SAFETY DATA SHEET
FORMIC ACID (>85-100%)
REVISION 7, DATE 12 JUN 2023

1. IDENTIFICATION

Product Name	**Formic acid (>85-100%)**
Other Names	Aminic acid; FORMIC ACID with more than 85% acid by mass; Hydrogen carboxylic acid; Methanoic acid
Uses	Preservative; Fragrance compound; pH adjuster; Paint strippers; Cleaning products; Fabric softeners; Decalcifier; Wool dyeing; Leather tanning; Corrosion inhibitors; Manufacture of refrigerants and other commercial chemicals including cellulose formate and vinyl resin plasticisers.
Chemical Family	No Data Available
Chemical Formula	CH2O2
Chemical Name	Formic acid (>85-100%)
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	Suite 13A.03, Menara Summit Persiaran Kewajipan USJ1 47600 UEP Subang Jaya Selangor, 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	Australia – Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
National Poison Centre	Malaysia	+60-4-6536-999
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 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

Flammable Liquids - Category 3
Corrosive to Metals - Category 1
Acute Toxicity (Oral) - Category 4
Acute Toxicity (Inhalation) - Category 3
Skin Corrosion/Irritation - Category 1B
Serious Eye Damage/Irritation - Category 1
Specific Target Organ Toxicity (Single Exposure) - Category 3

Pictograms

Signal Word Danger

Hazard Statements

H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
AUH071	Corrosive to the respiratory tract

Precautionary Statements

Prevention	**P260**	Do not breathe mist/vapour/spray.
	P240	Ground and bond container and receiving equipment.
	P241	Use explosion-proof electrical/ventilating/lighting and all other equipment.
	P242	Use non-sparking tools.
	P243	Take action to prevent static discharges.
	P235	Keep cool.
	P270	Do not eat, drink or smoke when using this product.
	P271	Use only outdoors or in a well-ventilated area.
	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P280	Wear protective gloves/protective clothing/eye protection/face protection and suitable respirator.
Response	**P370 + P378**	In case of fire: Alcohol resistant foam is the preferred fire-fighting medium. However, if it is not available, fine water spray or water fog can be used to extinguish.
	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.
	P304 + P340	IF INHALED: Remove victim to fresh air and keep comfortable for breathing.
	P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

	P363	Wash contaminated clothing before reuse.
	P390	Absorb spillage to prevent material-damage.
Storage	**P403 + P233**	Store in a well-ventilated place. Keep container tightly closed.
	P405	Store locked up.
	P406	Store in corrosive resistant container with a resistant inner liner.
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
Formic acid	CH2O2	64-18-6	>85 - <=100 %
Water	H2O	7732-18-5	<15 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth, then drink 1 or 2 glasses 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 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 (and soap, if available) for at least 15 minutes. 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.
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	Keep victim calm and warm. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves. Inhalation of the vapour may cause lung oedema. The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Immediate administration of an appropriate inhalation therapy by a doctor, or by an authorized person, should be considered.

	*Most important symptoms and effects, both acute and delayed: Harmful if swallowed. Causes severe skin burns and eye damage. Toxic if inhaled. May cause respiratory irritation. Corrosive to the respiratory tract!
Medical Conditions Aggravated by Exposure	No information available.

5. FIRE FIGHTING MEASURES

General Measures	Move containers from fire area if you can do it without risk. Cool containers with water spray until well after fire is out. Do not get water inside containers. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire.
Flammability Conditions	FLAMMABLE LIQUID & VAPOUR: May be ignited by heat, sparks or flames.
Extinguishing Media	Use dry chemical, Carbon dioxide (CO2), alcohol-resistant foam or water spray for extinction. Dike fire-control water for later disposal; do not scatter the material.
Fire and Explosion Hazard	Risk of violent reaction or explosion! 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.
Hazardous Products of Combustion	Fire may produce irritating, corrosive and/or toxic gases, including Carbon oxides.
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	49.5 °C [Closed cup]
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	528 °C
Hazchem Code	•2W

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. Do not breathe mist/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). *DO NOT get water inside containers.
Containment	Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas.
Decontamination	Wash area down with excess water.
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 & unprotected 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 - Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice. Handle and open containers with care. Do not breathe mist/vapours 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). FLAMMABLE LIQUID & VAPOUR: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Ground and bond container and receiving equipment. Use explosion-proof equipment and non-sparking tools. Take action to prevent static discharges.
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed and protect against physical damage. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Keep away from food/feedstuffs and incompatible materials (see SECTION 10). Store locked up.
Container	Keep only in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	For Formic acid (CAS No. 64-18-6): - Safe Work Australia Exposure Standard: TWA = 5 ppm (9.4 mg/m3); STEL = 10 ppm (19 mg/m3). - New Zealand Workplace Exposure Standard: TWA = 5 ppm (9.4 mg/m3); STEL = 10 ppm (19 mg/m3). - NIOSH REL/OSHA PEL: TWA = 5 ppm (9 mg/m3). *Immediately dangerous to life or health (IDLH) concentration: 30 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	- Respiratory protection: Wear respiratory protection in case of inadequate ventilation or exposure to mist/vapours. Recommended: Full facepiece Acid gas/Formaldehyde respirator or air-supplied respirator (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Tight sealing safety goggles. If splashes are likely to occur, face protection shield. Chemical goggles and face shield are not required if wearing an air-supplied mask. - Hand protection: Wear protective gloves. Recommended: Elbow-length impervious gloves. - Skin/body protection: Wear appropriate personal protective clothing to prevent skin contact. Recommended: Overalls, rubber boots, chemical-resistant apron.
Special Hazards Precaustions	No information available.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. Hands and face should be washed before breaks and at the end of the shift. Remove contaminated clothing and shoes immediately and wash before storage or reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Liquid
Odour	Pungent/fuming
Colour	Colourless to yellow
pH	2.2 (10 g/l) 20 °C
Vapour Pressure	42.71 mbar (@ 20 °C)
Relative Vapour Density	1.6 Air = 1
Boiling Point	100.23 °C
Melting Point	8 °C
Freezing Point	No Data Available
Solubility	Miscible with water - Miscible with alcohol, ether and glycerol

Specific Gravity	1.2195 (90%)
Flash Point	49.5 °C [Closed cup]
Auto Ignition Temp	528 °C
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	350 °C
Density	1.2196 g/cm3
Specific Heat	No Data Available
Molecular Weight	46.03 g/mol
Net Propellant Weight	No Data Available
Octanol Water Coefficient	log Pow: -2.1 (23 °C; pH 7)
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	0.98 mm2/s (@ 40 °C)
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No information available.
Potential for Dust Explosion	Not applicable.
Fast or Intensely Burning Characteristics	Risk of violent reaction or explosion!
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	FLAMMABLE LIQUID & VAPOUR: May be ignited by heat, sparks or flames.
Reactions That Release Gases or Vapours	Fire/decomposition may produce irritating, corrosive and/or toxic gases, including Carbon oxides.
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	Decomposes on heating and on contact with strong acids; This produces carbon monoxide. The substance is a medium strong acid. Reacts violently with oxidants and strong bases; This generates fire and explosion hazard (exothermic reaction). Reacts with amines. Attacks many plastics and metals. The formation of gaseous decomposition products builds up pressure in tightly closed containers.
Chemical Stability	Stable under normal use conditions.
Conditions to Avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
Materials to Avoid	Incompatible/reactive with oxidisers, bases (alkalis and alkalising substances), non-coated metals, base metals.
Hazardous Decomposition Products	Fire/decomposition may produce irritating, corrosive and/or toxic gases, including Carbon oxides.
Hazardous Polymerisation	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

General Information

Information on toxicological effects:
- Acute toxicity: Harmful if swallowed. Toxic if inhaled.
- Skin corrosion/irritation: Causes severe skin burns and eye damage.
- Eye damage/irritation: Causes serious eye damage.
- Respiratory/skin sensitisation: Not shown to be a (skin) sensitiser.
- Germ cell mutagenicity: The chemical is not considered to be genotoxic.
- Carcinogenicity: No evidence of (increased) carcinogenicity.
- Reproductive toxicity: No evidence of reproductive effects.
- STOT (single exposure): May cause respiratory irritation..
- STOT (repeated exposure): No significant evidence of systemic toxicity; effects observed were due to the corrosive nature of the chemical.
- Aspiration toxicity: No aspiration hazard expected.

Information on likely routes of exposure:
- Ingestion: Harmful if swallowed. Corrosive on ingestion! Can burn mouth, throat, and stomach.
- Eye contact: Causes serious eye damage including blindness.
- Skin contact: Causes severe skin burns; pain, blisters.
- Inhalation: Toxic if inhaled. Corrosive to the respiratory tract. Inhalation of the vapour may cause lung oedema.

Chronic effects: No information available.

Acute

Ingestion

Acute toxicity (Oral):
COMPONENT: Formic acid (CAS No. 64-18-6):
- LD50, Rat: 730 mg/kg bw.

Inhalation

Acute toxicity (Inhalation):
COMPONENT: Formic acid (CAS No. 64-18-6):
- LC50, Rat: 7.85 mg/L (4 h) [vapour]

Carcinogen Category

None

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Persistence/Degradability

Readily biodegradable.

Mobility

The substance will not evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is not expected.

Environmental Fate

The product gives rise to pH shifts.

Bioaccumulation Potential

Significant accumulation in organisms is not to be expected.

Environmental Impact

No Data Available

13. DISPOSAL CONSIDERATIONS

General Information

Dispose of material through a licensed waste contractor and in accordance with local/regional/national regulations.

Special Precautions for Land Fill

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

Land Transport (Australia)
ADG Code

Proper Shipping Name	FORMIC ACID with more than 85% acid by mass
Class	8 Corrosive Substances
Subsidiary Risk(s)	3 Flammable Liquids
EPG	153 Substances - Toxic and_or Corrosive (Combustible)
UN Number	1779
Hazchem	•2W
Pack Group	II
Special Provision	No Data Available

Land Transport (Malaysia)
ADR Code

Proper Shipping Name	FORMIC ACID with more than 85% acid by mass
Class	8 Corrosive Substances
Subsidiary Risk(s)	3 Flammable Liquids
EPG	153 Substances - Toxic and_or Corrosive (Combustible)
UN Number	1779
Hazchem	2W
Pack Group	II
Special Provision	No Data Available

Land Transport (New Zealand)
NZS5433

Proper Shipping Name	FORMIC ACID with more than 85% acid by mass
Class	8 Corrosive Substances
Subsidiary Risk(s)	3 Flammable Liquids
EPG	153 Substances - Toxic and_or Corrosive (Combustible)
UN Number	1779
Hazchem	2W
Pack Group	II
Special Provision	No Data Available

Land Transport (United States of America)
US DOT

Proper Shipping Name	FORMIC ACID with more than 85% acid by mass
Class	8 Corrosive Substances
Subsidiary Risk(s)	3 Flammable Liquids
ERG	153 Substances - Toxic and/or Corrosive (Combustible)
UN Number	1779
Hazchem	2W
Pack Group	II
Special Provision	No Data Available

Sea Transport
IMDG Code

Proper Shipping Name	FORMIC ACID with more than 85% acid by mass
Class	8 Corrosive Substances
Subsidiary Risk(s)	3 Flammable Liquids
UN Number	1779
Hazchem	2W
Pack Group	II
Special Provision	No Data Available
EMS	F-E, S-C
Marine Pollutant	No

Air Transport
IATA DGR

Proper Shipping Name	FORMIC ACID with more than 85% acid by mass
Class	8 Corrosive Substances
Subsidiary Risk(s)	3 Flammable Liquids
UN Number	1779
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	FORMIC ACID
Poisons Schedule (Aust)	Schedule 5

Environmental Protection Authority (New Zealand)
Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	HSR000979

National/Regional Inventories

Australia (AIIC)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Determined

China (IECSC)	Listed
Europe (EINECS)	200-579-1
Europe (REACh)	Not Determined
Japan (ENCS/METI)	Listed
Korea (KECI)	Listed
Malaysia (List of Classified Substances)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Listed
Taiwan (TCSI)	Listed
USA (TSCA)	Listed
Mexico (INSQ)	Not Determined

16. OTHER INFORMATION

Related Product Codes	FORMIC0100, FORMIC0200, FORMIC0300, FORMIC0400, FORMIC0600, FORMIC0700, FORMIC0800, FORMIC1000, FORMIC1001, FORMIC1002, FORMIC1003, FORMIC1004, FORMIC1005, FORMIC1006, FORMIC1007, FORMIC1008, FORMIC1009, FORMIC1010, FORMIC1011, FORMIC1012, FORMIC1013, FORMIC1014, FORMIC1015, FORMIC1016, FORMIC1017, FORMIC1018, FORMIC1019, FORMIC1020, FORMIC1021, FORMIC1022, FORMIC1023, FORMIC1024, FORMIC1025, FORMIC1026, FORMIC1027, FORMIC1028, FORMIC1029, FORMIC1030, FORMIC1031, FORMIC1032, FORMIC1033, FORMIC1034, FORMIC1035, FORMIC1036, FORMIC1037, FORMIC1038, FORMIC1039, FORMIC1040, FORMIC1041, FORMIC1042, FORMIC1043, FORMIC1044, FORMIC1045, FORMIC1046, FORMIC1047, FORMIC1049, FORMIC1051, FORMIC1053, FORMIC1056, FORMIC1059, FORMIC1090, FORMIC1091, FORMIC1094, FORMIC1095, FORMIC1100, FORMIC1101, FORMIC1200, FORMIC1201, FORMIC1202, FORMIC1300, FORMIC1400, FORMIC1401, FORMIC1500, FORMIC1501, FORMIC1502, FORMIC1600, FORMIC1700, FORMIC1785, FORMIC1800, FORMIC1801, FORMIC1803, FORMIC1804, FORMIC1805, FORMIC1806, FORMIC1807, FORMIC1808, FORMIC1809, FORMIC1810, FORMIC1811, FORMIC1812, FORMIC1813, FORMIC1814, FORMIC1815, FORMIC1816, FORMIC1817, FORMIC1818, FORMIC1819, FORMIC1820, FORMIC1821, FORMIC1822, FORMIC1823, FORMIC1824, FORMIC1825, FORMIC1826, FORMIC1827, FORMIC1828, FORMIC1835, FORMIC2000, FORMIC2001, FORMIC2100, FORMIC2200, FORMIC2300, FORMIC2400, FORMIC2500, FORMIC2600, FORMIC2700, FORMIC2800, FORMIC2900, FORMIC3000, FORMIC3001, FORMIC3002, FORMIC3003, FORMIC3081, FORMIC3100, FORMIC3101, FORMIC3196, FORMIC3200, FORMIC3300, FORMIC3400, FORMIC3401, FORMIC3500, FORMIC3600, FORMIC3601, FORMIC3680, FORMIC3681, FORMIC3685, FORMIC3688, FORMIC3689, FORMIC3690, FORMIC3692, FORMIC3693, FORMIC3695, FORMIC3699, FORMIC3700, FORMIC3710, FORMIC3790, FORMIC3795, FORMIC3796, FORMIC3800, FORMIC4100, FORMIC4200, FORMIC4300, FORMIC4303, FORMIC4400, FORMIC4800, FORMIC5000, FORMIC5100, FORMIC5200, FORMIC5300, FORMIC5400, FORMIC6000, FORMIC6085, FORMIC6090, FORMIC6094, FORMIC6100, FORMIC6185, FORMIC6190, FORMIC6194, FORMIC6200, FORMIC6300, FORMIC6400, FORMIC7000, FORMIC7001, FORMIC7002, FORMIC7003, FORMIC7100, FORMIC7500, FORMIC7501, FORMIC7600, FORMIC7700, FORMIC7701, FORMIC7800, FORMIC8000, FORMIC8001, FORMIC8002, FORMIC8500, FORMIC8501, FORMIC8502, FORMIC8503, FORMIC8504, FORMIC8505, FORMIC8506, FORMIC8507, FORMIC8508, FORMIC8509, FORMIC8510, FORMIC8511, FORMIC8512, FORMIC8513, FORMIC8514, FORMIC8515, FORMIC8516, FORMIC8517, FORMIC8518, FORMIC8519, FORMIC8520, FORMIC8521, FORMIC8522, FORMIC8523, FORMIC8524, FORMIC8525, FORMIC8526, FORMIC8527, FORMIC9000, FORMIC9500, FORMIC9900, FORMIC9901
Revision	7
Revision Date	12 Jun 2023
Key/Legend	< Less Than > Greater Than **AICS** Australian Inventory of Chemical Substances **atm** Atmosphere **CAS** Chemical Abstracts Service (Registry Number) **cm^2** 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^3 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
inH2O Inch of Water
K Kelvin
kg Kilogram
kg/m^3 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^3 Cubic Metre
mbar Millibar
mg Milligram
mg/24H Milligrams per 24 Hours
mg/kg Milligrams per Kilogram
mg/m^3 Milligrams per Cubic Metre
Misc or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.
mm Millimetre
mmH2O 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