

## 1. IDENTIFICATION

<b>Product Name</b>	<b>Caustic Soda</b>			
<b>Other Names</b>	Sodium Hydrate; Sodium hydroxide; Sodium hydroxide (Na(OH)); White caustic			
<b>Uses</b>	Manufacture of chemical products. Celluloses, soap, detergents.			
<b>Chemical Family</b>	No Data Available			
<b>Chemical Formula</b>	NaOH			
<b>Chemical Name</b>	Caustic Soda			
<b>Product Description</b>	No Data Available			
<b>Contact Information</b>	<b>Organisation</b>	<b>Location</b>	<b>Telephone</b>	<b>Ask For</b>
	Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000	SDS Officer
	Redox Pty Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222	
	Redox Inc.	2132A E. Dominguez Street Carson CA 90810 USA	+1-424-675-3200	
	Redox Chemicals Sdn Bhd	No. 8, Block G, Ground Floor, Taipan 2 Jalan PJU 1A/3 Ara Damansara 47301, Petaling Jaya, Selangor, Malaysia	+60-3-7843-6833	
	Poisons Information Centre	Westmead NSW	1800-251525 131126	
	Chemcall	Australia	1800-127406	
	Chemcall	New Zealand	+64-4-9179888	

## 2. HAZARD IDENTIFICATION

**Poisons Schedule (Aust)** 6

### Safe Work Australia

Approved Criteria for Classifying Hazardous Substances (NOHSC:1008(2004))

**Hazard Classification** Hazardous according to the criteria of Safe Work Australia [NOHSC:1008(2004)]

**Hazard Categories** **C** Corrosive

### Safe Work Australia

National Code of Practice for the Labelling or Workplace Substances (NOHSC:2012(1994))

**Risk Phrases** **R35** Causes severe burns.



<b>Safety Phrases</b>	<b>S26</b>	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	<b>S37/39</b>	Wear suitable gloves and eye/face protection.
	<b>S45</b>	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**National Transport Commission (Australia)**

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

<b>Dangerous Goods Classification</b>	Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

*Ingredients*

Chemical Entity	Formula	CAS Number	Proportion
Sodium Hydroxide	NaOH	1310-73-2	99.00 %

**4. FIRST AID MEASURES**

*Description of necessary measures according to routes of exposure*

<b>Swallowed</b>	Do NOT induce vomiting. If person is conscious give water to drink immediately to dilute the caustic soda. Seek urgent medical attention.
<b>Eye</b>	Immediately flush eyes with copious amounts of water for at least 30 minutes while holding eyelids open. Take care not to rinse contaminated water into the non-affected eye. Washing must be started within 10 seconds of contact and continued for 30 minutes to prevent permanent injury. Seek immediate medical attention. An Ophthalmology consultation is a must.
<b>Skin</b>	Remove contaminated clothing. Immediately flush the contaminated skin thoroughly with water for at least 15 minutes. Seek urgent medical attention.
<b>Inhaled</b>	Seek urgent medical help. Remove victim from exposure to fresh air. Provide emergency airway support. Give 100% humidified supplemental oxygen with artificial respiration. If needed transport to emergency medical facility without delay.
<b>Advice to Doctor</b>	Treat symptomatically based on judgement of doctor and individual reactions of patient.
<b>Medical Conditions Aggravated by Exposure</b>	Persons with lung diseases may be at an increased risk due to the toxic effects of this chemical on these organs.

**5. FIRE FIGHTING MEASURES**

<b>General Measures</b>	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.
<b>Flammability Conditions</b>	Product is not combustible.
<b>Extinguishing Media</b>	In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions. Use carbon dioxide or suitable dry chemical extinguisher. Do NOT use water.
<b>Fire and Explosion Hazard</b>	Direct contact with water can produce a violent exothermic reaction.
<b>Hazardous Products of Combustion</b>	Reacts with aluminium, tin, zinc and their alloys, copper, lead, etc. giving off hydrogen.
<b>Special Fire Fighting Instructions</b>	HAZCHEM: 2W Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
<b>Personal Protective Equipment</b>	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves) or chemical splash suit. Please note: Structural fire fighters protective clothing is recommended for fire situations only, it is not effective in



	spills.
<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>	2W

## 6. ACCIDENTAL RELEASE MEASURES

<b>General Response Procedure</b>	Allow only trained personnel wearing appropriate protective equipment to be involved in spill response. Avoid accidents, clean up immediately. Increase ventilation. Avoid walking through spilled product as it is slippery when spilt. Isolate the danger area. Use clean, non-sparking tools and equipment. Shut off all possible sources of ignition.
<b>Clean Up Procedures</b>	Mechanically collect as much of the spill as possible. Absorb with sand, earth or clay. Transfer to suitable, labelled, corrosion-resistant containers and dispose of promptly as hazardous waste. Spill on areas other than pavement, dirt or sand may be handled by removing the affected soils and placing into approved containers.
<b>Containment</b>	Stop leak if safe to do so. Dike spills immediately.
<b>Decontamination</b>	Dilute acid (preferably acetic acid may be used to neutralise residual traces of caustic soda) after flushing.
<b>Environmental Precautionary Measures</b>	Do not allow product to reach drains, sewers or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Authority.
<b>Evacuation Criteria</b>	Evacuate all unnecessary personnel.
<b>Personal Precautionary Measures</b>	Personnel involved in the clean up should wear full protective clothing as listed in section 8.

## 7. HANDLING AND STORAGE

<b>Handling</b>	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. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product vapours. Avoid prolonged or repeated exposure. Do not smoke, eat or drink when handling product. Product can react violently with water and acids. Caustic solution generates heat when further diluted with water. Concentrations greater than 40%, the heat generated can raise temperatures above the boiling point resulting in sporadic, violent eruptions or spattering. Emergency showers and eye-washes must be available. When used in its various applications, the product must be prevented from coming into uncontrolled direct contact with other products such as acids and metals. Never neutralise the solid product.
<b>Storage</b>	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Store away from aluminium, tin, zinc and alloys (bronzes), chrome and lead. Protect from damp and kept apart from acids, halogenated hydrocarbons, nitroparaffins, etc. The floor must be waterproof and anti-slip. A water supply or source must be provided in the place of storage. Emergency showers and eye-washes must be available. Special conditions: Prevent the product from becoming damp or aerated. Hygroscopic product. Becomes carbonated in contact with the air or moisture.
<b>Container</b>	Store in original packaging as approved by manufacturer. Recommended materials for warehouse storage and containers: Carbon steel, carbon steel drums, polythene sacks or Big-Bags.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General</b>	VLA-EC: 2 mg/m <sup>3</sup> (INSHT). TLV-STEL: 2 mg/m <sup>3</sup> (ACGIH ). WEL-Limit value - Short term: 2 mg/m <sup>3</sup> (UK)
	Human exposure: Workers: DNEL (local effects): 1 mg/m <sup>3</sup> (inhalation; long-term toxicity)
	General population:



DNEL (local effects): 1 mg/m<sup>3</sup> (inhalation; long-term toxicity)

OSHA PEL 8 hour TWA 2mg/m<sup>3</sup>  
ACGIH TLV - Ceiling 2mg/m<sup>3</sup>

**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. Adequate ventilation should be provided so that exposure limits are not exceeded.

**Personal Protection Equipment**

RESPIRATOR: In the case of sodium hydroxide powder emissions, use mask with dust filter (P2 or P3) (AS1715/1716).

EYES: Use safety goggles, splash proof and / or appropriate full face shield (AS1336/1337).

HANDS: Gloves for chemical hazards (AS2161).

CLOTHING: Suit or plastic apron and safety footwear providing protection against acids/alkalis (AS3765/2210).

**Work Hygienic Practices**

An eyewash fountain should be within the immediate work area for emergency use. Do not smoke, eat or drink when handling product.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Solid
<b>Appearance</b>	Solid, beads, blocks, micropearls
<b>Odour</b>	Odourless
<b>Colour</b>	White, Translucent
<b>pH</b>	14
<b>Vapour Pressure</b>	0 mmHg (20°C) (@ 20 °C)
<b>Relative Vapour Density</b>	No Data Available
<b>Boiling Point</b>	1388 deg C @101 325 Pa °C
<b>Melting Point</b>	323 deg C @101 325 Pa
<b>Freezing Point</b>	No Data Available
<b>Solubility</b>	100g / 100g 25°C
<b>Specific Gravity</b>	2.13 Water = 1
<b>Flash Point</b>	No Data Available
<b>Auto Ignition Temp</b>	No Data Available
<b>Evaporation Rate</b>	No Data Available
<b>Bulk Density</b>	No Data Available
<b>Corrosion Rate</b>	No Data Available
<b>Decomposition Temperature</b>	No Data Available
<b>Density</b>	2.13 g/cm <sup>3</sup> Relative
<b>Specific Heat</b>	No Data Available
<b>Molecular Weight</b>	No Data Available
<b>Net Propellant Weight</b>	No Data Available
<b>Octanol Water Coefficient</b>	Not Applicable
<b>Particle Size</b>	No Data Available
<b>Partition Coefficient</b>	No Data Available
<b>Saturated Vapour Concentration</b>	No Data Available
<b>Vapour Temperature</b>	No Data Available
<b>Viscosity</b>	No Data Available
<b>Volatile Percent</b>	No Data Available
<b>VOC Volume</b>	No Data Available



<b>Additional Characteristics</b>	Flammability (solid, gas): Inorganic oxides in which the inorganic element is in its highest possible oxidation state are incapable of further reaction with oxygen and can thus be designated as non-flammable. Self-heating: The preliminary results exclude self-heating of the substance up to 400°C.
<b>Potential for Dust Explosion</b>	No Data Available
<b>Fast or Intensely Burning Characteristics</b>	Highly exothermal reaction with strong acids. Reacts dangerously with acetic acid, allyl chloride, chlorine trifluoride, chloroform, methylic alcohol, chloronitrotoluene, chlorosulphonic acid, glyoxal, cyanohydrin, hydrochloric acid, hydrofluoric acid, hydroquinone, nitric acid, sulphuric acid and oleum, nitropropane, phosphorous, propiolactone, phosphorous pentoxide, tetrachlorobenzene, tetrahydrofuran, etc. Caustic soda forms salts with nitromethane and nitroparaffins that explode on impact.
<b>Flame Propagation or Burning Rate of Solid Materials</b>	No Data Available
<b>Non-Flammables That Could Contribute Unusual Hazards to a Fire</b>	Heat is generated when mixed with water. Spattering and boiling can occur. Caustic soda solution reacts readily with various reducing sugars (ie: fructose, galactose, maltose, dry whey solids) to produce carbon monoxide.
<b>Properties That May Initiate or Contribute to Fire Intensity</b>	Caustic soda forms salts with nitromethane and nitroparaffins that explode on impact.
<b>Reactions That Release Gases or Vapours</b>	Reacts with aluminium, tin, zinc and their alloys, copper, lead, etc. giving off hydrogen.
<b>Release of Invisible Flammable Vapours and Gases</b>	No Data Available

## 10. STABILITY AND REACTIVITY

<b>General Information</b>	Corrosive Solid.
<b>Chemical Stability</b>	The substance is stable under normal environmental conditions and foreseeable conditions of temperature and pressure during the storage and handling.
<b>Conditions to Avoid</b>	Do not expose to the elements for excessive periods, to prevent degradation of the container.
<b>Materials to Avoid</b>	Highly exothermal reaction with strong acids. Aluminium, tin, zinc and their alloys, copper, lead, etc. Acetic acid, allyl chloride, chlorine trifluoride, chloroform, methylic alcohol, chloronitrotoluene, chlorosulphonic acid, glyoxal, cyanohydrin, hydrochloric acid, hydrofluoric acid, hydroquinone, nitric acid, sulphuric acid and oleum, nitropropane, phosphorous, propiolactone, phosphorous pentoxide, tetrachlorobenzene, tetrahydrofuran, nitromethane and nitroparaffins. Caustic soda forms salts with nitromethane and nitroparaffins that explode on impact. Caustic soda solution reacts readily with various reducing sugars (ie: fructose, galactose, maltose, dry whey solids) to produce carbon monoxide.
<b>Hazardous Decomposition Products</b>	Reacts with aluminium, tin, zinc and their alloys, copper, lead, etc. giving off hydrogen. When the product decomposes, toxic sodium oxide gases are given off.
<b>Hazardous Polymerisation</b>	No Data Available

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	Animal Toxicity: Oral LDLO Rabbit: 500 mg/kg Skin, Rabbit, Adult, 500 mg/24h Severe irritation Eye, Rabbit, Adult 50mg/24h Severe irritation Intra peritoneal, Mouse, LD50 40mg/kg  Specific target organ toxicity – repeated exposure: Corrosive substance. In addition, the substance is not expected to be systemically available in the body under normal handling and use conditions and therefore systemic effects of the substance after repeated exposure are not expected to occur.  CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction): Carcinogenicity: The substance did not induce mutagenicity in in vitro and in vivo studies (EU RAR, 2007). Systemic carcinogenicity is not expected to occur because the substance is not expected to be systemically available in the body under normal handling and use conditions.  Germ cell mutagenicity: Both the in vitro and the in vivo genetic toxicity tests indicated no evidence of mutagenic activity. Furthermore the substance is not expected to be systemically available in the body under normal handling and use conditions and for this reason additional testing is considered unnecessary (EU RAR, 2007).
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Reproductive toxicity: The substance is not expected to be systemically available in the body under normal handling and use conditions and for this reason it can be stated that the substance will not reach the foetus nor reach male and female reproductive organs.

Reproductive toxicity, effects on or via lactation: The substance is not expected to be systemically available in the body under normal handling and use conditions and for this reason additional testing is considered unnecessary.

<b>EyeIrritant</b>	Causes severe burns. Can cause ulceration of the conjunctiva and cornea.
<b>Ingestion</b>	Causes severe burns. Burns to the mouth, esophagus, can cause intestinal perforation.
<b>Inhalation</b>	Causes severe burns. Irritation of the respiratory system.
<b>SkinIrritant</b>	Causes severe burns. Intense burning and ulcers penetrating the skin.
<b>Carcinogen Category</b>	No Data Available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

The hazard of the substance for the environment is caused by the hydroxyl ion (pH effect). For this reason the effect of the substance on the organisms depends on the buffer capacity of the aquatic or terrestrial ecosystem. The high water solubility and low vapour pressure indicate that the substance will be found predominantly in water. Also the variation in acute toxicity for aquatic organisms can be explained for a significant extent by the variation in buffer capacity of the test medium. LC50 values ranged between 33 and 189 mg/l.

#### Acute toxicity to fish

LC50 (lethal concentration, 50%): All available tests resulted in a range of toxicity values between 35 to 189 mg/l. However, in the majority of these test reports there were no data on pH variation.

#### Chronic toxicity to fish

NOEC (no observed effect concentration): It is not required to conduct this study since the substance dissociates in water and the only possible effect would result from the pH effect. However, pH will remain within environmentally expected ranges.

#### Acute toxicity to crustaceans

EC50 (effect concentration, 50%): Species: Ceriodaphnia. 40.4 mg/l (48 h; based on immobility). (Warne et al., 1999)

#### Chronic toxicity to crustaceans

NOEC (no observed effect concentration): it is not required to conduct this study since the substance dissociates in water and the only possible effect would result from the pH effect. However, pH will remain within environmentally expected ranges.

Toxicity data on soil micro- and macro-organisms and other environmentally relevant organisms, such as birds, bees and plants:

If emitted to soil, sorption to soil particles will be negligible. Depending on the buffer capacity of the soil, OH<sup>-</sup> will be neutralised in the soil pore water or the pH may increase. There is no direct exposure of soil to NaOH based on the available uses. In addition, no indirect exposure via air is expected as it rapidly neutralizes in air.

### Persistence/Degradability

Readily biodegradable

Other relevant information Abiotic degradation:

NaOH is a strong alkaline substance that dissociates completely in water to Na<sup>+</sup> and OH<sup>-</sup>. High water solubility and low vapour pressure indicate that NaOH will be found predominantly in aquatic environment. This implies that it will not adsorb on particulate matter or surfaces. Atmospheric emissions as aerosols are rapidly neutralized by carbon dioxide and the salts will be washed out by rain.

### Mobility

High water solubility and mobility.

### Environmental Fate

Caustic soda may react violently with acids and water. Do not allow drainage into sewers, streams or storm conduits.

### Bioaccumulation Potential

Bioconcentration factor (BCF): experimental data: Considering its high water solubility, NaOH is not expected to bioconcentrate in organisms. In addition, sodium is a naturally-occurring element that is prevalent in the environment and to which organisms are exposed regularly, for which they have some capacity to regulate the concentration in the organism.

Partition coefficient: n-octanol/water (log Pow): Not applicable (inorganic substance).

### 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.  
 The product can be neutralised using highly diluted hydrochloric acid, which should be added very slowly by specialised personnel wearing proper protection.  
**NEVER NEUTRALISE THE SOLID PRODUCT.**

**14. TRANSPORT INFORMATION**

**Land Transport (Australia)**

ADG

<b>Proper Shipping Name</b>	SODIUM HYDROXIDE, SOLID
<b>Class</b>	8 Corrosive Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	37 Toxic And/Or Corrosive Substances Non-Combustible
<b>UN Number</b>	1823
<b>Hazchem</b>	2W
<b>Pack Group</b>	II
<b>Special Provision</b>	No Data Available

**Sea Transport**

IMDG

<b>Proper Shipping Name</b>	SODIUM HYDROXIDE, SOLID
<b>Class</b>	8 Corrosive Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	1823
<b>Hazchem</b>	2W
<b>Pack Group</b>	II
<b>Special Provision</b>	No Data Available
<b>EMS</b>	FA,SB
<b>Marine Pollutant</b>	No

**Air Transport**

IATA

<b>Proper Shipping Name</b>	SODIUM HYDROXIDE, SOLID
<b>Class</b>	8 Corrosive Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	1823
<b>Hazchem</b>	2W
<b>Pack Group</b>	II
<b>Special Provision</b>	No Data Available

**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)



## 15. REGULATORY INFORMATION

General Information No Data Available

Poisons Schedule (Aust) 6

## National/Regional Inventories

Australia (AICS) Listed

## 16. OTHER INFORMATION

## Related Product Codes

CASODA0300, CASODA1000, CASODA1001, CASODA1002, CASODA1003, CASODA1004, CASODA1005, CASODA1006, CASODA1007, CASODA1008, CASODA1009, CASODA1010, CASODA1011, CASODA1012, CASODA1013, CASODA1014, CASODA1015, CASODA1016, CASODA1017, CASODA1018, CASODA1019, CASODA1020, CASODA1021, CASODA1022, CASODA1023, CASODA1024, CASODA1025, CASODA1026, CASODA1027, CASODA1028, CASODA1029, CASODA1030, CASODA1031, CASODA1032, CASODA1033, CASODA1034, CASODA1035, CASODA1036, CASODA1037, CASODA1038, CASODA1039, CASODA1040, CASODA1041, CASODA1042, CASODA1043, CASODA1044, CASODA1045, CASODA1100, CASODA1101, CASODA1200, CASODA1201, CASODA1202, CASODA1203, CASODA1300, CASODA1301, CASODA1302, CASODA1303, CASODA1304, CASODA1305, CASODA1306, CASODA1307, CASODA1308, CASODA1309, CASODA1310, CASODA1311, CASODA1312, CASODA1313, CASODA1314, CASODA1315, CASODA1316, CASODA1317, CASODA1318, CASODA1319, CASODA1320, CASODA1321, CASODA1322, CASODA1323, CASODA1324, CASODA1325, CASODA1326, CASODA1327, CASODA1328, CASODA1329, CASODA1330, CASODA1331, CASODA1332, CASODA1400, CASODA1401, CASODA1402, CASODA1403, CASODA1500, CASODA1600, CASODA1700, CASODA1701, CASODA1800, CASODA1801, CASODA1900, CASODA2000, CASODA2001, CASODA2002, CASODA2003, CASODA2004, CASODA2005, CASODA2100, CASODA2101, CASODA2102, CASODA2200, CASODA2201, CASODA2202, CASODA2300, CASODA2301, CASODA2302, CASODA2400, CASODA2500, CASODA2501, CASODA2502, CASODA2503, CASODA2504, CASODA2505, CASODA2506, CASODA2600, CASODA2601, CASODA2602, CASODA2603, CASODA2604, CASODA2605, CASODA2606, CASODA2607, CASODA2608, CASODA2609, CASODA2700, CASODA2701, CASODA2702, CASODA2703, CASODA2704, CASODA2800, CASODA2900, CASODA3000, CASODA3001, CASODA3002, CASODA3003, CASODA3004, CASODA3005, CASODA3006, CASODA3007, CASODA3008, CASODA3100, CASODA3101, CASODA3200, CASODA3201, CASODA3300, CASODA3400, CASODA3500, CASODA3501, CASODA3502, CASODA3503, CASODA3504, CASODA3505, CASODA3506, CASODA3600, CASODA3601, CASODA3700, CASODA3800, CASODA3900, CASODA4000, CASODA4001, CASODA4002, CASODA4003, CASODA4004, CASODA4005, CASODA4006, CASODA4200, CASODA4201, CASODA4500, CASODA4501, CASODA4502, CASODA4503, CASODA4504, CASODA4505, CASODA4506, CASODA4507, CASODA4508, CASODA4600, CASODA4601, CASODA5000, CASODA5001, CASODA5002, CASODA5003, CASODA5004, CASODA5005, CASODA5100, CASODA5200, CASODA5300, CASODA5500, CASODA5501, CASODA5600, CASODA6000, CASODA6001, CASODA6500, CASODA6501, CASODA7000, CASODA7100, CASODA7101, CASODA7200, CASODA7500, CASODA7700, CASODA7701, CASODA7702, CASODA8000, CASODA8100, CASODA8101, CASODA8200, CASODA8300, CASODA8400, CASODA9000, CASODA9600, CASODI3800, CASODA1802, CASODA1803, CASODA1804, CASODA1805, CASODA1806, CASODA1807, CASODA1808, CASODA1809, CASODA1810, CASODA1811, CASODA1812, CASODA1813, CASODA1814, CASODA1815, CASODA1816, CASODA1817, CASODA1818, CASODA1819, CASODA1820, CASODA1821, CASODA1822, CASODA1823, CASODA1824, CASODA9100, CASODA5301, CASODA5014, CASODA5006, CASODA6010, CASODA5310, CASODA5502, CASODA5050, CASODA3010, CASODA3011, CASODA3021, CASODA3020, CASODA3030, CASODA3040, CASODA6050, CASODA6051, CASODA1150, CASODA2103, CASODA8250, CASODA8210, CASODA8255, CASODA1050, CASODA1750, CASODA1755, CASODA1760, CASODA1765, CASODA1770, CASODA1780, CASODA1785, CASODA8205, CASODA1761

Revision 2

Revision Date 01 Aug 2012

Key/Legend < Less Than  
> Greater Than**AICS** Australian Inventory of Chemical Substances**atm** Atmosphere**CAS** Chemical Abstracts Service (Registry Number)**cm<sup>2</sup>** Square Centimetres**CO<sub>2</sub>** Carbon Dioxide**COD** Chemical Oxygen Demand**deg C (°C)** Degrees Celcius**EPA (New Zealand)** Environmental Protection Authority of New Zealand



**deg F (°F)** Degrees Fahrenheit  
**g** Grams  
**g/cm<sup>3</sup>** Grams per Cubic Centimetre  
**g/l** Grams per Litre  
**HSNO** Hazardous Substance and New Organism  
**IDLH** Immediately Dangerous to Life and Health  
**immiscible** Liquids are insoluble in each other.  
**inHg** Inch of Mercury  
**inH<sub>2</sub>O** Inch of Water  
**K** Kelvin  
**kg** Kilogram  
**kg/m<sup>3</sup>** Kilograms per Cubic Metre  
**lb** Pound  
**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  
**m<sup>3</sup>** Cubic Metre  
**mbar** Millibar  
**mg** Milligram  
**mg/24H** Milligrams per 24 Hours  
**mg/kg** Milligrams per Kilogram  
**mg/m<sup>3</sup>** Milligrams per Cubic Metre  
**Misc** or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.  
**mm** Millimetre  
**mmH<sub>2</sub>O** Millimetres of Water  
**mPa.s** Millipascals per Second  
**N/A** Not Applicable  
**NIOSH** National Institute for Occupational Safety and Health  
**NOHSC** National Occupational Health and Safety Commission  
**OECD** Organisation for Economic Co-operation and Development  
**Oz** Ounce  
**PEL** Permissible Exposure Limit  
**Pa** Pascal  
**ppb** Parts per Billion  
**ppm** Parts per Million  
**ppm/2h** Parts per Million per 2 Hours  
**ppm/6h** Parts per Million per 6 Hours  
**psi** Pounds per Square Inch  
**R** Rankine  
**RCP** Reciprocal Calculation Procedure  
**STEL** Short Term Exposure Limit  
**TLV** Threshold Limit Value  
**tne** Tonne  
**TWA** Time Weighted Average  
**ug/24H** Micrograms per 24 Hours  
**UN** United Nations  
**wt** Weight

