

1. IDENTIFICATION

Product Name	Formic acid >85%
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	CH ₂ O ₂
Chemical Name	Formic acid >85%
Product Description	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) 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 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.
	H302	Harmful if swallowed.
	H314	Causes severe skin burns and eye damage.
	H331	Toxic if inhaled.
	H335	May cause respiratory irritation.

Precautionary Statements	Prevention	P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.	
		P260	Do not breathe mist/vapour/spray.	
		P280	Wear protective gloves/protective clothing/eye protection/face protection.	
		P240	Ground/bond container and receiving equipment.	
		P241	Use explosion-proof electrical/ventilating/lighting and all other equipment.	
		P242	Use only non-sparking tools.	
		P243	Take precautionary measures against static discharge.	
		P235	Keep cool.	
		P270	Do not eat, drink or smoke when using this product.	
		P271	Use only outdoors or in a well-ventilated area.	
		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): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
			P310	Immediately call a POISON CENTER or doctor/physician.
	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 at rest in a position comfortable for breathing.	
	P301 + P330 + P331		IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.	
	P363		Wash contaminated clothing before reuse.	
	Storage	P403 + P233	Store in a well-ventilated place. Keep container tightly closed.	
		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)

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

HSNO Classifications	Physical Hazards	3.1C	Flammable liquid - medium hazard
	Health Hazards	6.1C	Substances that are acutely toxic- Toxic
6.1D		Substances that are acutely toxic - Harmful	
8.1A		Substances that are corrosive to metals	
8.2B		Substances that are corrosive to dermal tissue UN PGI	
8.3A		Substances that are corrosive to ocular tissue	
Environmental Hazards		9.1D	Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action
		9.3C	Substances that are harmful to terrestrial vertebrates

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

Chemical Entity	Formula	CAS Number	Proportion
Formic acid	CH2O2	64-18-6	>85 %
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 plenty of water. Do NOT induce vomiting. Immediately call a Poison Centre or doctor/physician.
Eye	IF IN EYES: Immediately flush eyes with running water (continuously) for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Immediately call a Poison Centre or doctor/physician. 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 contaminated clothing and shoes immediately. Flush skin and hair with running water for at least 15 minutes. In case of gross contamination, drench contaminated clothing and skin with plenty of water before removing clothes. For minor skin contact, avoid spreading material on unaffected skin. Immediately call a Poison Centre or doctor/physician. 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. 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.
Advice to Doctor	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. - 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.
Medical Conditions Aggravated by Exposure	No information available.

5. FIRE FIGHTING MEASURES

General Measures	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.
Flammability Conditions	FLAMMABLE LIQUID & VAPOUR: May be ignited by heat, sparks or flames.
Extinguishing Media	Use dry chemical, Carbon dioxide (CO ₂), alcohol-resistant foam or water spray for extinction - Do not use water jets. Alcohol-resistant foam is the preferred firefighting medium but, if it is not available, fine water spray can be used.
Fire and Explosion Hazard	Risk of violent reaction or explosion: Containers may explode when heated. When heated, vapours may form explosive mixtures with air. Contact with metals may evolve flammable hydrogen gas.
Hazardous Products of Combustion	Fire will produce irritating, toxic and/or corrosive gases, including Carbon oxides.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may be toxic and/or corrosive and may pollute waterways.
Personal Protective Equipment	Liquid-tight chemical protective clothing (splash suit) in combination with self-contained breathing apparatus (SCBA) should be used. Structural firefighter's uniform is NOT effective for this material.
Flash Point	48 °C [Closed cup]
Lower Explosion Limit	12 %
Upper Explosion Limit	38 %
Auto Ignition Temperature	480 °C
Hazchem Code	•2W

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation - Ventilate enclosed spaces before entering. ELIMINATE all ignition sources. Do not touch or walk through spilled material. Do not breathe vapours and prevent contact with eyes, skin and clothing.
Clean Up Procedures	Collect recoverable product into labelled containers for recycling; Absorb residues with earth, sand or other non-combustible material and transfer to a suitable, properly labelled container for disposal (see SECTION 13).
Containment	Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Cover with plastic sheet to prevent spreading.
Decontamination	Wash area, preventing runoff into drains. After clean-up, decontaminate and launder all protective clothing and equipment before storing or reusing.
Environmental Precautionary Measures	Spillages and decontamination runoff should be prevented from entering drains and watercourses.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher ground.
Personal Precautionary Measures	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (see SECTION 8). Large spill: Wear SCBA and chemical splash suit.

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 (see SECTION 8). Flammable liquid & vapour: Keep away from heat and sources of ignition - No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed and protect against physical damage. Keep cool; Keep away from heat and sources of ignition - No smoking. Keep away from food/feedstuffs and incompatible materials (see SECTION 10). Store locked up.
Container	Keep only in the original container. May be corrosive to metals.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	COMPONENT: Formic acid (CAS No. 64-18-6): - Safe Work Australia Exposure Standard: TWA = 5 ppm (9.4 mg/m ³); STEL = 10 ppm (19 mg/m ³). - New Zealand WES: TWA = 5 ppm (9.4 mg/m ³); STEL = 10 ppm (19 mg/m ³). - NIOSH REL/OSHA PEL: TWA = 5 ppm (9 mg/m ³). - 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: Combination filter for organic/inorganic vapours and acid gas (e.g. Type-ABEK); Wear self-contained breathing apparatus (SCBA) for higher concentrations or long-term effect (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Chemical goggles; Face-shield, as appropriate. - Hand protection: Wear protective gloves. Recommended: Chemical-resistant gloves, e.g. chloroprene or butyl rubber. - Skin/body protection: Wear appropriate personal protective clothing to prevent skin contact. Recommended: Chemical protective clothing, preferably with an apron; Safety boots.
Special Hazards Precautions	No information available.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. 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
pH	<2
Vapour Pressure	35 mmHg (@ 20 °C)
Relative Vapour Density	1.6 Air = 1
Boiling Point	101 °C
Melting Point	8 °C
Freezing Point	No Data Available
Solubility	Miscible with water - Miscible with alcohol, ether and glycerol
Specific Gravity	1.2 (90%)
Flash Point	48 °C [Closed cup]
Auto Ignition Temp	480 °C
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	-2.1 (log Pow)
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	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 will produce irritating, toxic and/or corrosive gases, including Carbon oxides.
Release of Invisible Flammable Vapours and Gases	When heated, vapours may form explosive mixtures with air. Contact with metals may evolve flammable hydrogen gas.

10. STABILITY AND REACTIVITY

General Information	Medium-strong acid; Reacts violently with strong bases and strong oxidisers - This generates fire and explosion hazard.
Chemical Stability	Stable under normal use conditions.
Conditions to Avoid	Keep away from heat and sources of ignition.
Materials to Avoid	Incompatible/reactive with strong oxidisers, strong bases, concentrated sulfuric acid; May be corrosive to metals.
Hazardous Decomposition Products	Fire/decomposition will produce irritating, toxic and/or corrosive gases, including Carbon oxides. Contact with metals may evolve flammable hydrogen gas.
Hazardous Polymerisation	Will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	<ul style="list-style-type: none"> - Acute toxicity: Harmful if swallowed; Corrosive to the gastrointestinal tract. Toxic if inhaled; Inhalation of the vapour may cause lung oedema. - Skin corrosion/irritation: Causes severe skin burns; Corrosive to skin. - Eye damage/irritation: Causes serious eye damage; considered to cause irreversible effects on the eyes. - 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): Causes respiratory irritation; May be corrosive to the respiratory tract. - STOT (repeated exposure): No significant evidence of systemic toxicity; effects observed were due to the corrosive nature of the chemical. - Aspiration toxicity: No information available.
Acute	
Ingestion	<p>Acute toxicity (Oral): COMPONENT: Formic acid (CAS No. 64-18-6): - LD50, Rat: 730 mg/kg bw.</p>
Inhalation	<p>Acute toxicity (Inhalation): COMPONENT: Formic acid (CAS No. 64-18-6): - LC50, Rat: 7.4 mg/L (vapour).</p>
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Harmful effect due to pH shift.
Persistence/Degradability	Readily biodegradable.
Mobility	Significant adsorption to solid soil phase is not expected. the substance will not evaporate into the atmosphere from the water surface; the substance will mainly distribute into the water compartment.
Environmental Fate	Harmful to aquatic life - Prevent entry into soils, drains and waterways.
Bioaccumulation Potential	Accumulation in organisms is not to be expected (log Pow <1).
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container in accordance with local/regional/national regulations.
Special Precautions for Land Fill	No information available.

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	36 Toxic And/Or Corrosive Substances 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	36 Toxic And/Or Corrosive Substances 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	36 Toxic And/Or Corrosive Substances 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)
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15. REGULATORY INFORMATION

General Information	No Data Available
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 (AICS)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	200-579-1
Europe (REACH)	01-2119491174-37-0006
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)	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, FORMIC1045, FORMIC1046, FORMIC1051, FORMIC1053, FORMIC1056, FORMIC1090, FORMIC1091, FORMIC1094, 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, FORMIC3700, FORMIC3710, FORMIC3790, FORMIC3800, FORMIC4100, FORMIC4200, FORMIC4300, 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	5
Revision Date	01 Nov 2017
Reason for Issue	Updated SDS
Key/Legend	<p>< 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/cm³ 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/m³ 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 m³ Cubic Metre mbar Millibar mg Milligram mg/24H Milligrams per 24 Hours mg/kg Milligrams per Kilogram mg/m³ Milligrams per Cubic Metre Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present. mm Millimetre mmH₂O 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</p>

