

# **1. IDENTIFICATION**

Product Name	Acetic Acid Solution (>=50% - <=80%)
Other Names	Acetic Acid 75% Solution; Acetic acid solution (70-80%); ACETIC ACID SOLUTION not less than 50% but not more than 80% acid, by mass
Uses	Chemicals manufacturing; photographic chemicals; acidifier; textile printing; solvent; dyes; antimicrobial agent; pharmaceuticals; preservative in foods and cosmetic use.
Chemical Family	No Data Available
Chemical Formula	C2H402
Chemical Name	Acetic acid, aqueous solution (>=50% - <=80%)
Product Description	No Data Available

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

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

## **Emergency Contact Details**

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

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

## 2. HAZARD IDENTIFICATION

Redox Ltd Corporate Office Sydney Locked Bag 15 Minto NSW 2566 Australia 2 Swettenham Road Minto NSW 2566 Australia All Deliveries: 4 Holmes Road Minto NSW 2566 Australia

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Australia New Zealand Adelaide Auckland Christchurch Brisbane Melbourne Hawke's Bay Perth UK London Sydney

Malaysia Kuala Lumpur USA Los Angeles Oakland Mexico Saltillo



Poisons Schedule (Aust)		Schedule 5	
Globally Harmonised Syste	em		
Hazard Classification		Hazardous according to Chemicals (GHS)	o the criteria of the Globally Harmonised System of Classification and Labelling of
Hazard Categories		Flammable Liquids - Ca	itegory 4
-		Corrosive to Metals - Ca	ategory 1
		Acute Toxicity (Oral) - C	ategory 5
		Acute Toxicity (Dermal)	- Category 4
		Skin Corrosion/Irritatior	n - Category 1B
		Serious Eye Damage/Irr	ritation - Category 1
Pictograms			!
Signal Word		Danger	
Hazard Statements		H227	Combustible liquid.
		H290	May be corrosive to metals.
		H303	May be harmful if swallowed.
		H312	Harmful in contact with skin.
		H314	Causes severe skin burns and eye damage.
		NZ9.3	Hazardous to terrestrial vertebrates
Precautionary Statements	Prevention	P210	Keep away from flames and hot surfaces. No smoking.
		P260	Do not breathe mist/vapour/spray.
		P234	Keep only in original packaging.
		P280	Wear protective gloves/protective clothing/eye protection/face protection and suitable respirator.
	Response	P370 + P378	In case of fire: Use carbon dioxide (CO2), dry chemical or alcohol resistant foam for extinction.
		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.
		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.
		P390	Absorb spillage to prevent material-damage.
	Storage	P403 + P235	Store in a well-ventilated place. Keep cool.
		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)

### Safe Work Australia

National Guide for Classifying Hazardous Chemicals under the Model WHS Regulations

**Hazard Classification** 

Hazardous according to the criteria of Safe Work Australia under Model WHS Regulations

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

### Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Acetic acid	C2H4O2	64-19-7	>=50 - <=80 %
Water	H2O	7732-18-5	>=20 - <=50 %

### **4. FIRST AID MEASURES**

Description of necessary measures	according to routes of exposure
Swallowed	IF SWALLOWED: Rinse mouth, then drink plenty of water. Do NOT induce vomiting. For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor. 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 (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor, or for at least 15 minutes.
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. For skin burns, cover with a clean, dry dressing until medical help is available.
Inhaled	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Remove contaminated clothing and loosen remaining clothing. 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	Immediate medical attention is required! Treat symptomatically. Keep victim calm and warm. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Show this safety data sheet (SDS) to the doctor in attendance. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. *Most important symptoms and effects, both acute and delayed: The substance is corrosive to the eyes, skin and respiratory tract. Corrosive on ingestion. Inhalation may cause lung oedema.
Medical Conditions Aggravated by Exposure	No information available.

# **5. FIRE FIGHTING MEASURES**

General Measures	Fight fire from a safe distance, with adequate cover. 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.
Flammability Conditions	Combustible liquid; may burn but does not ignite readily.
Extinguishing Media	Use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction. Do not use a solid water stream as it may scatter and spread fire.
Fire and Explosion Hazard	When heated, vapours may form explosive mixtures with air: indoors, outdoors and sewers explosion hazards! Contact with metals may evolve flammable hydrogen gas. Containers may explode when heated. Fire exposed containers may vent contents through pressure relief valves.
Hazardous Products of Combustion	Fire may produce irritating, corrosive and/or toxic gases.
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	>60 - <=93 °C
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	No Data Available
Hazchem Code	2R

### 6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation - Ventilate enclosed areas before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material - Slippery when spilt. Avoid accidents, clean up immediately! Do not breathe vapours and prevent contact with eyes, skin and clothing.
Clean Up Procedures	Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers for disposal (see SECTION 13). *Use spark-proof tools and explosion-proof equipment.
Containment	Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas.
Decontamination	Neutralise residues with lime or soda ash. Wash area down with excess water.
Environmental Precautionary Measures	Decontamination run-off may be washed to drains with large quantities of water. Due care must however still be exercised to avoid unnecessary pollution of watercourses. If contamination of sewers or waterways has occurred advise local emergency services.
Evacuation Criteria	Spill or leak area should be isolated immediately. Evacuate personnel to safe areas. Keep unauthorised personnel away. Keep upwind and to higher ground. *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, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice. Do not breathe mist/vapour/spray and prevent contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection and suitable respirator (see SECTION 8). Combustible liquid: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Take precautionary measures against static discharges. Corrosive to metals: Absorb spillage to prevent material damage (see SECTION 6). Storage Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed - check regularly for leaks. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - 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 Acetic acid (CAS No. 64-19-7): - Safe Work Australia Exposure Standard: TWA = 10 ppm (25 mg/m3); STEL = 15 ppm (37 mg/m3). - New Zealand Workplace Exposure Standards: TWA = 10 ppm (25 mg/m3); STEL = 15 ppm (37 mg/m3). - NIOSH REL: TWA = 10 ppm (25 mg/m3); ST = 15 ppm (37 mg/m3). - OSHA PEL: TWA = 10 ppm (25 mg/m3). *Immediately dangerous to life or health (IDLH) concentration: 50 ppm.
Exposure Limits	No Data Available
Biological Limits	No information available.
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. *Use explosion-proof electrical/ventilating/lighting/equipment.
Personal Protection Equipment	<ul> <li>Respiratory protection: Wear respiratory protection if exposure limits are exceeded or if irritation or other symptoms are experienced. Recommended: Use a full face respirator with multi-purpose combination or type AXBEK respirator cartridges (refer to AS/NZS 1715 &amp; 1716).</li> <li>Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Tightly fitting safety goggles.</li> <li>Hand protection: Wear protective gloves. Recommended: Elbow-length impervious gloves.</li> <li>Skin/body protection: Wear appropriate personal protective clothing to prevent skin contact. Recommended: Wear fire/flame resistant/retardant clothing and antistatic boots.</li> </ul>
Special Hazards Precaustions	Classified as a C1 Combustible liquid for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Transparent liquid
Odour	Pungent
Colour	Colourless
рН	<=2
Vapour Pressure	1.5 kPa (75% soln.) (@ 20 °C)
Relative Vapour Density	>1 Air = 1
Boiling Point	103 - 108 °C
Melting Point	No Data Available
Freezing Point	>=16.45 °C
Solubility	Miscible with water
Specific Gravity	1.061 - 1.072 (75% soln.)
Flash Point	>60 - <=93 °C
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	No Data Available
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
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected.
Potential for Dust Explosion	Not applicable.
Fast or Intensely Burning Characteristics	No information available.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No information available.
Properties That May Initiate or Contribute to Fire Intensity	Combustible liquid; may burn but does not ignite readily.
Reactions That Release Gases or Vapours	Fire/decomposition may produce irritating, corrosive and/or toxic gases.
Release of Invisible Flammable Vapours and Gases	When heated, vapours may form explosive mixtures with air: indoors, outdoors and sewers explosion hazards! Contact with metals may evolve flammable hydrogen gas.

### **10. STABILITY AND REACTIVITY**

General Information	Contact with incompatible substances can cause decomposition or other chemical reactions. May be corrosive to metals.	
Chemical Stability	Stable under proper operation and storage conditions.	
Conditions to Avoid	Avoid contact with incompatible substances. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.	
Materials to Avoid	Incompatible/reactive with caustic soda, lime, amines, strong alkalis, metals, oxidising agents, metal alkoxides, furfuryl alcohol, acetaldehyde, nitric acid, nitrate, nitrite, oxyacid salt halogen and inorganic peroxide, sodium, calcium, and other active metal, halogen, metal oxide, non-metal oxide, acyl halide and metal phosphide.	
Hazardous Decomposition Products	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Fire/decomposition may produce irritating, corrosive and/or toxic gases. Contact with metals may evolve flammable hydrogen gas.	
Hazardous Polymerisation	Hazardous polymerisation will not occur.	

# **11. TOXICOLOGICAL INFORMATION**

### **General Information**

Information on toxicological effects:

- Acute toxicity: May be harmful if swallowed. Harmful in contact with skin. Severe health effects, mainly due to the local corrosive effects of the chemical leading to systemic effects.

	- Skin corrosion/irritation: Causes severe skin burns and eye damage.
	- Eye damage/irritation: Causes serious eye damage.
	- Respiratory/skin sensitisation: No information available.
	- Germ cell mutagenicity: Acetic acid is not considered to be genotoxic.
	- Carcinogenicity: Acetic acid is not likely to be carcinogenic.
	- Reproductive toxicity: Acetic acid does not show specific reproductive or developmental toxicity.
	- STOT (single exposure): Breathing in mists or aerosols may produce respiratory irritation. Breathing in vapour can result in headaches, dizziness, possible nausea and irritation to the respiratory tract.
	- STOT (repeated exposure): Results from repeated oral, inhalation and dermal exposure of humans to the chemical has
	been reported with effects on the gastrointestinal tract, digestive disorders, including heartburn and constipation, chronic
	inflammation of the respiratory tract, pharyngitis, catarrhal bronchitis, darkening of skin, skin dermatitis, and erosion of
	the exposed front teeth enamel. In addition, skin on the paints of hands can become dry, cracked and hyperkeratouc.
	Aspiration toxicity: No information available
	- Aspiration toxicity. No information available.
	Information on likely routes of exposure:
	<ul> <li>Ingestion: May be harmful if swallowed. Corrosive on ingestion. Ingestion may result in severe corrosion of the mouth, perforation of the oesophagus, severe corrosion of the gastrointestinal tract, bloody vomiting, diarrhoea, shock, haemolysis, haemoglobinuria and death.</li> </ul>
	- Eye contact: Corrosive! Contamination of eyes can result in permanent injury.
	- Skin contact: Harmful in contact with skin. Corrosive! Causes skin burns. Repeated or prolonged contact of the chemical with the skin may cause dermatitis.
	- Inhalation: Vapours, mists or aerosols of the chemical may cause respiratory irritation and can also damage nose, throat
	Chronic effects: Chronic overexposure to acetic acid may result in pharynoitis catarrhal bronchitis and erosion of the
	teeth. These observed effects could be due to its corrosive activity.
Acute	
Ingestion	Acute toxicity (Oral): COMPONENT: Acetic acid, glacial (CAS No. 64-19-7): - LD50, Rat: 3,310 mg/kg [Supplier's SDS].
	- LD50, Rat: >2,000 mg/kg bw. [NICNAS].
Other	Acute toxicity (Dermal): COMPONENT: Acetic acid, glacial (CAS No. 64-19-7): - LD50, Rabbit: 1,130 mg/kg [Supplier's SDS]. - LD50, Rabbit: 1,060 mg/kg bw. [NICNAS]
Carcinogon Catagon	Nono
Carcinogen Category	NUTIE

# **12. ECOLOGICAL INFORMATION**

Ecotoxicity	Aquatic toxicity: COMPONENT: Acetic acid, glacial (CAS No. 64-19-7): - LC50, Fish: 88 mg/L (96 h) [Supplier's SDS]. - EC50, Crustacea: 65 mg/L (48 h) [Supplier's SDS].
Persistence/Degradability	No information available.
Mobility	No information available.
Environmental Fate	Prevent entry into drains and waterways.
<b>Bioaccumulation Potential</b>	No information available.
Environmental Impact	No Data Available

# **13. DISPOSAL CONSIDERATIONS**

### **General Information**

Dispose of contents/container in accordance with local/regional/national regulations. Incineration disposal is recommended for waste chemicals.

Contaminated packaging: Containers may still present a chemical hazard when empty. Keep away from heat and sources

Special Precautions for Land Fill of ignition. Recycle, if possible.

# **14. TRANSPORT INFORMATION**

<b>Land Transport (Australia)</b> ADG Code	
Proper Shipping Name	ACETIC ACID SOLUTION not less than 50% but not more than 80% acid, by mass
Class	8 Corrosive Substances
Subsidiary Risk(s)	C1 Combustible Liquids - Flash Point >60°C - <=93°C, Closed Cup
EPG	36 Toxic And/Or Corrosive Substances Combustible
UN Number	2790
Hazchem	2R
Pack Group	I
Special Provision	No Data Available
<b>Land Transport (Malaysia)</b> ADR Code	
Proper Shipping Name	ACETIC ACID SOLUTION, not less than 50% but not more than 80% acid, by mass
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	36 Toxic And/Or Corrosive Substances Combustible
UN Number	2790
Hazchem	2R
Pack Group	II
Special Provision	No Data Available
Land Transport (New Zealand) NZS5433	
Proper Shipping Name	ACETIC ACID SOLUTION not less than $50\%$ but not more than $80\%$ acid, by mass
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	36 Toxic And/Or Corrosive Substances Combustible
UN Number	2790
Hazchem	2R
Pack Group	II
Special Provision	No Data Available
Land Transport (United States of America) US DOT	
Proper Shipping Name	ACETIC ACID SOLUTION not less than $50\%$ but not more than $80\%$ acid, by mass
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
ERG	153 Substances - Toxic and/or Corrosive (Combustible)

2790

**UN Number** 

Hazchem	2R
Pack Group	I
Special Provision	No Data Available
Sea Transport IMDG Code	
Proper Shipping Name	ACETIC ACID SOLUTION not less than 50% but not more than 80% acid, by mass
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
UN Number	2790
Hazchem	2R
Pack Group	I
Special Provision	No Data Available
EMS	F-A, S-B
Marine Pollutant	No
<b>Air Transport</b> IATA DGR	
Proper Shipping Name	ACETIC ACID SOLUTION not less than 50% but not more than 80% acid, by mass
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
UN Number	2790
Hazchem	2R
Pack Group	I
Special Provision	No Data Available
National Transport Commission (Australia Australian Code for the Transport of Danger	<b>a)</b> rous 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	ACETIC ACID in preparations containing more than 30% of acetic acid (CH3COOH), except when included in Schedule 2
	or 6, or for therapeutic use.
Delever Cale dela (Assal)	

Poisons Schedule (Aust) Schedule 5

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

Hazardous Substances and New Organisms Amendment Act 2015

Listed

Approval Code HSR001580

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Australia (AIIC)

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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)	Listed
Malaysia (EHS Register)	Not Determined
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	ACACID0055, ACACID0075, ACACID0175, ACACID0470, ACACID0500, ACACID0600, ACACID0900, ACACID1032, ACACID1033, ACACID1038, ACACID1039, ACACID1042, ACACID1043, ACACID1060, ACACID1136, ACACID1139, ACACID1200, ACACID1210, ACACID1400, ACACID1410, ACACID1420, ACACID1425, ACACID1460, ACACID1700, ACACID1725, ACACID1726, ACACID1775, ACACID1804, ACACID1805, ACACID1817, ACACID1818, ACACID1834, ACACID1835, ACACID1836, ACACID1837, ACACID1851, ACACID1852, ACACID1864, ACACID1865, ACACID1875, ACACID1877, ACACID1877, ACACID1879, ACACID1852, ACACID1864, ACACID1882, ACACID1875, ACACID1876, ACACID1877, ACACID1878, ACACID1879, ACACID1880, ACACID1881, ACACID1882, ACACID1884, ACACID1901, ACACID1902, ACACID1910, ACACID1911, ACACID1912, ACACID1916, ACACID1918, ACACID1921, ACACID1924, ACACID1901, ACACID1902, ACACID1935, ACACID1940, ACACID1944, ACACID1950, ACACID1975, ACACID1927, ACACID1928, ACACID1999, ACACID2002, ACACID2010, ACACID2600, ACACID2700, ACACID200, ACACID4201, ACACID5200, ACACID5400, ACACID5800, ACACID5801, ACACID700, ACACID700, ACACID7200, ACACID7300, ACACID7301, ACACID7400, ACACID7401, ACACID7500, ACACID7500, ACACID7501, ACACID7502, ACACID7505, ACACID7511, ACACID7513, ACACID7516, ACACID7520, ACACID7560, ACACID7600, ACACID7700, ACACID7701, ACACID7702, ACACID7800, ACACID8050, ACACID8800, ACACID8801, ACACID9000, ACACID9001, ACACID9200, ACACID9201, ACACID9200, ACACID9200, ACACID800, ACACID800, ACACID8801, ACACID8200, ACACID8201, ACACID9200, ACACID800, ACACID8800, ACACID8801, ACACID9000, ACACID9001, ACACID9200, ACACID9200, ACACID9200, ACACID8000, ACACID8000, ACACID800, ACACID8000, ACACID800, ACACIL8200, ACACIL8201, ACACIL8300, ACACIL8400
Revision	5
Revision Date	05 Sep 2023
Key/Legend	< Less Than > Greater Than AICS Australian Inventory of Chemical Substances atm Atmosphere CAS Chemical Abstracts Service (Registry Number) cm² 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/cm<sup>3</sup> 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/m<sup>3</sup> 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 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 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