

### 1. IDENTIFICATION

<b>Product Name</b>	<b>Linear alkyl benzenesulfonic acids</b>
<b>Other Names</b>	LABSA; LAS
<b>Uses</b>	Detergent, emulsifier.
<b>Chemical Family</b>	No Data Available
<b>Chemical Formula</b>	Unspecified
<b>Chemical Name</b>	Benzenesulfonic acid, C10-16-alkyl derivatives
<b>Product Description</b>	No Data Available

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

<b>Organisation</b>	<b>Location</b>	<b>Telephone</b>
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.*

<b>Organisation</b>	<b>Location</b>	<b>Telephone</b>
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

### 2. HAZARD IDENTIFICATION

**Poisons Schedule (Aust)** Schedule 6

#### Globally Harmonised System

<b>Hazard Classification</b>	Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
<b>Hazard Categories</b>	Corrosive to Metals - Category 1 Acute Toxicity (Oral) - Category 4 Acute Toxicity (Dermal) - Category 3 Skin Corrosion/Irritation - Category 1B Serious Eye Damage/Irritation - Category 1

**Pictograms**



**Signal Word** Danger

<b>Hazard Statements</b>	<b>H290</b>	May be corrosive to metals.
	<b>H302</b>	Harmful if swallowed.
	<b>H311</b>	Toxic in contact with skin.
	<b>H314</b>	Causes severe skin burns and eye damage.

<b>Precautionary Statements</b>	Prevention	<b>P280</b>	Wear protective gloves/protective clothing/eye protection/face protection.
		<b>P260</b>	Do not breathe mist/vapour/spray.
		<b>P270</b>	Do not eat, drink or smoke when using this product.
	Response	<b>P303 + P361 + P353</b>	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
		<b>P310</b>	Immediately call a POISON CENTER or doctor/physician.
		<b>P305 + P351 + P338</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		<b>P390</b>	Absorb spillage to prevent material damage.
		<b>P301 + P330 + P331</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
		<b>P363</b>	Wash contaminated clothing before reuse.
		<b>P304 + P340</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	Storage	<b>P406</b>	Store in corrosive resistant container with a resistant inner liner.
		<b>P405</b>	Store locked up.
	Disposal	<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** 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>	Health Hazards	<b>6.1D</b>	Substances that are acutely toxic - Harmful
		<b>6.3A</b>	Substances that are irritating to the skin
		<b>8.3A</b>	Substances that are corrosive to ocular tissue
	Environmental Hazards	<b>9.1A</b>	Substances that are very ecotoxic in the aquatic environment
		<b>9.2D</b>	Substances that are slightly harmful in the soil environment

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Linear alkyl benzenesulfonic acids (C10-C16)	Unspecified	68584-22-5	>=96 %
Unsulphonated alkylbenzene	Unspecified	67774-74-7	<=2 %
Free Sulphuric acid	H2SO4	7664-93-9	<=1.5 %
Water	H2O	7732-18-5	<=1.5 %

### 4. FIRST AID MEASURES

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

<b>Swallowed</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a Poison Centre or doctor/physician for advice. If vomiting occurs, rinse mouth and keep head lower than hips to help prevent aspiration. Obtain immediate medical care. 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. 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. Obtain immediate medical care.
<b>Skin</b>	IF ON SKIN: Remove contaminated clothing and shoes immediately. Flush skin with running water for at least 15 minutes; Wash with plenty of soap and water. For minor skin contact, avoid spreading material on unaffected skin. Immediately call a Poison Centre or doctor/physician for advice. 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. Immediately call a Poison Centre or doctor/physician for advice. Apply resuscitation if victim is not breathing - Do not use direct mouth-to-mouth method if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device. Administer oxygen if breathing is difficult. Obtain immediate medical care.
<b>Advice to Doctor</b>	Treat symptomatically - Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Keep victim calm and warm - Obtain immediate medical care. Ensure that attending medical personnel are aware of identity and nature of 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>	If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out. Avoid getting water inside containers.
<b>Flammability Conditions</b>	Combustible; May burn but does not ignite readily.
<b>Extinguishing Media</b>	Use dry chemical, Carbon dioxide (CO <sub>2</sub> ), alcohol-resistant foam or water spray for extinction - Do not use water jets.
<b>Fire and Explosion Hazard</b>	Containers may explode when heated. When heated, vapours may form explosive mixtures with air.
<b>Hazardous Products of Combustion</b>	Fire will produce irritating, toxic and/or corrosive gases, including oxides of Carbon, oxides of Sulphur.
<b>Special Fire Fighting Instructions</b>	Contain runoff from fire control or dilution water - Runoff may be toxic and/or corrosive and pollute waterways.
<b>Personal Protective Equipment</b>	Liquid-tight chemical protective clothing (splash suit) in combination with self-contained breathing apparatus (SCBA) should be used.
<b>Flash Point</b>	>150 °C
<b>Lower Explosion Limit</b>	No Data Available
<b>Upper Explosion Limit</b>	No Data Available
<b>Auto Ignition Temperature</b>	No Data Available

## 6. ACCIDENTAL RELEASE MEASURES

<b>General Response Procedure</b>	Ensure adequate ventilation - Ventilate enclosed spaces before entering. ELIMINATE all ignition sources. Do not touch or walk through spilled material. Do not breathe vapours; Prevent contact with eyes, skin and clothing.
<b>Clean Up Procedures</b>	Absorb with earth, sand or other non-combustible material and transfer to suitable container for disposal (see SECTION 13).
<b>Containment</b>	Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas. Large spill: Dike for later disposal.
<b>Decontamination</b>	No information available.
<b>Environmental Precautionary Measures</b>	Spillages and decontamination runoff should be prevented from entering drains and watercourses.
<b>Evacuation Criteria</b>	Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher ground (vapours can accumulate in low areas). Large spill: Consider initial downwind evacuation of areas within at least 250 m; Immediately contact Police or Fire Brigade.
<b>Personal Precautionary Measures</b>	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (see SECTION 8). Large spill: Wear self-contained breathing apparatus (SCBA) and chemical splash suit.

## 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 - Open only under well-ventilated conditions. Loosen closure cautiously before opening. Handle with care and in accordance with good industrial hygiene and safety practice. Do not breathe mist/vapours/spray; Prevent contact with eyes, skin and clothing. Wear protective gloves/protective clothing/eye protection/face protection; Wear respiratory protection if there is a risk of exposure to high vapour concentrations or spray mist (see SECTION 8). Keep away from heat and sources of ignition - No smoking. Use explosion-proof electrical/ventilating/lighting equipment. Absorb spillage to prevent material damage (see SECTION 6).
<b>Storage</b>	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Keep away from heat and sources of ignition - No smoking. Keep away from incompatible materials (see SECTION 10). Store locked up.
<b>Container</b>	Keep only in the original container or store in a corrosive resistant container with a resistant inner liner.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General</b>	No specific exposure standards are available for this product. For COMPONENT: Sulphuric acid (CAS No. 7664-93-9): - Safe Work Australia Exposure Standard: TWA = 1 mg/m <sup>3</sup> ; STEL = 3 mg/m <sup>3</sup> . - New Zealand WES: TWA = 1 mg/m <sup>3</sup> ; Confirmed carcinogen (6.7A); Currently under review.
<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, particularly in confined spaces. 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 explosion-proof electrical/ventilating/lighting equipment.
<b>Personal Protection Equipment</b>	- Respiratory protection: Wear respiratory protection if there is a risk of exposure to high vapour concentrations or spray mist. Recommended filter type: E/P (acid gas/particulate). - Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Chemical goggles or face-shield. - Hand protection: Wear protective gloves. Recommended: Chemical-resistant gloves. - Skin/body protection: Wear appropriate personal protective clothing to prevent skin contact. Recommended: Chemical-resistant clothing.
<b>Special Hazards Precautions</b>	No information available.
<b>Work Hygienic Practices</b>	Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove contaminated clothing and shoes immediately and wash before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Liquid
<b>Appearance</b>	Viscous liquid
<b>Odour</b>	No information available.
<b>Colour</b>	Amber
<b>pH</b>	<2
<b>Vapour Pressure</b>	0.513 mmHg (@ No Data Available)
<b>Relative Vapour Density</b>	No Data Available
<b>Boiling Point</b>	>50 °C
<b>Melting Point</b>	<-10 °C
<b>Freezing Point</b>	<-10 °C
<b>Solubility</b>	7.098 mg/l
<b>Specific Gravity</b>	1.05 - 1.06
<b>Flash Point</b>	>150 °C
<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>	No Data Available
<b>Specific Heat</b>	No Data Available
<b>Molecular Weight</b>	322 g/mol
<b>Net Propellant Weight</b>	No Data Available
<b>Octanol Water Coefficient</b>	log Kow = 2
<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>	No information available.
<b>Potential for Dust Explosion</b>	Not applicable.
<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>	Combustible; May burn but does not ignite readily.
<b>Reactions That Release Gases or Vapours</b>	Fire will produce irritating, toxic and/or corrosive gases, including oxides of Carbon, oxides of Sulphur.
<b>Release of Invisible Flammable Vapours and Gases</b>	When heated, vapours may form explosive mixtures with air.

## 10. STABILITY AND REACTIVITY

<b>General Information</b>	No information available.
<b>Chemical Stability</b>	This material is stable under recommended storage and handling conditions
<b>Conditions to Avoid</b>	Keep away from heat and sources of ignition.
<b>Materials to Avoid</b>	Incompatible/reactive with strong oxidising agents, strong alkalis.
<b>Hazardous Decomposition Products</b>	Fire will produce irritating, toxic and/or corrosive gases, including oxides of Carbon, oxides of Sulphur. When heated, vapours may form explosive mixtures with air.
<b>Hazardous Polymerisation</b>	Will not occur.

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	<ul style="list-style-type: none"> <li>- Acute toxicity: Harmful if swallowed. Toxic in contact with skin.</li> <li>- Skin corrosion/irritation: Causes severe skin burns; Corrosive to skin (Rabbit) [OECD TG 404].</li> <li>- Eye damage/irritation: Causes serious eye damage; Corrosive to eyes (Rabbit) [OECD TG 404].</li> <li>- Respiratory/skin sensitisation: Non-sensitising (GPMT).</li> <li>- Germ cell mutagenicity: Negative, in vitro bacterial reverse mutation test (Salmonella typhimurium, TA 98/100/1535/1537/1538).</li> <li>- Carcinogenicity: No information available.</li> <li>- Reproductive toxicity: No information available.</li> <li>- STOT (single exposure): No information available.</li> <li>- STOT (repeated exposure): Not information available.</li> <li>- Aspiration toxicity: No information available.</li> </ul>
<b>Acute</b>	
<b>Ingestion</b>	Acute toxicity (Oral): - LD50, Rat: 1,350 mg/kg [OECD TG 401].
<b>Other</b>	Acute toxicity (Dermal): - LD50, Rat: 530 ~ 1,060 mg/kg
<b>Carcinogen Category</b>	None

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Aquatic toxicity: - LC50, Fish (Oncorhynchus mykiss): 3 mg/l (96 h). - EC50, Crustacea (Daphnia magna): 2.9 mg/l (48 h). - EC50, Algae: 170 mg/l (96 h).
<b>Persistence/Degradability</b>	Persistence: Log Kow = 2 Biodegradability: 98.7 %, 7 days [KS M 2714].
<b>Mobility</b>	Mobility in soil: Koc = 1,064
<b>Environmental Fate</b>	Prevent entry into soils, drains and waterways.
<b>Bioaccumulation Potential</b>	BCF = 3.16
<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.
<b>Special Precautions for Land Fill</b>	No information available.

## 14. TRANSPORT INFORMATION

### Land Transport (Australia)

ADG Code

<b>Proper Shipping Name</b>	ALKYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid
<b>Class</b>	8 Corrosive Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	36 Toxic And/Or Corrosive Substances Combustible
<b>UN Number</b>	2586
<b>Hazchem</b>	2X
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available

### Land Transport (Canada)

TDG Regulations

<b>Proper Shipping Name</b>	ALKYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid
<b>Class</b>	8 Corrosive Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	36 Toxic And/Or Corrosive Substances Combustible
<b>UN Number</b>	2586
<b>Hazchem</b>	2X
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available

### Land Transport (Fiji)

<b>Proper Shipping Name</b>	ALKYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid
<b>Class</b>	8 Corrosive Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	36 Toxic And/Or Corrosive Substances Combustible
<b>UN Number</b>	2586
<b>Hazchem</b>	2X
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available

### Land Transport (Malaysia)

ADR Code

<b>Proper Shipping Name</b>	ALKYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid
<b>Class</b>	8 Corrosive Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	36 Toxic And/Or Corrosive Substances Combustible
<b>UN Number</b>	2586
<b>Hazchem</b>	2X
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available

### Land Transport (New Zealand)

NZS5433

<b>Proper Shipping Name</b>	ALKYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid
<b>Class</b>	8 Corrosive Substances

<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	36 Toxic And/Or Corrosive Substances Combustible
<b>UN Number</b>	2586
<b>Hazchem</b>	2X
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available

#### Land Transport (Papua New Guinea)

<b>Proper Shipping Name</b>	ALKYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid
<b>Class</b>	8 Corrosive Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	36 Toxic And/Or Corrosive Substances Combustible
<b>UN Number</b>	2586
<b>Hazchem</b>	2X
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available

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

US DOT

<b>Proper Shipping Name</b>	ALKYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid
<b>Class</b>	8 Corrosive Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>ERG</b>	153 Substances - Toxic and/or Corrosive (Combustible)
<b>UN Number</b>	2586
<b>Hazchem</b>	2X
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available

#### Sea Transport

IMDG Code

<b>Proper Shipping Name</b>	ALKYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid
<b>Class</b>	8 Corrosive Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	2586
<b>Hazchem</b>	2X
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available
<b>EMS</b>	F-A, S-B
<b>Marine Pollutant</b>	No

#### Air Transport

IATA DGR

<b>Proper Shipping Name</b>	ALKYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid
<b>Class</b>	8 Corrosive Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	2586
<b>Hazchem</b>	2X
<b>Pack Group</b>	III
<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)

Schedule 6

## Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

### Approval Code

HSR003163

## National/Regional Inventories

### Australia (AICS)

Listed

### Canada (DSL)

Listed

### Canada (NDSL)

Not Determined

### China (IECSC)

Listed

### 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)

Listed

## 16. OTHER INFORMATION

### Related Product Codes

DOBENC1000, DOBENC1100, DOBENZ1000, DOBENZ1001, DOBENZ1002, DOBENZ1003, DOBENZ1004, DOBENZ1005, DOBENZ1006, DOBENZ1007, DOBENZ1008, DOBENZ1009, DOBENZ1010, DOBENZ1011, DOBENZ1012, DOBENZ1500, DOBENZ1501, DOBENZ2500, DOBENZ2501, DOBENZ3000, DOBENZ3300,

DOBENZ3400, DOBENZ3500, DOBENZ3600, DOBENZ4000, DOBENZ5000, DOBENZ5100, DOBENZ5200, DOBENZ5201, DOBENZ5500, DOBENZ5600, DOBENZ6001, DOBENZ6002, DOBENZ6200, DOBENZ6300, DOBENZ6500, DOBENZ6600, DOBENZ6700, DOBENZ6900, DOBENZ7000, DOBENZ7001, DOBENZ7100, DOBENZ7200, DOBENZ7700, DOBENZ7800, DOBENZ8000, DOBENZ8001, DOBENZ8002, DOBENZ8003, DOBENZ8004, DOBENZ8005, DOBENZ8006, DOBENZ8007, DOBENZ8008, DOBENZ8009, DOBENZ8010, DOBENZ8011, DOBENZ8012, DOBENZ8013, DOBENZ8014, DOBENZ8015, DOBENZ8016, DOBENZ8017, DOBENZ8018, DOBENZ8019, DOBENZ8020, DOBENZ8021, DOBENZ8022, DOBENZ8023, DOBENZ8024, DOBENZ8025, DOBENZ8026, DOBENZ8500, DOBENZ8700, DOBENZ9000, DOBENZ9500, DOBENZ9600, DOBENZ9700, DOBENZ9701, DOBENZ9702, DOBENZ9703, DOBENZ9704, DOBENZ9705, DOBENZ9706, DOBENZ9707, DOBENZ9708, DOBENZ9709, DOBENZ9800, DOBENZ9801, DOBENZ9900, DOBENZ1800, DOBENZ1801, DOBENZ1802, DOBENZ1803, DOBENZ1804, DOBENZ1805, DOBENZ1806, DOBENZ1807, DOBENZ1808, DOBENZ1809, DOBENZ1810, DOBENZ1811, DOBENZ1812, DOBENZ1813, DOBENZ1814, DOBENZ1815, DOBENZ1816, DOBENZ1817, DOBENZ1818, DOBENZ1819, DOBENZ1820, DOBENZ9100, DOBENZ9101, DOBENZ6800, DOBENZ6801, DOBENZ2100, DOBENZ2101, DOBENZ2110, DOBENZ1821, DOBENZ2105, DOBENZ6811, DOBENZ0100, DOBENZ6802, DOBENZ2108, DOBENZ3010, DOBENZ3020, DOBENZ3030, DOBENZ3031, DOBENZ3040, DOBENZ2102, DOBENZ7002, DOBENZ2103, DOBENZ1021, DOBENZ9710, DOBENZ9711, DOBENZ8200, DOBENZ8210, DOBENZ7003, DOBENZ9802, DOBENZ9712, DOBENZ1014, DOBENZ1013, DOBENZ1015, DOBENZ4100, DOBENZ4110, DOBENZ2600, DOBENZ6803

**Revision**

4

**Revision Date**

12 Sep 2016

**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 Farenheit

**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 insoluable 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