1. IDENTIFICATION

Product Name	**Sodium Silicate Solution**
Other Names	No Data Available
Uses	May be used as a detergent ingredient, adhesive, binder, feedstock silica source, general chemical.
Chemical Family	No Data Available
Chemical Formula	Chemical Formula Varying proportions of sodium oxide, silica and water depending on the grade. Mean weight ratio for SiO2/Na2O: is from 2.0 to 3.3
Chemical Name	Sodium Silicate Solution
Product Description	Emergency Overview: Clear to hazy, colorless, odorless, thick liquid. Causes eye, skin, and digestive tract irritation. Spray mist causes irritation to respiratory tract. Spills are slippery. High pH is harmful to aquatic life. Reacts with acids, ammonium salts, reactive metals and some organics. Noncombustible, but flammable hydrogen gas may be produced on prolonged contact with metals such as aluminium, tin, lead, and zinc.

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
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.	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)	5

Globally Harmonised System

Hazard Classification	Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
Hazard Categories	Skin Corrosion/Irritation - Category 2 Serious Eye Damage/Irritation - Category 2A Acute Toxicity (Oral) - Category 4
Pictograms	
Signal Word	Warning

Hazard Statements		**H302**	Harmful if swallowed.
		H315	Causes skin irritation.
		H319	Causes serious eye irritation.
Precautionary Statements	Prevention	**P264**	Wash contacted areas thoroughly after handling.
		P270	Do not eat, drink or smoke when using this product.
		P280	Wear protective gloves/protective clothing/eye protection/face protection.
	Response	**P301 + P312**	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
		P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
		P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P321	Specific treatment (see First Aid Measures on Safety Data Sheet).
		P330	Rinse mouth.
		P332 + P313	If skin irritation occurs: Get medical advice/attention.
		P337 + P313	If eye irritation persists: Get medical advice/attention.
		P362	Take off contaminated clothing and wash before reuse.
	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)

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
		8.2C	Substances that are corrosive to dermal tissue UN PGIII
		8.3A	Substances that are corrosive to ocular tissue
	Environmental Hazards	**9.3C**	Substances that are harmful to terrestrial vertebrates

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Sodium Silicate	No Data Available	1344-09-8	30.0 - 60.0 %
Water	No Data Available	7732-18-5	30.0 - 60.0 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed Immediately rinse mouth with water. Repeat until product is thoroughly removed. Give water to drink. DO NOT induce vomiting due to risk of further damage. If vomiting occurs give water to drink to further dilute the product. Get medical attention. Contact the Poisons Information Centre (available in each State capital city).

Eye Immediately rinse with plenty of water for at least 15 minutes. Eyelids to be held open. Urgently get medical assistance. Transport to hospital or medical centre.

Skin Immediately wash contaminated skin with plenty of water. Soaked clothing should be removed while under the safety shower and skin washed with running water for a minimum of 30 minutes. No attempt should be made to neutralize the alkali with acid solutions, as this could aggravate the burns. Get medical attention if health effects develop or persist.

Inhaled If inhaled and adverse effects occur, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Center or seek medical attention if you feel unwell.

Advice to Doctor Treat as a corrosive substance. Treat symptoms with supportive care. There is no specific antidote.
The absence of visible signs or symptoms of burns does NOT reliably exclude the presence of actual tissue damage. It may take 48-72 hours to assess the extent of an ocular burn. Probable mucosal damage may contraindicate the use of gastric lavage.

Medical Conditions Aggravated by Exposure May aggravate pre existing conditions such as:. Eye disorders that decrease tear production or have reduced integrity. Skin disorders that compromise the integrity of the skin such as:
psoriasis, rashes, eczema, skin infections. Pulmonary disorders that compromise the integrity of the lungs such as asthma.

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 Product is a non-flammable liquid.

Extinguishing Media Compatible with dry chemical water spray, regular foam and carbon dioxide fire extinguishing media.

Fire and Explosion Hazard Non combustible liquid. Aqueous solution, not flammable under normal conditions of use. Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminium, tin, lead, and zinc.

Hazardous Products of Combustion Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminium, tin, lead, and zinc.

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

Personal Protective Equipment 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).

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	Avoid accidents, clean up immediately. 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.Spilled material is very slippery. Only water will evaporate from a spill of this material. Dries to form glass film which can easily cut skin. Sinks and mixes with water. High pH of this material is harmful to aquatic life.
Clean Up Procedures	Small spill cleanup: Mop up and neutralize liquid, then discharge to sewer in accordance with federal, state and local regulations or permits. Large spill cleanup: Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent runoff from entering into storm sewers and ditches which lead to natural waterways. Isolate, dike and store discharged material, if possible. Use sand or earth to contain spilled material.
Containment	Stop leak if safe to do so. Isolate the danger area.
Decontamination	If containment is impossible, neutralize contaminated area and flush with large quantities of water.
Environmental Precautionary Measures	Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management.
Evacuation Criteria	Evacuate all unnecessary personnel.
Personal Precautionary Measures	Personnel involved in the clean up should wear full protective clothing as listed in section 8.

7. HANDLING AND STORAGE

Handling	Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Keep container closed. Promptly clean residue from closures with cloth. Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Loading temperature 45-95 deg C. Use in well ventilated area. Avoid generating and inhaling mists. Avoid skin and eye contact. Avoid inhaling the vapour or mist. Follow normal industrial safety practices. The use of protective clothing and equipment depends on the degree and nature of exposure.
Storage	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. Store away from acids and foodstuffs. Store in clean steel or plastic containers. Separate from acids, reactive metals, and ammonium salts. Storage temperature 0-95 deg C. Loading temperature 45-95 deg C. Do not store in aluminium, fiberglass, copper, brass, zinc or galvanized containers. Mild steel is the most suitable material of construction for drums, tanks, valves, pipe-work, etc. Concrete storage tanks can be used but must be strong enough to hold the weight of Sodium Silicate solution to be stored and thick enough to prevent seepage of water. Mild steel is the most suitable material of construction for drums, tanks, valves, pipework, etc. Concrete storage tanks can be used but must be strong enough to hold the weight of Sodium Silicate solution to be stored and thick enough to prevent seepage of water. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.
Container	Store in original packaging as approved by manufacturer. Store in clean steel or plastic containers. Do not store in aluminium, fibreglass, copper, brass, zinc or galvanized containers. Mild steel is the most suitable material of construction for drums, tanks, valves, pipe-work, etc. Concrete storage tanks can be used but must be strong enough to hold the weight of Sodium Silicate solution to be stored and thick enough to prevent seepage of water. Mild steel is the most suitable material of construction for drums, tanks, valves, pipe-work, etc. Unsuitable Container Materials: Sodium Silicate solutions are strongly alkaline and are not compatible with aluminium, copper, brass, bronze, zinc, tin and lead. Can etch glass if not promptly removed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No exposure standard has been established for this product by the Australian Safety and Compensation Council (ASCC). Sodium Silicate : TWA 5mg/m3 (STEL 5mg/m3) This standard is the manufacturers recommended limit for good practice. All atmospheric contamination should be minimised.
Exposure Limits	No Data Available
Biological Limits	No information available on biological limit values for this product.
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. Use in well ventilated area. Avoid generating and inhaling mists.

Personal Protection Equipment	RESPIRATOR: Respiratory protection is not normally required due to low inhalation risk (AS1715/1716). EYES: Safety glasses, goggles or faceshield as appropriate (AS1336/1337). HANDS: Plastic or Rubber gloves (AS2161). CLOTHING: Overalls, splash apron or similar protective apparel and chemical resistant safety boots (AS3765/2210).
Work Hygienic Practices	Wash contaminated clothing and protective equipment before storing and re-using. The use of barrier cream is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Thick Liquid
Odour	Odourless
Colour	Clear to Hazy, Colourless
pH	11 - 13 of the concentrate
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	101 - 102 °C
Melting Point	approx. 0 °C
Freezing Point	-1 °C
Solubility	Soluble in water
Specific Gravity	1.2 - 1.7 Typical range
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	Water boils off at 105-108 deg C
Density	10.0 - 13.4 lbs/gal
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	20 - 1500 cp (@ No Data Available)
Volatile Percent	>50%
VOC Volume	No Data Available
Additional Characteristics	Chemical Formula: Varying proportions of sodium oxide, silica and water depending on the grade. Mean weight ratio for SiO2/Na2O: is from 2.0 to 3.3 Corrosiveness: Some corrosive effects on Aluminium, Copper, Tin, Zinc, Lead etc.
Potential for Dust Explosion	Product is a liquid.
Fast or Intensely Burning Characteristics	No Data Available
Flame Propagation or Burning Rate of Solid Materials	No Data Available
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No Data Available

Properties That May Initiate or Contribute to Fire Intensity	No Data Available
Reactions That Release Gases or Vapours	Non combustible liquid. The aqueous solution is not flammable under normal conditions of use. Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminium, tin, lead, and zinc.
Release of Invisible Flammable Vapours and Gases	No Data Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable in sealed containers. Absorbs Carbon Dioxide on exposure to air, which results in the deposition of Insoluble Silica.
Conditions to Avoid	Avoid leaving solutions exposed to carbon dioxide in the air. Prolonged storage above 140 °F (60 °C). Avoid static discharge, shock, or vibration.
Materials to Avoid	Can generate heat when mixed with acids. Avoid prolonged contact with alkali sensitive metals such as: aluminum, brass, bronze, copper, lead, tin, zinc because flammable hydrogen gas can be generated.
Hazardous Decomposition Products	If Overheated: The solution will boil and irritating Sodium Silicate containing mists will be released. Flammable hydrogen gas will form on reaction with aluminium, copper, zinc etc. Gels and generates heat when mixed with acid. May react with ammonium salts resulting in evolution of ammonia gas.
Hazardous Polymerisation	Will not occur.

11. TOXICOLOGICAL INFORMATION

General Information

Acute Oral Toxicity LD50 (rat): 1280 mg/kg (as 100%)
The acute oral toxicity of this product has not been tested. When Sodium Silicates were tested on a 100% solids basis, their single dose acute oral LD50 in rats ranged from 1280 mg/kg (above) to 3200 mg/kg. The acute oral lethality resulted from nonspecific causes. These products contain 30-60% Sodium Silicate thus each overall product has an Acute Oral Toxicity LD50 (rat): >2000 mg/kg.

Eye Irritation: Severe Irritant.
Produced corneal, iridal and conjunctival irritation.

Skin Irritation: Irritant.
When tested for primary skin irritation potential, this material produced irritation with a primary irritation index of 3 to abraded skin and 0 to intact skin.
Human experience confirms that irritation occurs when this material gets on clothes at the collar, cuffs or other areas where abrasion may occur.

Subchronic Data:
In a study of rats fed Sodium Silicate in drinking water for three months, at 200, 600 and 1800 ppm, changes were reported in the blood chemistry of some animals, but no specific changes to the organs of the animals due to Sodium Silicate administration were observed in any of the dosage groups. Another study reported adverse effects to the kidneys of dogs fed Sodium Silicate in their diet at 2.4g/kg/day for 4 weeks, whereas rats fed the same dosage did not develop any treatment-related effects. Decreased numbers of births and survival to weaning was reported for rats fed Sodium Silicate in their drinking water at 600 and 1200 ppm.

Special Studies:
Sodium Silicate was not mutagenic to the bacterium E. Coli when tested in a mutagenicity bioassay. There are no known reports of carcinogenicity of Sodium Silicates. Frequent ingestion over extended periods of time of gram quantities of silicates is associated with the formation kidney stones and other siliceous urinary calculi in humans. Sodium Silicate is not listed by IARC, NTP or OSHA as a carcinogen.

Chronic Health Effects: All Routes:
Prolonged or repeated skin contact may cause dry skin. Defatting of the skin can result in irritation and dermatitis (inflammation of the skin).

EyeIrritant	Causes serious eye irritation. Eye exposures may cause burns to the eye lids, conjunctivitis, corneal edema and corneal burn. Eye exposure may cause severe irritation, and pain. The full extent of the injury may not be immediately apparent.
Ingestion	Harmful if swallowed. Gastrointestinal System Effects: Exposure by ingestion may cause irritation, swelling, and perforation of upper and lower gastrointestinal tissues. Permanent scarring may occur.
Inhalation	Respiratory System Effects: Inhalation of this material may cause irritation, redness of upper and lower airways, coughing.

SkinIrritant	Skin Irritation. Skin exposure may cause irritation, redness, itching, swelling, burning sensation. Repeated and prolonged skin contact may cause a dermatitis.
Carcinogen Category	No Data Available

12. ECOLOGICAL INFORMATION

Ecotoxicity	The following data is reported for Sodium Silicates on a 100% solids basis: A 96 hour median tolerance for fish (Gambusia affnis) of 2320 ppm; a 96 hour median tolerance for water fleas (Daphnia magna) of 247 ppm; a 96 hour median tolerance for snail eggs (Lymnea) of 632 ppm; and a 96 hour median tolerance for Amphipoda of 160 ppm. These products contain 30-60% Sodium Silicate. High pH of this material is harmful to aquatic life.
Persistence/Degradability	This material is not persistent in aquatic systems, but its high pH when undiluted or unneutralized is acutely harmful to aquatic life. Diluted material rapidly depolymerizes to yield dissolved silica in a form that is indistinguishable from natural dissolved silica. It does not contribute to BOD.
Mobility	Expected to be mobile in soil. Diluted material rapidly depolymerizes to yield dissolved silica in a form that is indistinguishable from natural dissolved silica.
Environmental Fate	Do NOT let product reach waterways, drains and sewers.
Bioaccumulation Potential	This material does not bioaccumulate except in species that use silica as a structural material such as diatoms and siliceous sponges. Neither silica nor sodium will appreciably bioconcentrate up the food chain.
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. Normally suitable for disposal at approved land waste site after dilution or neutralisation. Landfill: After dilution or neutralisation may be landfilled. Incineration: Not suitable for incineration.

14. TRANSPORT INFORMATION

Land Transport (Australia)
ADG Code

Proper Shipping Name	SODIUM SILICATE SOLUTION
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	SODIUM SILICATE SOLUTION

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	SODIUM SILICATE SOLUTION
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	SODIUM SILICATE SOLUTION
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	SODIUM SILICATE SOLUTION
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	SODIUM SILICATE SOLUTION
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)

15. REGULATORY INFORMATION

General Information	No Data Available
Poisons Schedule (Aust)	5

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

Approval Code	HSR004696

National/Regional Inventories

Australia (AICS)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	Not Determined
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	RAWMAT1000, SODSIL1801, SODSIS0400, SODSIS0500, SODSIS0600, SODSIS0700, SODSIS0701, SODSIS1000, SODSIS1001, SODSIS1002, SODSIS1003, SODSIS1005, SODSIS1100, SODSIS1400, SODSIS2000, SODSIS4000, SODSIS4001, SODSIS4200, SODSIS4500, SODSIS4501, SODSIS5000, SODSIS5001, SODSIS5100, SODSIS5101, SODSIS5300, SODSIS5301, SODSIS5500, SODSIS6000, SODSIS6001, SODSIS6002, SODSIS6500, SODSIS8000
Revision	4
Revision Date	19 Mar 2015
Reason for Issue	sds updated
Key/Legend	**<** 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/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/m³** 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 **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 **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