

### 1. IDENTIFICATION

<b>Product Name</b>	<b>Boric Acid</b>
<b>Other Names</b>	Boracic Acid; BORIC ACID (H <sub>3</sub> BO <sub>3</sub> ); Borofax; Orthoboric Acid
<b>Uses</b>	Laboratory chemicals, Manufacture of substances
<b>Chemical Family</b>	No Data Available
<b>Chemical Formula</b>	H <sub>3</sub> BO <sub>3</sub>
<b>Chemical Name</b>	Boric Acid
<b>Product Description</b>	No Data Available

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

Organisation	Location	Telephone
Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Pty Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

### Emergency Contact Details

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

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

### 2. HAZARD IDENTIFICATION

**Poisons Schedule (Aust)** 5

### Globally Harmonised System

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

**Hazard Categories** Toxic To Reproduction - Category 1B

**Pictograms**



**Signal Word** Danger

**Hazard Statements** **H360FD** May damage fertility. May damage the unborn child.

<b>Precautionary Statements</b>	Prevention	<b>P201</b>	Obtain special instructions before use.
		<b>P202</b>	Do not handle until all safety precautions have been read and understood.
		<b>P281</b>	Use personal protective equipment as required.
	Response	<b>P308 + P313</b>	IF exposed or concerned: Get medical advice/ attention.
Storage	<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** 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>	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>6.8B</b>	Substances that are suspected human reproductive or developmental toxicants
Environmental Hazards	<b>9.1D</b>	Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action	

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Boric Acid (H3BO3)	No Data Available	10043-35-3	>99.9 %

## 4. FIRST AID MEASURES

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

**Swallowed** Rinse mouth with water. Give plenty of water to drink provided victim is conscious. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Seek medical attention immediately.

<b>Eye</b>	Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.
<b>Skin</b>	Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists. Wash clothing before re-use.
<b>Inhaled</b>	Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult give oxygen. Call a physician.
<b>Advice to Doctor</b>	Treat symptomatically based on judgement of doctor and individual reactions of patient. Observation only is required for adult ingestion of less than 6 grams of boric acid. For ingestion in excess of 6 grams, maintain adequate kidney function and force fluids. Gastric lavage is recommended for symptomatic patients only. Haemodialysis should be reserved for massive acute ingestion or patients with renal failure. Boron analyses of urine or blood are only useful for documenting exposure and should not be used to evaluate severity of poisoning or to guide treatment (see section 11).
<b>Medical Conditions Aggravated by Exposure</b>	Persons with pre-existing skin disorders or eye problems, or impaired liver, kidney or respiratory function may be more susceptible to the effects of the substance.

## 5. FIRE FIGHTING MEASURES

<b>General Measures</b>	Not considered to be a fire hazard. 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>	The product is itself a flame retardant.
<b>Extinguishing Media</b>	Use any means suitable for extinguishing surrounding fire.
<b>Fire and Explosion Hazard</b>	Boric acid is not flammable, combustible or explosive. A mixture of potassium and boric acid may explode on impact.
<b>Hazardous Products of Combustion</b>	No Data Available
<b>Special Fire Fighting Instructions</b>	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).
<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>	Avoid accidents, clean up immediately. Slippery when spilt. Eliminate all sources of ignition. Increase ventilation. Avoid generating dust. Stop leak if safe to do so. Isolate the danger area. Use clean, non-sparking tools and equipment.
<b>Clean Up Procedures</b>	Land spill: Vacuum, shovel or sweep up boric acid and place in containers for disposal in accordance with applicable local regulations. Avoid contamination of water bodies during clean up and disposal. Spillage into water: Where possible, remove any intact containers from the water. Advise local water authority that none of the affected water should be used for irrigation or for the abstraction of potable water until natural dilution returns the boron value to its normal environmental background level.
<b>Containment</b>	Stop leak if safe to do so. Isolate the danger area.
<b>Environmental Precautionary Measures</b>	Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management. Boric acid is water soluble. At high concentrations it may cause damage to trees or vegetation by root absorption (refer to section 12).
<b>Evacuation Criteria</b>	Evacuate all unnecessary personnel.
<b>Personal Precautionary Measures</b>	Wear appropriate personal protective equipment as specified in Section 8.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Protect against physical damage. Wash hands after handling this material. Avoid contact especially when skin is cut or abraded. Good housekeeping and dust prevention procedures should be followed to minimise dust generation and accumulation. 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. Avoid contact with eyes, skin and clothing. Do not inhale product dust/fumes. Your supplier can advise you on safe handling, please contact the supplier. The product should be kept away from strong reducing agents. Apply above handling advice when mixing with other substances. No special handling precautions are required.
<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. To maintain package integrity and to minimise caking of the product, bags should be handled on a first-in first out basis. Store under cold to warm conditions, 2 to 40 deg C. Use good housekeeping practices to prevent accumulation of dust and follow sound cleaning techniques that will keep airborne particulates at a low level. Dry indoor storage is recommended. Provide appropriate ventilation and store bags such as to prevent any accidental damage. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.
<b>Container</b>	Carbon steel or aluminium containers are suitable for storage. Stainless steel is needed for moist conditions. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>General</b>	No exposure standard has been established for this product by the Australian Safety and Compensation Council (ASCC). However, the exposure standard for dust not otherwise specified is 10mg/m <sup>3</sup> (for inspirable dust) and 3mg/m <sup>3</sup> (for respirable dust).
<b>Exposure Limits</b>	No Data Available
<b>Biological Limits</b>	No information available on biological limit values for this product.
<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, prevent dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, a Manual of Recommended Practices, most recent edition, for details. Maintain air concentrations below occupational exposure standards.
<b>Personal Protection Equipment</b>	<b>RESPIRATOR:</b> Where airborne concentrations are expected to exceed exposure limits, respirators should be used. For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (eg: lubricants, cutting fluids, glycerine, etc) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full face positive pressure, air supplied respirator. <b>Warning:</b> Air purifying respirators do not protect workers in oxygen deficient atmospheres (AS1715/1716). <b>EYES:</b> Use chemical safety goggles. Maintain eye wash fountain and quick drench facilities in work area (AS1336/1337). <b>HANDS:</b> Gloves (AS2161). <b>CLOTHING:</b> Lab coat, apron or coveralls and safety footwear (AS3765/2210).
<b>Work Hygienic Practices</b>	No Data Available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Solid
<b>Appearance</b>	Granular, Crystalline Solid
<b>Odour</b>	Odourless
<b>Colour</b>	White
<b>pH</b>	5.10 1.0% Aqueous Solution
<b>Vapour Pressure</b>	3.5 hPa (@ 20 °C)
<b>Relative Vapour Density</b>	No Data Available
<b>Boiling Point</b>	300 °C
<b>Melting Point</b>	160 °C

<b>Freezing Point</b>	No Data Available
<b>Solubility</b>	Soluble 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>	780-815 kg/m <sup>3</sup>
<b>Corrosion Rate</b>	No Data Available
<b>Decomposition Temperature</b>	No Data Available
<b>Density</b>	1.440 g/cm <sup>3</sup> Relative
<b>Specific Heat</b>	No Data Available
<b>Molecular Weight</b>	61.83 g/mol
<b>Net Propellant Weight</b>	No Data Available
<b>Octanol Water Coefficient</b>	No Data Available
<b>Particle Size</b>	No Data Available
<b>Partition Coefficient</b>	Log Kow (Pow): -1.09 @ 22 deg C
<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>	0 @ 21 deg C
<b>VOC Volume</b>	No Data Available
<b>Additional Characteristics</b>	No Data Available
<b>Potential for Dust Explosion</b>	Boric acid is not flammable, combustible or explosive. The product is itself a flame retardant.
<b>Fast or Intensely Burning Characteristics</b>	No Data Available
<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>	No Data Available
<b>Properties That May Initiate or Contribute to Fire Intensity</b>	A mixture of potassium and boric acid may explode on impact.
<b>Reactions That Release Gases or Vapours</b>	No Data Available
<b>Release of Invisible Flammable Vapours and Gases</b>	Reaction with strong reducing agents such as metal hydrides or alkali metals will generate hydrogen gas which could create an explosive hazard.

## 10. STABILITY AND REACTIVITY

<b>General Information</b>	Reactivity: Loses chemically combined water upon heating, forming metaboric acid (HBO <sub>2</sub> ) at 99-104 deg C, then pyroboric acid (H <sub>2</sub> B <sub>4</sub> O <sub>7</sub> ) at 139-158 deg C, and boric anhydride at higher temperatures. Boric acid reacts as a weak acid which may cause corrosion of base metals. Reaction with strong reducing agents such as metal hydrides or alkali metals will generate hydrogen gas which could create an explosive hazard.
<b>Chemical Stability</b>	Stable under ordinary conditions of use and storage. If moisture is present, boric acid can be corrosive to iron. Boric acid is a stable product, but when heated it loses water, first forming metaboric acid (HBO <sub>2</sub> ), and on further heating it is converted into boric oxide (B <sub>2</sub> O <sub>3</sub> ).
<b>Conditions to Avoid</b>	No Data Available
<b>Materials to Avoid</b>	Strong reducing agents (metal anhydrides or alkali metals), Potassium, acetic anhydride, alkalis, carbonates and hydroxides.
<b>Hazardous Decomposition Products</b>	Reaction with strong reducing agents such as metal hydrides or alkali metals will generate hydrogen gas which could create an explosive hazard.
<b>Hazardous Polymerisation</b>	Will not occur

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	<p>Oral LD50 Rat: 2660 mg/kg Oral LD50 Rat: 3500 - 4100 mg/Kg b/w Oral Woman LDLo: 200 mg/kg Inhalation Rat LC50: &gt; 2.0 mg/L (or g/m<sup>3</sup>)</p> <p>Skin corrosion / irritation: Low acute dermal toxicity; LD50 in rabbits is greater than 2000 mg/kg of body weight. Boric acid is poorly absorbed through intact skin. Investigated as a mutagen, tumorigen, reproductive effector.</p> <p>Serious eye damage/ irritation: Boric acid indicate no adverse effects on human eye.</p> <p>Chronic Exposure: Toxicity reported for borates in humans: ingestion or absorption may cause nausea, vomiting, diarrhea, abdominal cramps, and erythematous lesions on the skin and mucous membranes. Other symptoms include: circulatory collapse, tachycardia, cyanosis, delirium, convulsions, and coma. Death has been reported to occur in infants from less than 5 grams and in adults from 5 to 20 grams. Liver - Irregularities - Based on Human Evidence</p>
<b>Eye/Irritant</b>	Causes irritation, redness and pain.
<b>Ingestion</b>	ingestion or absorption may cause nausea, vomiting, diarrhoea, abdominal cramps, and erythematous lesions on the skin and mucous membranes. Other symptoms include: circulatory collapse, tachycardia, cyanosis, delirium, convulsions, and coma. Death has been reported to occur in infants from less than 5 grams and in adults from 5 to 20 grams.
<b>Inhalation</b>	Inhalation is the most significant route of exposure in occupational and other settings. Occasional mild irritation effects to nose and throat may occur from inhalation of boric acid dusts at levels greater than 10 mg/m <sup>3</sup> . Causes irritation to the mucous membranes of the respiratory tract. May be absorbed from the mucous membranes, and depending on the amount of exposure could result in the development of nausea, vomiting, diarrhea, drowsiness, rash, headache, fall in body temperature, low blood pressure, renal injury, cyanosis, coma and death.
<b>Skin/Irritant</b>	Causes skin irritation. Not significantly absorbed through the intact skin. Symptoms of accidental over-exposure to Boric Acid have been associated with absorption through large areas of damaged or burned skin. Symptoms of skin absorption parallel inhalation and ingestion. These may include delayed effects of skin redness and peeling. Boric acid is not a skin sensitizer.
<b>Reproduction</b>	Fetotoxicity : Presumed human reproductive toxicant. May damage fertility or the unborn child.
<b>Carcinogen Category</b>	No Data Available

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	<p>Toxicity: Large amounts of Boric Acid can be harmful to plants and other species. Therefore, releases to the environment should be minimized. Boron occurs naturally in sea water at an average concentration of 5 mg B/l and fresh water at 1 mg B/l or less. In dilute aqueous solutions the predominant boron species present is undissociated boric acid. To convert boric acid into equivalent boron (B) content, multiply by 0.1748.</p> <p>Phytotoxicity: Boron is an essential micronutrient for healthy growth of plants, however, it can be harmful to boron sensitive plants in higher quantities. Care should be taken to minimise the amount of borate product released to the environment.</p> <p>Algal toxicity: Green algae, <i>Pseudokirchneriella subcapitata</i> (Hansveit and Oldersma, 2000) 72-hr EC50 -biomass = 40 mg B/L, or 229 mg boric acid/L.</p> <p>Invertebrate toxicity: Daphnia, Daphnids, <i>Daphnia magna</i> (Gersich, 1984a) 48-hr LC50 = 133 mg B/L or 760 mg boric acid/L or 619 mg disodium tetraborate, anhydrous/L</p> <p>Fish toxicity: Fish, Fathead minnow, <i>Pimephales promelas</i> (Soucek et al., 2010) 96-hr LC50 = 79.7 mg B/L or 456 mg boric acid/L or 370 mg disodium tetraborate, anhydrous</p>
<b>Persistence/Degradability</b>	Boron is naturally occurring and ubiquitous in the environment. Boric acid decomposes in the environment to natural borate.

<b>Mobility</b>	The product is soluble in water and is leachable through normal soil. At high concentrations it may cause damage to trees or vegetation by root absorption.
<b>Environmental Fate</b>	Do NOT let product reach waterways, drains and sewers.
<b>Bioaccumulation Potential</b>	Not significantly bioaccumulative.
<b>Environmental Impact</b>	No Data Available

### 13. DISPOSAL CONSIDERATIONS

<b>General Information</b>	Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.
<b>Special Precautions for Land Fill</b>	Small quantities of boric acid can usually be disposed of at landfill sites. No special disposal treatment is required, but local authorities should be consulted about any specific local requirements. Tonnage quantities of product are not recommended to be sent to landfills. Such product should, if possible, be used for an appropriate application.

### 14. TRANSPORT INFORMATION

#### Land Transport (Australia)

ADG Code

<b>Proper Shipping Name</b>	Boric Acid
<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

#### Land Transport (Malaysia)

ADR

<b>Proper Shipping Name</b>	Boric Acid
<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

#### Land Transport (New Zealand)

NZS5433

<b>Proper Shipping Name</b>	Boric Acid
<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

### Land Transport (United States of America)

US DOT

<b>Proper Shipping Name</b>	Boric Acid
<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

### Sea Transport

IMDG Code

<b>Proper Shipping Name</b>	Boric Acid
<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

### Air Transport

IATA DGR

<b>Proper Shipping Name</b>	Boric Acid
<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

### National Transport Commission (Australia)

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

<b>Dangerous Goods Classification</b>	NOT 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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## 15. REGULATORY INFORMATION

<b>General Information</b>	No Data Available
<b>Poisons Schedule (Aust)</b>	5



## Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

**Approval Code** HSR002995

### National/Regional Inventories

<b>Australia (AICS)</b>	Listed
<b>Canada (DSL)</b>	Not Determined
<b>Canada (NDSL)</b>	Not Determined
<b>China (IECSC)</b>	Listed
<b>Europe (EINECS)</b>	233-139-2
<b>Europe (REACH)</b>	Registered
<b>Japan (ENCS/METI)</b>	Listed
<b>Korea (KECI)</b>	Listed
<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>	Not Determined

## 16. OTHER INFORMATION

**Related Product Codes** BOACID1000, BOACID1001, BOACID1002, BOACID1003, BOACID1004, BOACID1005, BOACID1006, BOACID1007, BOACID1008, BOACID1009, BOACID1100, BOACID1200, BOACID1201, BOACID1202, BOACID1203, BOACID1204, BOACID1205, BOACID1206, BOACID1207, BOACID1300, BOACID1301, BOACID1400, BOACID1500, BOACID1501, BOACID1502, BOACID1503, BOACID1504, BOACID1505, BOACID1506, BOACID1600, BOACID1601, BOACID1602, BOACID1603, BOACID1604, BOACID1700, BOACID1701, BOACID1702, BOACID1800, BOACID1801, BOACID1802, BOACID1803, BOACID1804, BOACID1805, BOACID1806, BOACID1807, BOACID1808, BOACID1809, BOACID1810, BOACID1811, BOACID1812, BOACID1813, BOACID1900, BOACID1901, BOACID2000, BOACID2001, BOACID2002, BOACID2003, BOACID2100, BOACID2200, BOACID2300, BOACID2400, BOACID2401, BOACID2500, BOACID2600, BOACID2700, BOACID2800, BOACID2900, BOACID3000, BOACID3001, BOACID3200, BOACID3300, BOACID3500, BOACID3700, BOACID3701, BOACID3800, BOACID4000, BOACID4001, BOACID4002, BOACID4003, BOACID4100, BOACID4200, BOACID4400, BOACID4500, BOACID4501, BOACID4800, BOACID4900, BOACID5000, BOACID5100, BOACID5500, BOACID6000, BOACID6500, BOACID6900, BOACID7000, BOACID7001, BOACID7100, BOACID7200, BOACID7300, BOACID7301, BOACID7302, BOACID7303, BOACID7304, BOACID7400, BOACID7401, BOACID7500, BOACID7501, BOACID7502, BOACID7503, BOACID7505, BOACID7600, BOACID7601, BOACID7602, BOACID7620, BOACID7622, BOACID7630, BOACID7700, BOACID7701, BOACID7702, BOACID7703, BOACID7704, BOACID7705, BOACID7706, BOACID7707, BOACID7708, BOACID7709, BOACID7710, BOACID7711, BOACID7712, BOACID7713, BOACID7714, BOACID7715, BOACID7716, BOACID7717, BOACID7718, BOACID7719, BOACID7720, BOACID7721, BOACID7722, BOACID7723, BOACID7724, BOACID7800, BOACID8000, BOACID8001, BOACID8002, BOACID8003, BOACID8004, BOACID8500, BOACID8800, BOACID9000, BOACID9001, BOACID9100, BOACID9200, BOACID9201, BOACID9300, BOACID9301,

<b>Revision</b>	3
<b>Revision Date</b>	12 Jun 2014
<b>Reason for Issue</b>	Updated SDS
<b>Key/Legend</b>	<p>&lt; Less Than &gt; 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 Farenheit <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>LC<sub>50</sub></b> LC stands for lethal concentration. LC<sub>50</sub> 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>LD<sub>50</sub></b> LD stands for Lethal Dose. LD<sub>50</sub> 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</b> or <b>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</b> or <b>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 <b>UN</b> United Nations <b>wt</b> Weight</p>