ltd Corporate Office Sydney Locked Bag 15 Minto NSW 2566 Australia 2 Swettenham Road Minto NSW 2566 Australia

2 Swettennam Road Minto NSW 2566 Australia All Deliveries: 4 Holmes Road Minto NSW 2566 Australia

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Globally Harmonised System

Hazard Classification		Hazardous according to Chemicals (GHS)	o the criteria of the Globally Harmonised System of Classification and Labelling of	
Hazard Categories		Skin Corrosion/Irritation - Category 1B		
		Serious Eye Damage/Irr	itation - Category 1	
		Specific Target Organ Toxicity (Single Exposure) - Category 3		
		Acute Hazard To The Aquatic Environment - Category 1		
		Long-term Hazard To TI	he Aquatic Environment - Category 1	
Pictograms			!	
Signal Word		Danger		
Hazard Statements		H314	Causes severe skin burns and eye damage.	
		H335	May cause respiratory irritation.	
		H410	Very toxic to aquatic life with long lasting effects.	
		AUH031	Contact with acids liberates toxic gas	
Precautionary Statements	Prevention	P260	Do not breathe mist/vapour/spray.	
		P280	Wear protective gloves/protective clothing/eye protection/face protection.	
		P273	Avoid release to the environment.	
		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	P403 + P233	Store in a well-ventilated place. Keep container tightly closed.	
		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)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Sodium hypochlorite	CIHO.Na	7681-52-9	10 - <30 %
Sodium hydroxide	HNaO	1310-73-2	<1 %
Water	H2O	7732-18-5	Balance %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth, then drink (slowly) 1 - 2 glasses of water. Do NOT induce vomiting. Immediately call a Poison Centre or doctor/physician for advice. Urgent hospital treatment is likely to be needed. 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. Immediately call a Poison Centre or doctor/physician for advice. Remove contact lenses if present and easy to do. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay.
Skin	IF ON SKIN (or hair): Remove contaminated clothing and shoes immediately. Flush skin and hair with running water for 20 - 30 minutes. Immediately call a Poison Centre or doctor/physician for advice. In case of gross contamination, drench contaminated clothing and skin with plenty of water before removing clothes. For minor skin contact, avoid spreading material on unaffected skin. Transport to hospital or doctor without delay.
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. Apply resuscitation if victim is not breathing - Do not use direct mouth-to-mouth method if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device; Administer oxygen if breathing is difficult. Transport to hospital or doctor without delay.
Advice to Doctor	Keep victim calm and warm - Obtain immediate medical care. Alkalis continue to cause damage after exposure. Reaction may be delayed up to 24 hours after exposure; affected individuals need complete rest and must be kept under medical observation even if no symptoms are (yet) manifested. Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.
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. If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out. Avoid getting water inside containers.
Flammability Conditions	Non-combustible; Material itself does not burn.
Extinguishing Media	If material is involved in a fire, use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction - Do not use water jets.
Fire and Explosion Hazard	Decomposes on heating, emitting toxic fumes. Containers may explode when heated.
Hazardous Products of Combustion	Fire or heat will produce irritating, toxic and/or corrosive gases, including Chlorine, Hydrogen chloride.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may be toxic and/or corrosive and pollute waterways.
Personal Protective Equipment	Liquid-tight chemical protective clothing (splash suit) in combination with self-contained breathing apparatus (SCBA) should be used. Fully-encapsulating, gas-tight suits should be worn for maximum protection. Structural firefighter's uniform is NOT effective for this material.
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. Do not touch or walk through spilled material. Slippery when spilt. Avoid accidents, clean up immediately. Do not breathe vapours and prevent contact with eyes, skin and clothing.
Clean Up Procedures	Absorb 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 safe to do so – Prevent entry into waterways, drains or confined areas. Cover with dry earth, sand or other non-combustible material followed by plastic sheet to minimise spreading.
Decontamination	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	Small spillages and decontamination run-off may be washed to drains with large quantities of water. Due care must however still be exercised to avoid unnecessary pollution of watercourses.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher ground. Large spill: Alert Fire Brigade and tell them location and nature of hazard; Consider downwind evacuation.
Personal Precautionary Measures	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (see SECTION 8). Large spill: Wear SCBA and chemical splash suit. Fully-encapsulating, gas-tight suits should be worn for maximum protection.

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. Do not breathe mist/vapours/spray and prevent contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection (see SECTION 8). Avoid overheating (decomposition). Keep away from sources of ignition - No smoking. Absorb spillage to prevent material damage (see SECTION 6). *Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous.
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep containers securely sealed. Check regularly for spills and leaks. Keep away from heat and sources of ignition - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10). Store locked up.
Container	Keep only in the original container or corrosive resistant container/container with a resistant inner liner.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No value assigned for this specific material by Safe Work Australia. HAZARDOUS COMPONENT: Sodium hydroxide (CAS No. 1310-73-2): - Safe Work Australia Exposure Standard: TWA = 2 mg/m3 Peak limitation. DECOMPOSITION PRODUCT: Chlorine (CAS No. 7782-50-5): - Safe Work Australia Exposure Standard: TWA = 1 ppm (3 mg/m3) Peak limitation.
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: Wear Type B-P Filter of sufficient capacity or an air supplied respirator (refer to AS/NZS 1715 & 1716).

	 Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Chemical goggles, face shield. Hand protection: Wear protective gloves. Recommended: Elbow-length impervious gloves, e.g. PVC. Skin/body protection: Wear appropriate personal protective clothing to prevent skin contact. Recommended: Overalls, PVC splash apron, or equivalent chemical impervious outer garment, and rubber boots.
Special Hazards Precaustions	Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material. 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.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. Do NOT allow clothing wet with material to stay in contact with skin. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Clear liquid
Odour	Chlorine
Colour	Pale yellow - green
рН	>11.5 (as supplied)
Vapour Pressure	2.3 kPa (@ No Data Available)
Relative Vapour Density	No Data Available
Boiling Point	>100 °C
Melting Point	No Data Available
Freezing Point	-25 °C
Solubility	Miscible in water
Specific Gravity	1.17 - 1.22 (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	80 - 95 % (vol.)
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; Material itself does not burn.
Reactions That Release Gases or Vapours	Fire or heat will produce irritating, toxic and/or corrosive gases, including Chlorine, Hydrogen chloride.
Release of Invisible Flammable Vapours and Gases	Contact with metals may evolve flammable hydrogen gas.

10. STABILITY AND REACTIVITY

General Information	Contact with acids liberates toxic gas. Reacts exothermically with acids. Reacts with ammonia, amines or ammonium salts to produce chloramines. Decomposes on heating to produce chlorine gas.
Chemical Stability	Stable under normal ambient and anticipated storage and handling conditions; Unstable in the presence of incompatible materials. *The amount of available chlorine diminishes over time.
Conditions to Avoid	Keep away from heat and sources of ignition. Avoid exposure to light. Avoid contact with other chemicals.
Materials to Avoid	Incompatible/reactive with acids, metals, metal salts, peroxides, reducing agents, ethylene diamine tetraacetic acid, methanol, aziridine, urea, ammonia and ammonium compounds, such as amines and ammonium salts.
Hazardous Decomposition Products	Fire or heat will produce irritating, toxic and/or corrosive gases, including Chlorine, Hydrogen chloride.
Hazardous Polymerisation	Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	 Acute toxicity: Corrosive following ingestion. Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract. Skin corrosion/irritation: Corrosive; Causes severe skin burns. Skin contact will result in rapid drying, bleaching; leading to chemical burns on prolonged contact. Eye damage/irritation: Corrosive; Causes serious eye damage. Contact can cause corneal burns and result in permanent injury. Vapours or mists may be extremely irritating. Respiratory/skin sensitisation: No information available. Germ cell mutagenicity: No information available. Carcinogenicity: Hypochlorite salts are classified by the IARC Monographs as "Not classifiable as to its carcinogenicity to humans" (Group 3). Reproductive toxicity: No information available. STOT (single exposure): Breathing in mists or aerosols will produce respiratory irritation. Chlorine vapour is extremely irritating to the upper respiratory tract and lungs. Symptoms of exposure to chlorine include coughing, choking, breathing difficulty, chest pain, headache, vomiting, pulmonary oedema. Inhalation may cause lung congestion, bronchitis and loss of consciousness. Delayed (up to 48 hours) fluid build up in the lungs may occur. STOT (repeated exposure): No information available.
Acute	
Ingestion	Acute toxicity (Oral): COMPONENT: Sodium hypochlorite: - LD50, Rat: >237 mg/kg [Supplier's SDS].
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Aquatic toxicity: COMPONENT: Sodium hypochlorite: - LC50, Fish: 0.032 mg/L (96 h).
Persistence/Degradability	This material is biodegradable.
Mobility	No information available.
Environmental Fate	Very toxic to aquatic life with long lasting effects - Avoid release to the environment.
Bioaccumulation Potential	Does not bioaccumulate.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Recycle wherever possible, or dispose of through a licensed waste contractor and in accordance with local/regional/national regulations.
Special Precautions for Land Fill	Containers may still present a chemical hazard/danger when empty. Decontamination and destruction of containers should be considered.

14. TRANSPORT INFORMATION

Land Transport (Australia) ADG Code	
Proper Shipping Name	HYPOCHLORITE SOLUTION
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	37 Toxic And/Or Corrosive Substances Non-Combustible
UN Number	1791
Hazchem	2X
Pack Group	III
Special Provision	No Data Available
Land Transport (Malaysia) ADR Code	
Proper Shipping Name	HYPOCHLORITE SOLUTION
Class	
	8 Corrosive Substances
Subsidiary Risk(s)	8 Corrosive Substances No Data Available
Subsidiary Risk(s) EPG	
2	No Data Available
EPG	No Data Available 37 Toxic And/Or Corrosive Substances Non-Combustible
EPG UN Number	No Data Available 37 Toxic And/Or Corrosive Substances Non-Combustible 1791

Land Transport (New Zealand) NZS5433

Proper Shipping Name	HYPOCHLORITE SOLUTION
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	37 Toxic And/Or Corrosive Substances Non-Combustible
UN Number	1791
Hazchem	2X
Pack Group	Ш
Special Provision	No Data Available

Land Transport (United States of America) US DOT

Proper Shipping Name	HYPOCHLORITE SOLUTION
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
ERG	154 Substances - Toxic and/or Corrosive (Non-Combustible)
UN Number	1791
Hazchem	2X
Pack Group	III
Special Provision	No Data Available
Sea Transport IMDG Code	
Proper Shipping Name	HYPOCHLORITE SOLUTION
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
UN Number	1791
Hazchem	2X
Pack Group	III
Special Provision	No Data Available
EMS	F-A, S-B
Marine Pollutant	Yes
Air Transport IATA DGR	
Proper Shipping Name	HYPOCHLORITE SOLUTION
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
UN Number	1791
Hazchem	2X
Pack Group	III

National Transport Commission (Australia)

Special Provision

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

No Data Available

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	No Data Available
Poisons Schedule (Aust)	Schedule 6
Environmental Protection Authority (New Zealand) Hazardous Substances and New Organisms Amendment Act 2015	
Approval Code	Not Assessed
National/Regional Inventories	
Australia (AIIC)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	231-668-3
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 CodesSOHYCB1000, SOHYCB1001, SOHYCB2000, SOHYCC1000, SOHYCC2000, SOHYCC3000, SOHYCC3001, SOHYCC3000,
SOHYCC7000, SOHYCC7100, SOHYCC9000, SOHYCC9500, SOHYCL2003, SOHYCL1000, SOHYCL1001, SOHYCL1002,
SOHYCL1003, SOHYCL1004, SOHYCL1005, SOHYCL1006, SOHYCL1007, SOHYCL1008, SOHYCL1009, SOHYCL1010,
SOHYCL1011, SOHYCL1012, SOHYCL1013, SOHYCL1014, SOHYCL1006, SOHYCL1007, SOHYCL1200, SOHYCL1210, SOHYCL1011,
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SOHYCL1300, SOHYCL1300, SOHYCL1400, SOHYCL1500, SOHYCL1600, SOHYCL1700, SOHYCL1801, SOHYCL1802,

SOHYCL1803, SOHYCL1804, SOHYCL1805, SOHYCL1806, SOHYCL1807, SOHYCL1808, SOHYCL1809, SOHYCL1810, SOHYCL1811, SOHYCL1812, SOHYCL1813, SOHYCL1814, SOHYCL1815, SOHYCL1816, SOHYCL1817, SOHYCL1818, SOHYCL1819, SOHYCL1820, SOHYCL1821, SOHYCL1822, SOHYCL1823, SOHYCL1824, SOHYCL1825, SOHYCL1826, SOHYCL1827, SOHYCL1828, SOHYCL1829, SOHYCL1830, SOHYCL1831, SOHYCL1832, SOHYCL1833, SOHYCL1834, SOHYCL1835, SOHYCL1836, SOHYCL1837, SOHYCL1838, SOHYCL1839, SOHYCL1840, SOHYCL1841, SOHYCL1842, SOHYCL1843, SOHYCL1844, SOHYCL1845, SOHYCL1846, SOHYCL1847, SOHYCL1848, SOHYCL1849, SOHYCL1850, SOHYCL1851, SOHYCL1852, SOHYCL1853, SOHYCL1854, SOHYCL1855, SOHYCL1856, SOHYCL1857, SOHYCL1858, SOHYCL1859, SOHYCL1860, SOHYCL1861, SOHYCL1862, SOHYCL1863, SOHYCL1864, SOHYCL1865, SOHYCL1866, SOHYCL1867, SOHYCL1868, SOHYCL1869, SOHYCL1870, SOHYCL1871, SOHYCL1872, SOHYCL1873, SOHYCL1874, SOHYCL1875, SOHYCL1876, SOHYCL1877, SOHYCL1878, SOHYCL1879, SOHYCL1880, SOHYCL1881, SOHYCL1882, SOHYCL1883, SOHYCL1884, SOHYCL1885, SOHYCL1886, SOHYCL1887, SOHYCL1888, SOHYCL1889, SOHYCL1890, SOHYCL1891, SOHYCL1892, SOHYCL1893, SOHYCL1894, SOHYCL1895, SOHYCL1896, SOHYCL1900, SOHYCL1912, SOHYCL1932, SOHYCL1938, SOHYCL1939, SOHYCL2000, SOHYCL2012, SOHYCL2015, SOHYCL2100, SOHYCL2150, SOHYCL2200, SOHYCL2300, SOHYCL2400, SOHYCL2500, SOHYCL2600, SOHYCL2700, SOHYCL2813, SOHYCL2913, SOHYCL3000, SOHYCL3200, SOHYCL3500, SOHYCL3600, SOHYCL3601, SOHYCL3700, SOHYCL3800, SOHYCL3801, SOHYCL4000, SOHYCL4100, SOHYCL4201, SOHYCL4400, SOHYCL5000, SOHYCL5100, SOHYCL6000, SOHYCL7000, SOHYCL7100, SOHYCL7200, SOHYCL7500, SOHYCL8000, SOHYCL8100, SOHYCL9000, SOHYCL9100, SOHYCL9500

Revision Revision Date Reason for Issue Key/Legend

4 18 Sep 2019 SDS Updated < 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 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