

#### 1. IDENTIFICATION

Product Name Caustic Soda
Other Names Soda lye

Uses Food processing aid; Industrial/commercial use: In flotation agents; in pH regulation; as a solvent; in water treatment; as a

photochemical; as a reducing agent; and in hydraulic fracturing. Domestic use: In cleaning/washing agents and additives;

adhesives; and cosmetic use.

Chemical Family No Data Available

Chemical Formula NaOH

 Chemical Name
 Sodium hydroxide

 Product Description
 No Data Available

### Contact Details of the Supplier of this Safety Data Sheet

 Organisation
 Location
 Telephone

 Redox Ltd
 2 Swettenham Road
 +61-2-97333000

Minto NSW 2566 Australia

> Wiri Auckland 2104 New Zealand

Redox Inc. 3960 Paramount Boulevard +1-424-675-3200

Suite 107

Lakewood CA 90712

USA

Redox Chemicals Sdn Bhd Level 2, No. 8, Jalan Sapir 33/7 +60-3-5614-2111

Seksyen 33, Shah Alam Premier Industrial Park

40400 Shah Alam Sengalor, Malaysia

## **Emergency Contact Details**

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

OrganisationLocationTelephonePoisons Information CentreWestmead NSW1800-251525<br/>131126ChemcallAustralia1800-127406<br/>+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

## **Globally Harmonised System**

Hazard Classification Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of

Chemicals (GHS)

Hazard Categories Corrosive to Metals - Category 1

Skin Corrosion/Irritation - Category 1B Serious Eye Damage/Irritation - Category 1

**Pictograms** 



Signal Word Danger

Hazard Statements H290 May be corrosive to metals.

**H314** Causes severe skin burns and eye damage.

**AUH071** Corrosive to the respiratory tract

**Precautionary Statements** Prevention **P280** Wear protective gloves/protective clothing/eye protection/face protection.

**P260** Do not breathe dusts or mists.

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.

**P390** Absorb spillage to prevent material-damage.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

**P363** Wash contaminated clothing before reuse.

P304 + P340 IF INHALED: Remove victim to fresh air and keep comfortable for breathing.

Storage P406 Store in corrosive resistant container with a resistant inner liner.

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 hydroxide	NaOH	1310-73-2	>=98 - 100 %

#### 4. FIRST AID MEASURES

### Description of necessary measures according to routes of exposure

Swallowed IF SWALLOWED: Rinse mouth, then drink a glass of water. Do NOT induce vomiting. Immediately call a Poison Centre or

doctor/physician for advice. Never give anything by mouth to an unconscious person.

Eye IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting

the upper and lower lids. Remove contact lenses if present and easy to do. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes. Immediately call a Poison Centre or doctor/physician for

advice.

Skin IF ON SKIN (or hair): Remove and isolate contaminated clothing and shoes. Immediately flush skin and hair with running

water for at least 15 minutes. Immediately call a Poison Centre or doctor/physician for advice. Wash contaminated

clothing and shoes before reuse.

\*For minor skin contact, avoid spreading material on unaffected skin.

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. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with

a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult.

Advice to Doctor Treat symptomatically and supportively. Keep victim calm and warm. Effects of exposure (inhalation, ingestion or skin

contact) to substance may be delayed.

\*Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Medical Conditions Aggravated by No information available.

**Exposure** 

### 5. FIRE FIGHTING MEASURES

General Measures Move containers from fire area if you can do it without risk. Cool containers with flooding quantities of water until well

after fire is out. Dike fire-control water for later disposal; do not scatter the material. Do not get water inside containers!

Flammability Conditions Non-combustible; substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic

tumes

**Extinguishing Media** If material is involved in a fire, use extinguishing media suitable for the surrounding fire. Do not use water jet as an

extinguisher, as this will spread the fire.

\*If water is used, care should be taken, since it can generate heat and cause spattering if applied directly to Sodium

hydroxide.

Fire and Explosion Hazard Risk of violent reaction or explosion! Containers may explode when heated or contaminated with water. The heat

generated by contact with water (heat of dilution) may be sufficient to ignite combustible materials. Contact with metals

may evolve flammable hydrogen gas.

**Hazardous Products of** 

Combustion

Fire may produce irritating, corrosive and/or toxic gases, including oxides of Sodium.

**Special Fire Fighting Instructions** Contain runoff from fire control or dilution water - Runoff may be corrosive and/or toxic and cause pollution.

Personal Protective Equipment Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing - It may provide

little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations

ONLY; it is not effective in spill situations where direct contact with the substance is possible.

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 2W

## **6. ACCIDENTAL RELEASE MEASURES**

General Response Procedure Ensure adequate ventilation - Ventilate enclosed spaces before entering. ELIMINATE all ignition sources (no smoking,

flares, sparks or flames in immediate area). Do not touch or walk through spilled material. Avoid generating dust. Do not

breathe dust and prevent contact with eyes, skin and clothing.

Clean Up Procedures Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers for disposal (see

SECTION 13).

\*Do NOT get water inside containers. Never return contaminated material to its original container.

**Containment** Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas.

**Decontamination** Flush area with water. Neutralise with dilute acid.

**Environmental Precautionary** 

Measures

Spillages and decontamination runoff should be prevented from entering drains and watercourses. Local authorities

should be advised if significant spillages cannot be contained.

**Evacuation Criteria** Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher

iouna.

Large spill: Immediately contact Police or Fire Brigade; Consider initial downwind evacuation of areas within at least 250\*

m.

Personal Precautionary Measures Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (see SECTION 8).

### 7. HANDLING AND STORAGE

**Handling** Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure

 $adequate\ ventilation.\ Handle\ in\ accordance\ with\ good\ industrial\ hygiene\ and\ safety\ practice.\ Avoid\ generating\ dust.\ Do$ 

 $not\ breathe\ dusts\ or\ mists\ and\ prevent\ contact\ with\ eyes,\ skin\ and\ clothing.\ Do\ not\ ingest.\ Wear\ protective$ 

gloves/protective clothing/eye protection/face protection (see SECTION 8). WARNING! Water reactive - Heat of reaction may be enough to ignite combustible materials. When diluting, always add the product to water - Never add water to the

product.

Storage Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Protect from

moisture/humidity (hygroscopic). 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.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**General** For Sodium hydroxide (CAS No. 1310-73-2):

- Safe Work Australia Exposure Standard: TWA = 2 mg/m3 Peak limitation.

- New Zealand Workplace Exposure Standard: Ceiling = 2 mg/m3.

- NIOSH REL/OSHA PEL: TWA = 2 mg/m3

- Immediately dangerous to life or health (IDLH) concentration: 10 mg/m3.

Exposure Limits No Data Available

Biological Limits No information available.

**Engineering Measures**Use local exhaust ventilation to prevent the chemical from entering the breathing zone of any worker. Air monitoring is

recommended to ensure control measures in place are working effectively.

**Personal Protection Equipment** - Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Supplied-air

respirator (refer to AS/NZS 1715 & 1716).

- Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Chemical goggles; Full

face shield may be required for supplementary protection.

- Hand protection: Wear protective gloves. Recommended: Elbow length PVC gloves.

- Skin/body protection: Wear appropriate personal protective clothing to prevent skin contact. Recommended: Overalls;

PVC apron; PVC protective suit may be required if exposure severe.

**Special Hazards Precaustions** No information available.

**Work Hygienic Practices** 

Do not eat, drink or smoke when using this product. Wash hands and face thoroughly after handling. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State** Solid

**Appearance** Flake, pearl, prill, beads, blocks

Odour Odourless

Colour White, translucent

Ηα

No Data Available **Vapour Pressure** No Data Available **Relative Vapour Density** 

**Boiling Point** 1,388 °C 318 °C **Melting Point** 

**Freezing Point** No Data Available

Soluble in water (Water reactive) Solubility

**Specific Gravity** 2.13

**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 2.13 g/cm3

**Specific Heat** No Data Available **Molecular Weight** No Data Available **Net Propellant Weight** No Data Available **Octanol Water Coefficient** No Data Available **Particle Size** No Data Available **Partition Coefficient** No Data Available **Saturated Vapour Concentration** No Data Available No Data Available Vapour Temperature Viscosity No Data Available **Volatile Percent** No Data Available **VOC Volume** No Data Available

**Additional Characteristics** No information available. **Potential for Dust Explosion** No information available.

**Fast or Intensely Burning** 

Characteristics

Risk of violent reaction or explosion!

Flame Propagation or Burning No information available.

**Rate of Solid Materials Non-Flammables That Could** 

Contribute Unusual Hazards to a

**Properties That May Initiate or** 

Contribute to Fire Intensity

Non-combustible; substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

The heat generated by contact with water (heat of dilution) may be sufficient to ignite combustible materials.

Fire or heat will produce irritating, toxic and/or corrosive gases, including oxides of Sodium.

**Reactions That Release Gases or Vapours** 

Fire

Release of Invisible Flammable Vapours and Gases

Contact with metals may evolve flammable hydrogen gas.

#### 10. STABILITY AND REACTIVITY

General Information Reacts violently with acid and is corrosive to metals such as aluminium, tin, lead and zinc; This produces a

combustible/explosive gas (hydrogen). Reacts with ammonium salts; This produces ammonia and generates fire hazard. Contact with moisture and water generates heat - Heat of reaction may be enough to ignite combustible materials.

Chemical Stability

The substance is stable under normal (and foreseeable) conditions of temperature and pressure during storage and

nandling.

Conditions to Avoid Avoid generating dust. Avoid exposure to moisture and incompatible materials. Keep away from heat and sources of

ignition.

Materials to Avoid Incompatible/reactive with 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.

**Hazardous Decomposition** 

**Products** 

Fire or heat will produce irritating, toxic and/or corrosive gases, including oxides of Sodium. Contact with metals may

evolve flammable hydrogen gas.

Hazardous Polymerisation Will r

Will not occur.

### 11. TOXICOLOGICAL INFORMATION

#### **General Information**

- Acute toxicity: Corrosive on ingestion; Symptoms include abdominal pain, burns in mouth and throat, burning sensation in the throat and chest, nausea, vomiting, shock or collapse. The substance is not expected to be systemically available and the effects are expected to be due to pH changes.
- Skin corrosion/irritation: Corrosive; Causes severe skin burns. Symptoms include redness, pain, burns, blisters.
- Eye damage/irritation: Corrosive; Causes serious eye damage. Symptoms include redness, pain, blurred vision, severe burns.
- Respiratory/skin sensitisation: Based on data obtained in a study with human volunteers the substance has no skin sensitisation potential.
- Germ cell mutagenicity: Both the in vitro and the in vivo genetic toxicity tests indicated no evidence of mutagenic activity.
- Carcinogenicity: Systemic carcinogenicity is not expected to occur because the substance is not expected to be systemically available in the body.
- Reproductive toxicity: The substance is not expected to be systemically available in the body and for this reason it can be stated that the substance will not reach the foetus nor reach male and female reproductive organs.
- STOT (single exposure): Corrosive to the respiratory tract; Symptoms include cough, sore throat, burning sensation, shortness of breath.
- STOT (repeated exposure): The substance is not expected to be systemically available in the body and therefore systemic effects of the substance after repeated exposure are not expected to occur.
- Aspiration toxicity: No information available.

## **Carcinogen Category**

None

## 12. ECOLOGICAL INFORMATION

## **Ecotoxicity**

Aquatic toxicity:

- LC50, Fish: 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.
- EC50, Crustacea (Ceriodaphnia): 40.4 mg/l (48 h) [based on immobility].
- NOEC, Fish/Crustacea: 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.

Persistence/Degradability NaOH is a strong alkaline substance that dissociates completely in water to Na+ and OH-. 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 neutralised by carbon dioxide

and the salts will be washed out by rain.

Mobility High water solubility and mobility. If emitted to soil, sorption to soil particles will be negligible. Depending on the buffer

capacity of the soil, OH- 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 neutralises in

air.

Environmental Fate 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.

**Bioaccumulation Potential**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.

**Environmental Impact** No Data Available

#### 13. DISPOSAL CONSIDERATIONS

**General Information** Dispose of contents/container in accordance with local/regional/national regulations.

Special Precautions for Land Fill Any contaminated absorbent products must be treated by an authorised waste manager, along with any used packaging

and residue.

## 14. TRANSPORT INFORMATION

### Land Transport (Australia)

ADG Code

**Proper Shipping Name** SODIUM HYDROXIDE, SOLID

Class 8 Corrosive Substances

Subsidiary Risk(s) No Data Available

EPG 37 Toxic And/Or Corrosive Substances Non-Combustible

UN Number 1823 Hazchem 2W Pack Group II

**Special Provision** No Data Available

## Land Transport (Fiji)

**Proper Shipping Name** SODIUM HYDROXIDE, SOLID

Class 8 Corrosive Substances

Subsidiary Risk(s) No Data Available

**EPG** 37 Toxic And/Or Corrosive Substances Non-Combustible

UN Number 1823 Hazchem 2W Pack Group II

**Special Provision** No Data Available

## Land Transport (Malaysia)

ADR Code

 Proper Shipping Name
 SODIUM HYDROXIDE, SOLID

 Class
 8 Corrosive Substances

Subsidiary Risk(s) No Data Available

EPG 37 Toxic And/Or Corrosive Substances Non-Combustible

 UN Number
 1823

 Hazchem
 2W

 Pack Group
 II

**Special Provision** No Data Available

## Land Transport (New Caledonia)

Proper Shipping Name

SODIUM HYDROXIDE, SOLID

8 Corrosive Substances

Subsidiary Risk(s)

No Data Available

EPG 37 Toxic And/Or Corrosive Substances Non-Combustible

 UN Number
 1823

 Hazchem
 2W

 Pack Group
 II

Special Provision No Data Available

## Land Transport (New Zealand)

NZS5433

Proper Shipping Name

Class

8 Corrosive Substances

Subsidiary Risk(s)

No Data Available

**EPG** 37 Toxic And/Or Corrosive Substances Non-Combustible

 UN Number
 1823

 Hazchem
 2W

 Pack Group
 II

**Special Provision** No Data Available

## Land Transport (Papua New Guinea)

Proper Shipping Name SODIUM HYDROXIDE, SOLID
Class 8 Corrosive Substances
Subsidiary Risk(s) No Data Available

**EPG** 37 Toxic And/Or Corrosive Substances Non-Combustible

UN Number 1823 Hazchem 2W Pack Group II

**Special Provision** No Data Available

## **Land Transport (United States of America)**

**US DOT** 

Proper Shipping Name SODIUM HYDROXIDE, SOLID

Class 8 Corrosive Substances
Subsidiary Risk(s) No Data Available

ERG 154 Substances - Toxic and/or Corrosive (Non-Combustible)

UN Number 1823 Hazchem 2W Pack Group II

Special Provision No Data Available

## Land Transport (Vanuatu)

Proper Shipping Name

Class

8 Corrosive Substances

Subsidiary Risk(s)

No Data Available

EPG 37 Toxic And/Or Corrosive Substances Non-Combustible

 UN Number
 1823

 Hazchem
 2W

 Pack Group
 II

**Special Provision** No Data Available

## **Sea Transport**

IMDG Code

 Proper Shipping Name
 SODIUM HYDROXIDE, SOLID

 Class
 8 Corrosive Substances

 Subsidiary Risk(s)
 No Data Available

 UN Number
 1823

 Hazchem
 2W

 Pack Group
 II

**Special Provision** No Data Available

EMS F-A, S-B
Marine Pollutant No

## **Air Transport**

IATA DGR

Proper Shipping Name SODIUM HYDROXIDE, SOLID
Class 8 Corrosive Substances
Subsidiary Risk(s) No Data Available

 UN Number
 1823

 Hazchem
 2W

 Pack Group
 II

Special Provision 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 SODIUM HYDROXIDE

Poisons Schedule (Aust) Schedule 6

## **Environmental Protection Authority (New Zealand)**

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code HSR001547

#### **National/Regional Inventories**

Australia (AIIC) Listed

Canada (DSL) Listed

Canada (NDSL) Not Listed

China (IECSC) Listed

**Europe (EINECS)** 215-185-5

**Europe (REACh)** 01-2119457892-27-

Japan (ENCS/METI) Listed

Korea (KECI) Listed

Malaysia (EHS Register) Listed

New Zealand (NZIoC) Listed

Philippines (PICCS) Listed

Switzerland (Giftliste 1) Not Determined

**Switzerland (Inventory of Notified** 

Substances)

Not Determined

Taiwan (NCSR) Listed

USA (TSCA) 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, CASODA1050, CASODA1100, CASODA1101, CASODA1150, CASODA1200, CASODA1201, CASODA1202, CASODA1303, CASODA1304, CASODA1305, CASODA1306, CASODA1307, CASODA1308, CASODA1309, CASODA1310, CASODA1311, CASODA1312, CASODA1313, CASODA1315, CASODA1314, CASODA1315, CASODA1314, CASODA1315, CASODA1314, CASODA1324, CASODA1317, CASODA1318, CASODA1319, CASODA1320, CASODA1321, CASODA1322, CASODA1323, CASODA1324,

CASODA1325, CASODA1326, CASODA1327, CASODA1328, CASODA1329, CASODA1330, CASODA1331, CASODA1332, CASODA1400, CASODA1401, CASODA1402, CASODA1403, CASODA1500, CASODA1600, CASODA1700, CASODA1701, CASODA1750, CASODA1755, CASODA1760, CASODA1765, CASODA1770, CASODA1780, CASODA1785, CASODA1800, CASODA1801, CASODA1802, CASODA1803, CASODA1804, CASODA1805, CASODA1806, CASODA1807, CASODA1808, CASODA1809, CASODA1810, CASODA1811, CASODA1812, CASODA1813, CASODA1814, CASODA1815, CASODA1816, CASODA1817, CASODA1818, CASODA1819, CASODA1820, CASODA1821, CASODA1822, CASODA1823, CASODA1824, CASODA1825, CASODA1826, CASODA1827, CASODA1828, CASODA1900, CASODA2000, CASODA2001, CASODA2002, CASODA2003, CASODA2004, CASODA2005, CASODA2100, CASODA2101, CASODA2102, CASODA2103, 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, CASODA3010, CASODA3011, CASODA3020, CASODA3021, CASODA3030, CASODA3040, 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, CASODA4202, CASODA4303, CASODA4500, CASODA4501, CASODA4502, CASODA4503, CASODA4504, CASODA4505, CASODA4506, CASODA4507, CASODA4508, CASODA4600, CASODA4601, CASODA5000, CASODA5001, CASODA5002, CASODA5003, CASODA5004, CASODA5005, CASODA5006, CASODA5007, CASODA5008, CASODA5009, CASODA5010, CASODA5011, CASODA5012, CASODA5015, CASODA5016, CASODA5020, CASODA5050, CASODA5070, CASODA5075, CASODA5076, CASODA5200, CASODA5300, CASODA5301, CASODA5305, CASODA5306, CASODA5307, CASODA5308, CASODA5309, CASODA5310, CASODA5500, CASODA5501, CASODA5502, CASODA5503, CASODA5504, CASODA5505, CASODA5506, CASODA5600, CASODA6000, CASODA6001, CASODA6002, CASODA6003, CASODA6010, CASODA6050, CASODA6051, CASODA6500, CASODA6501, CASODA7000, CASODA7100, CASODA7101, CASODA7200, CASODA7300, CASODA7500, CASODA7700, CASODA7701, CASODA7702, CASODA8000, CASODA8100, CASODA8101, CASODA8102, CASODA8200, CASODA8201, CASODA8202, CASODA8205, CASODA8206, CASODA8210, CASODA8250, CASODA8255, CASODA8300, CASODA8400, CASODA9000, CASODA9100, CASODA9600, CASODI3800

Revision

6

**Revision Date** 

06 Sep 2021

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

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