

### 1. IDENTIFICATION

<b>Product Name</b>	<b>Sodium perborate, tetrahydrate</b>
<b>Other Names</b>	Sodium perborate [CAS#11138-47-9]
<b>Uses</b>	Bleaching component of washing and cleaning agents.
<b>Chemical Family</b>	No Data Available
<b>Chemical Formula</b>	NaBO <sub>3</sub> ·4H <sub>2</sub> O / NaBO <sub>2</sub> ·H <sub>2</sub> O <sub>2</sub> ·3H <sub>2</sub> O
<b>Chemical Name</b>	Perboric acid (HBO(O <sub>2</sub> )), sodium salt, tetrahydrate
<b>Product Description</b>	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

# SAFETY DATA SHEET SODIUM PERBORATE, TETRAHYDRATE REVISION 5, DATE 10 DEC 20

## Globally Harmonised System

**Hazard Classification** Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

**Hazard Categories** Serious Eye Damage/Irritation - Category 1  
 Toxic To Reproduction - Category 1B  
 Specific Target Organ Toxicity (Single Exposure) - Category 3

**Pictograms**



**Signal Word** Danger

**Hazard Statements**

<b>H318</b>	Causes serious eye damage.
<b>H360FD</b>	May damage the unborn child. Suspected of damaging fertility.
<b>H335</b>	May cause respiratory irritation.

<b>Precautionary Statements</b>	Prevention	<b>P201</b>	Obtain special instructions before use.
		<b>P261</b>	Avoid breathing dust.
		<b>P271</b>	Use only outdoors or in a well-ventilated area.
		<b>P280</b>	Wear protective gloves/protective clothing/eye protection/face protection.
	Response	<b>P305 + P351 + P338 + P310</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor.
		<b>P308 + P313</b>	IF exposed or concerned: Get medical advice/ attention.
		<b>P304 + P340</b>	IF INHALED: Remove victim to fresh air and keep comfortable for breathing.
	Storage	<b>P312</b>	Call a POISON CENTER or doctor if you feel unwell.
		<b>P403 + P233</b>	Store in a well-ventilated place. Keep container tightly closed.
	Disposal	<b>P405</b>	Store locked up.
<b>P501</b>		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

<b>HSNO Classifications</b>	Physical Hazards	<b>5.1.1C</b>	Oxidising substances that are liquids or solids: low hazard
	Health Hazards	<b>6.1E</b>	Substances that are acutely toxic –May be harmful, Aspiration hazard
		<b>6.3B</b>	Substances that are mildly irritating to the skin
		<b>6.4A</b>	Substances that are irritating to the eye
		<b>6.6A</b>	Substances that are known or presumed human mutagens
		<b>6.8B</b>	Substances that are suspected human reproductive or developmental toxicants

**3. COMPOSITION/INFORMATION ON INGREDIENTS***Ingredients*

Chemical Entity	Formula	CAS Number	Proportion
Sodium perborate, tetrahydrate	NaBO <sub>3</sub> ·4H <sub>2</sub> O / NaBO <sub>2</sub> ·H <sub>2</sub> O <sub>2</sub> ·3H <sub>2</sub> O	10486-00-7	>=96 - 100 %

**4. FIRST AID MEASURES***Description of necessary measures according to routes of exposure*

<b>Swallowed</b>	IF SWALLOWED: Rinse mouth with water. Do not induce vomiting. Get immediate medical advice/attention. Never give anything by mouth to an unconscious person.
<b>Eye</b>	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Protect unharmed eye. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Immediately call a Poison Centre or doctor/physician for advice.
<b>Skin</b>	IF ON SKIN: Remove contaminated clothing and shoes immediately. Flush skin with running water for at least 15 minutes. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing and shoes before reuse.
<b>Inhaled</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Centre or doctor/physician for advice. Apply resuscitation if victim is not breathing - Administer oxygen if breathing is difficult.
<b>Advice to Doctor</b>	If exposed or concerned, get medical advice/attention. Treat symptomatically. Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.
<b>Medical Conditions Aggravated by Exposure</b>	No information available.

**5. FIRE FIGHTING MEASURES**

<b>General Measures</b>	Remove persons from danger area. If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.
<b>Flammability Conditions</b>	Product is not flammable; May burn but does not ignite readily.
<b>Extinguishing Media</b>	Use Carbon dioxide (CO <sub>2</sub> ), foam or water spray for extinction - Do not use organic media.
<b>Fire and Explosion Hazard</b>	Product does not present an explosion hazard.
<b>Hazardous Products of Combustion</b>	Fire may produce irritating, toxic and/or corrosive toxic fumes, including oxygen.
<b>Special Fire Fighting Instructions</b>	Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
<b>Personal Protective Equipment</b>	Wear self-contained breathing apparatus (SCBA) and chemical splash suit. SCBA and structural firefighter's uniform may provide limited protection.
<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>	Ensure adequate ventilation. ELIMINATE all ignition sources. Do not touch or walk through spilled material. Avoid formation of dust. Avoid breathing dust and contact with eyes, skin and clothing.
<b>Clean Up Procedures</b>	Pick up mechanically. Send for recovery or disposal in suitable receptacles (see SECTION 13).
<b>Containment</b>	Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas. Prevent dust cloud.
<b>Decontamination</b>	Clean the affected area carefully with water. Dispose of the material collected according to regulations.
<b>Environmental Precautionary Measures</b>	Do not allow to enter sewers, surface or ground water.
<b>Evacuation Criteria</b>	Spill or leak area should be isolated immediately. Keep unauthorised personnel away.
<b>Personal Precautionary Measures</b>	Use personal protective clothing as required (see SECTION 8).

**7. HANDLING AND STORAGE**

<b>Handling</b>	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation - Use only outdoors or in a well-ventilated area. Obtain special instructions before use - Do not handle until all safety precautions have been read and understood. Avoid formation of dust. Avoid breathing dust and contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection (see SECTION 8). The usual precautionary measures are to be adhered to when handling chemicals.
<b>Storage</b>	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Protect from humidity and water. Keep away from heat and sources of ignition - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10). Store locked up. - Maximum storage temperature: < 40 °C - Recommended storage temperature: < 30 °C
<b>Container</b>	Keep in the original container.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

<b>General</b>	The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. For dusts from solid substances without specific occupational exposure standards: - Safe Work Australia Exposure Standard (Nuisance dusts): 8 hr TWA = 10 mg/m <sup>3</sup> (measured as inhalable dust). - New Zealand WES (Particulates not otherwise classified): TWA = 10 mg/m <sup>3</sup> ; TWA = 3 mg/m <sup>3</sup> (respirable dust). Derived no-effect levels (DNELs): Sodium perborate, monohydrate (CAS No. 10332-33-9): - Oral: Long-term, systemic effects: 0.36 mg/kg bw/day (General population). - Dermal: Long-term, systemic effects: 36 mg/kg bw/day (General population). - Dermal: Long-term, systemic effects: 101 mg/kg bw/day (Worker). - Inhalative: Long-term, local effects: 0.5 mg/m <sup>3</sup> (General population). - Inhalative: Long-term, local effects: 2 mg/m <sup>3</sup> (Worker). - Inhalative: Long-term, systemic effects: 0.5 mg/m <sup>3</sup> (General population). - Inhalative: Long-term, systemic effects: 2 mg/m <sup>3</sup> (Worker).
<b>Exposure Limits</b>	No Data Available
<b>Biological Limits</b>	No information available.
<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>	- Respiratory protection: Use suitable respiratory protective device when high concentrations are present. Recommended: For short term use, Filter P1 or FFP1 (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Gauze goggles. - Hand protection: Wear protective gloves. Recommended: PVC or rubber gloves. Penetration time of glove material: >=240 min. - Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Protective work clothing.

<b>Special Hazards Precautions</b>	No information available.
<b>Work Hygienic Practices</b>	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and at the end of work. Take off contaminated clothing and wash before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Solid
<b>Appearance</b>	Free-flowing, crystalline salt
<b>Odour</b>	Odourless
<b>Colour</b>	White
<b>pH</b>	10-15 g/l (20 °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>	338 K (1013 hPa)
<b>Freezing Point</b>	No Data Available
<b>Solubility</b>	23 g/l in water 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>	700 - 950 kg/m <sup>3</sup>
<b>Corrosion Rate</b>	No Data Available
<b>Decomposition Temperature</b>	ca. 60 °C
<b>Density</b>	No Data Available
<b>Specific Heat</b>	No Data Available
<b>Molecular Weight</b>	153.88 g/mol
<b>Net Propellant Weight</b>	No Data Available
<b>Octanol Water Coefficient</b>	No Data Available
<b>Particle Size</b>	95% >0.10 mm (Typical grain size)
<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>	Active Oxygen content: ca. 10 %
<b>Potential for Dust Explosion</b>	Product does not present an explosion hazard.
<b>Fast or Intensely Burning Characteristics</b>	No information available.
<b>Flame Propagation or Burning Rate of Solid Materials</b>	No information available.
<b>Non-Flammables That Could Contribute Unusual Hazards to a Fire</b>	No information available.
<b>Properties That May Initiate or Contribute to Fire Intensity</b>	Product is not flammable; May burn but does not ignite readily.

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<b>Reactions That Release Gases or Vapours</b>	Fire may produce irritating, toxic and/or corrosive toxic fumes, including oxygen.
<b>Release of Invisible Flammable Vapours and Gases</b>	No information available.

## 10. STABILITY AND REACTIVITY

<b>General Information</b>	Exothermic thermal decomposition. Thermal decomposition starts at 60 °C.
<b>Chemical Stability</b>	Stable at environment temperature.
<b>Conditions to Avoid</b>	To avoid thermal decomposition, do not overheat. Protect from heat and direct sunlight. Protect from humidity and water.
<b>Materials to Avoid</b>	Incompatible/reactive with reducing agents, alkalis (caustic solutions, lyes), acids.
<b>Hazardous Decomposition Products</b>	No dangerous decomposition products known. Fire may produce irritating, toxic and/or corrosive toxic fumes, including oxygen.
<b>Hazardous Polymerisation</b>	No information available.

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	<ul style="list-style-type: none"><li>- Acute toxicity: Based on available data, the classification criteria are not met. May be harmful if swallowed; Irritation of gastric mucosa.</li><li>- Skin corrosion/irritation: Based on available data, the classification criteria are not met. May cause skin irritation.</li><li>- Eye damage/irritation: Causes serious eye damage.</li><li>- Respiratory/skin sensitisation: Based on available data, the classification criteria are not met.</li><li>- Germ cell mutagenicity: Based on available data, the classification criteria are not met.</li><li>- Carcinogenicity: Based on available data, the classification criteria are not met.</li><li>- Reproductive toxicity: May damage the unborn child. Suspected of damaging fertility.</li><li>- STOT (single exposure): May cause respiratory irritation.</li><li>- STOT (repeated exposure): Based on available data, the classification criteria are not met.</li><li>- Aspiration toxicity: Based on available data, the classification criteria are not met.</li></ul>
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### Acute

<b>Ingestion</b>	Acute toxicity (Oral): - LD50, Rat: 2,567 mg/kg [OECD Guideline 401].
<b>Other</b>	Acute toxicity (Dermal): - LD50, Rabbit: >2,000 mg/kg [OECD Guideline 402].

### Chronic

<b>Ingestion</b>	Sub-acute to chronic toxicity (Oral): - NOEL, Rat: <1,000 mg/kg (28-day study).
<b>Reproduction</b>	Prenatal development toxicity (fetotoxicity): - NOAEL, Rat (female): 100 mg/kg bw/day [OECD 414]. Prenatal development toxicity (maternal toxicity): - NOAEL, Rat (female): 100 mg/kg bw/day [OECD 414].

<b>Carcinogen Category</b>	None
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## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Aquatic toxicity: - LC50, Fish (Brachydanio rerio): 51 mg/l (96 h) [OECD Guideline 203]. - EC50, Crustacea (Daphnia magna): 11 mg/l (48 h) [OECD Guideline 202]. - EC50, Algae (Pseudokirchneriella subcapitata): 3.3 mg/l [OECD Guideline 201]. - EC50, Algae (Desmodesmus subspicatus): 26.8 mg/l.
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- NOEC, Fish (Brachydanio rerio): 25 mg/l (96 h).
- NOEC, Crustacea (Daphnia magna): 8 mg/l (48 h).

<b>Persistence/Degradability</b>	Readily biodegradable. The product is unstable in water; Abiotic degradation by hydrolysis and reduction.
<b>Mobility</b>	Sodium perborate has no potential for adsorption onto sediments. It is readily degradable in aqueous media; Therefore, neither direct nor indirect exposure of soil is expected.
<b>Environmental Fate</b>	Slightly hazardous for water - Do not allow to enter sewers, surface or ground water.
<b>Bioaccumulation Potential</b>	Non-significant accumulation in organisms; Due to the ionic nature of sodium perborate and its degradation products, a potential for bioaccumulation is not to be expected.
<b>Environmental Impact</b>	No Data Available

## 13. DISPOSAL CONSIDERATIONS

<b>General Information</b>	Dispose of contents/container in accordance with local/regional/national regulations; must be specifically treated adhering to official regulations.
<b>Special Precautions for Land Fill</b>	Contaminated packaging: Packagings that may not be cleansed are to be disposed of in the same manner as the product.

## 14. TRANSPORT INFORMATION

### Land Transport (Australia)

ADG Code

<b>Proper Shipping Name</b>	Sodium perborate, tetrahydrate
<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
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

### Land Transport (Malaysia)

ADR Code

<b>Proper Shipping Name</b>	Sodium perborate, tetrahydrate
<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
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

### Land Transport (New Zealand)

NZS5433

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<b>Proper Shipping Name</b>	Sodium perborate, tetrahydrate
<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
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

## Land Transport (United States of America)

US DOT

<b>Proper Shipping Name</b>	Sodium perborate, tetrahydrate
<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
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for LAND transport.

## Sea Transport

IMDG Code

<b>Proper Shipping Name</b>	Sodium perborate, tetrahydrate
<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
<b>Comments</b>	NON-DANGEROUS GOODS: Not regulated for SEA transport.

## Air Transport

IATA DGR

<b>Proper Shipping Name</b>	Sodium perborate, tetrahydrate
<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>Comments</b>	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 &amp; 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** HSR004017**National/Regional Inventories**

<b>Australia (AIC)</b>	Listed
<b>Canada (DSL)</b>	Listed
<b>Canada (NDSL)</b>	Not Determined
<b>China (IECSC)</b>	Listed
<b>Europe (EINECS)</b>	234-390-0
<b>Europe (REACH)</b>	01-2119516039-43-0002
<b>Japan (ENCS/METI)</b>	Listed
<b>Korea (KECI)</b>	Not Determined
<b>Malaysia (EHS Register)</b>	Not Determined
<b>New Zealand (NZIoC)</b>	Listed
<b>Philippines (PICCS)</b>	Listed
<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>	Listed

**16. OTHER INFORMATION****Related Product Codes**

SOPERB1000, SOPERB1001, SOPERB1002, SOPERB1003, SOPERB1004, SOPERB1005, SOPERB1006, SOPERB1007, SOPERB1008, SOPERB1009, SOPERB1010, SOPERB1011, SOPERB1012, SOPERB1013, SOPERB1014, SOPERB1015, SOPERB1016, SOPERB1020, SOPERB1500, SOPERB1800, SOPERB1801, SOPERB1802, SOPERB1803, SOPERB2000, SOPERB2001, SOPERB2002, SOPERB2003, SOPERB2100, SOPERB3000, SOPERB3100, SOPERB4000, SOPERB4001,

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SOPERB5000, SOPERB5001, SOPERB5100, SOPERB5200, SOPERB6000, SOPERB6001, SOPERB6100, SOPERB6500, SOPERB6600, SOPERB7000, SOPERB7200, SOPERB7500, SOPERB8000, SOPERB8001, SOPERB8500, SOPERB8501, SOPERB9000, SOPERB9500

<b>Revision</b>	5
<b>Revision Date</b>	10 Dec 2020
<b>Reason for Issue</b>	Updated SDS
<b>Key/Legend</b>	< Less Than > Greater Than <b>AICS</b> Australian Inventory of Chemical Substances <b>atm</b> Atmosphere <b>CAS</b> Chemical Abstracts Service (Registry Number) <b>cm<sup>2</sup></b> Square Centimetres <b>CO<sub>2</sub></b> Carbon Dioxide <b>COD</b> Chemical Oxygen Demand <b>deg C (°C)</b> Degrees Celcius <b>EPA (New Zealand)</b> Environmental Protection Authority of New Zealand <b>deg F (°F)</b> Degrees Fahrenheit <b>g</b> Grams <b>g/cm<sup>3</sup></b> Grams per Cubic Centimetre <b>g/l</b> Grams per Litre <b>HSNO</b> Hazardous Substance and New Organism <b>IDLH</b> Immediately Dangerous to Life and Health <b>immiscible</b> Liquids are insoluable in each other. <b>inHg</b> Inch of Mercury <b>inH<sub>2</sub>O</b> Inch of Water <b>K</b> Kelvin <b>kg</b> Kilogram <b>kg/m<sup>3</sup></b> Kilograms per Cubic Metre <b>lb</b> Pound <b>LC50</b> 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. <b>LD50</b> 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. <b>ltr or L</b> Litre <b>m<sup>3</sup></b> Cubic Metre <b>mbar</b> Millibar <b>mg</b> Milligram <b>mg/24H</b> Milligrams per 24 Hours <b>mg/kg</b> Milligrams per Kilogram <b>mg/m<sup>3</sup></b> Milligrams per Cubic Metre <b>Misc or Miscible</b> Liquids form one homogeneous liquid phase regardless of the amount of either component present. <b>mm</b> Millimetre <b>mmH<sub>2</sub>O</b> Millimetres of Water <b>mPa.s</b> Millipascals per Second <b>N/A</b> Not Applicable <b>NIOSH</b> National Institute for Occupational Safety and Health <b>NOHSC</b> National Occupational Health and Safety Commission <b>OECD</b> Organisation for Economic Co-operation and Development <b>Oz</b> Ounce <b>PEL</b> Permissible Exposure Limit <b>Pa</b> Pascal <b>ppb</b> Parts per Billion <b>ppm</b> Parts per Million <b>ppm/2h</b> Parts per Million per 2 Hours <b>ppm/6h</b> Parts per Million per 6 Hours <b>psi</b> Pounds per Square Inch <b>R</b> Rankine <b>RCP</b> Reciprocal Calculation Procedure <b>STEL</b> Short Term Exposure Limit <b>TLV</b> Threshold Limit Value <b>tne</b> Tonne <b>TWA</b> Time Weighted Average <b>ug/24H</b> Micrograms per 24 Hours

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**UN** United Nations

**wt** Weight