SAFETY DATA SHEET
FORMALDEHYDE
REVISION 5, DATE 23 MAR 21

1. IDENTIFICATION

Product Name	**Formaldehyde**
Other Names	Formaldehyde 37/7
Uses	Used as disinfectant, biocide and in manufacture of phenolic resins and adhesives. Renders casein, albumin and gelatin insoluble.
Chemical Family	No Data Available
Chemical Formula	CH2O
Chemical Name	Formaldehyde solution
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

Poisons Schedule (Aust)	Schedule 6

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 4
Acute Toxicity (Oral) - Category 3
Acute Toxicity (Dermal) - Category 3
Acute Toxicity (Inhalation) - Category 3
Skin Corrosion/Irritation - Category 1B
Serious Eye Damage/Irritation - Category 1
Sensitisation (Skin) - Category 1
Germ Cell Mutagenicity - Category 2
Carcinogenicity - Category 1B
Specific Target Organ Toxicity (Single Exposure) - Category 2
Acute Hazard To The Aquatic Environment - Category 2

Pictograms

Signal Word

Danger

Hazard Statements

H227	Combustible liquid.
H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H341	Suspected of causing genetic defects.
H350i	May cause cancer by inhalation.
H371	May cause damage to organs.
H401	Toxic to aquatic life.

Precautionary Statements

Prevention	**P210**	Keep away from flames and hot surfaces. No smoking.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P233	Keep container tightly closed.
	P260	Do not breathe gas/mist/vapours/spray.
	P201	Obtain special instructions before use.
	P273	Avoid release to the environment.
	P270	Do not eat, drink or smoke when using this product.
	P271	Use only outdoors or in a well-ventilated area.
	P272	Contaminated work clothing should not be allowed out of the workplace.
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.
	P310	Immediately call a POISON CENTER or doctor.
	P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P308 + P313	IF exposed or concerned: Get medical attention.

	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.
	P333 + P313	If skin irritation or rash occurs: Get medical attention.
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)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Formaldehyde	CH2O	50-00-0	36 - 43 %
Methanol	CH4O	67-56-1	<=10 %
Formic acid	CH2O2	64-18-6	<=0.05 %
Water	H2O	7732-18-5	Balance %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth, then give up to 200 ml water for dilution where patient is able to swallow. Do NOT induce vomiting. Immediately call a Poison Centre or doctor/physician for advice. Never give anything by mouth to an unconscious person. Transport to hospital or doctor without delay!
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. Transport to hospital or doctor without delay! Continue to irrigate with normal saline during transport to hospital. *Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
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. Transport to hospital or doctor without delay! *Skin burns should be covered with dry, sterile bandages, following decontamination.
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. Transport to hospital or doctor without delay!
Advice to Doctor	Treat symptomatically (for corrosives). Keep victim calm and warm. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Monitor and treat, where necessary, for pulmonary oedema. Monitor and treat, where necessary, for shock. Anticipate seizures. Do NOT attempt neutralisation as exothermic reaction may occur. *Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Medical Conditions Aggravated by Exposure	May cause an allergic skin reaction.

5. FIRE FIGHTING MEASURES

General Measures	Alert Fire Brigade and tell them location and nature of hazard. If safe to do so, move undamaged containers from fire area. Do not approach containers suspected to be hot. Cool container with water spray until well after fire is out. Dike fire-control water for later disposal; do not scatter the material. Do not get water inside containers. *Equipment should be thoroughly decontaminated after use.
Flammability Conditions	Combustible liquid: May be ignited by heat, sparks or flame. *The product contains a substantial proportion of water; evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances.
Extinguishing Media	Use dry chemical, Carbon dioxide (CO2), alcohol-resistant foam or water spray for extinction. Choice of extinguishing media should take into account surrounding areas. *Alcohol resistant foam is the preferred firefighting medium but, if it is not available, fine water spray can be used.
Fire and Explosion Hazard	Mists containing combustible materials may be explosive. Vapours may form explosive mixtures with air. Vapours may travel to source of ignition and flash back. Most vapours are heavier than air and will collect in low or confined areas. Vapour explosion hazard indoors, outdoors or in sewers! Containers may explode when heated. Many liquids are lighter than water.
Hazardous Products of Combustion	Fire will produce irritating, corrosive and/or toxic gases, including carbon monoxide (CO), carbon dioxide (CO2), other pyrolysis products typical of burning organic material. May emit acrid smoke.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may cause pollution. Runoff to sewer may create fire or explosion hazard!
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 - 85 °C [Open cup]
Lower Explosion Limit	7 %
Upper Explosion Limit	73 %
Auto Ignition Temperature	395 - 424 °C
Hazchem Code	•2X

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation - Ventilate enclosed spaces before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Clean up all spills immediately! Do not breathe vapours and prevent contact with eyes, skin and clothing.
Clean Up Procedures	Absorb with earth, sand or other non-combustible material. Use clean, non-sparking tools to collect absorbed material and transfer to labelled containers for disposal (see SECTION 13). *Collect recoverable product into labelled containers for recycling.
Containment	Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Dike far ahead of liquid spill for later disposal. *A vapour-suppressing foam may be used to reduce vapours. Water spray may reduce vapour, but may not prevent ignition in closed spaces.
Decontamination	Neutralise/decontaminate residue. Wash area and prevent runoff into drains. *After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.
Environmental Precautionary Measures	Spillages and decontamination runoff should be prevented from entering drains and watercourses. If contamination of drains or waterways occurs, advise emergency services. *Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material.

Evacuation Criteria	Spill or leak area should be isolated immediately. 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	Wear positive pressure self-contained breathing apparatus (SCBA). Fully encapsulating, vapour-protective clothing should be worn for spills and leaks with no fire. *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.

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. Obtain special instructions before use - Do not handle until all safety precautions have been read and understood. Do not breathe gas/mist/vapours/spray and prevent contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection (see SECTION 8). Combustible liquid: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Ground and bond container and receiving equipment. Avoid contact with moisture and incompatible materials. Avoid release to the environment.
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep containers securely sealed when not in use. Protect containers against physical damage and check regularly for leaks. Avoid exposure to light and air. 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 in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	For Formaldehyde (CAS No. 50-00-0): - Safe Work Australia Exposure Standard: TWA = 1 ppm (1.2 mg/m3); STEL = 2 ppm (2.5 mg/m3); Suspected human carcinogen (Carc. 2); Respiratory and/or Skin Sensitiser (Sen). - New Zealand Workplace Exposure Standard [Adopted 2022]: TWA = 0.3 ppm; STEL = 0.6 ppm; Known or presumed human carcinogen (carcinogen category 1); Dermal sensitiser (dsen). COMPONENT: Methanol (CAS No. 67-56-1): - Safe Work Australia Exposure Standard: TWA = 200 ppm (262 mg/m3); STEL = 250 ppm (328 mg/m3); Absorption through the skin may be a significant source of exposure (Sk). - New Zealand Workplace Exposure Standard [Next review 2022]: TWA = 200 ppm (262 mg/m3); STEL = 250 ppm (328 mg/m3); Skin absorption (skin); Exposure can also be estimated by biological monitoring (bio). COMPONENT: 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).
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.
Personal Protection Equipment	- Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Type BAX Filter of sufficient capacity (refer to AS/NZS 1715 & 1716). Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. - Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Chemical goggles. Full face shield may be required for supplementary but never for primary protection of eyes. - Hand protection: Wear protective gloves. Recommended: Long (elbow-length) impervious gloves, e.g. PVC, Vinyl gloves (excellent protection); NR latex, Nitrile and Neoprene (good protection). - Skin/body protection: Wear appropriate personal protective clothing to prevent skin contact. Recommended: Overalls, PVC Apron. PVC protective suit may be required if exposure severe. Wear safety footwear or safety gumboots, e.g. Rubber. When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.

Special Hazards Precaustions	Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
Work Hygienic Practices	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Always wash hands before smoking, eating, drinking or using the toilet. Do NOT allow clothing wet with material to stay in contact with skin. Wash contaminated clothing and other protective equipment before storage or re-use. Work clothes should be laundered separately. Contaminated work clothing should not be allowed out of the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Clear liquid
Odour	Pungent
Colour	Colourless
pH	3.0 - 4.0 (as supplied)
Vapour Pressure	No Data Available
Relative Vapour Density	>1 Air = 1
Boiling Point	96 - 101 °C
Melting Point	No Data Available
Freezing Point	No Data Available
Solubility	Miscible with water
Specific Gravity	1.08 - 1.14 (Water = 1)
Flash Point	>60 - 85 °C [Open cup]
Auto Ignition Temp	395 - 424 °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	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	1 - 5 cPs (@ 25 °C)
Volatile Percent	100
VOC Volume	No Data Available
Additional Characteristics	No information available.
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 be ignited by heat, sparks or flame. *The product contains a substantial proportion of water; evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances.
Reactions That Release Gases or Vapours	Fire/decomposition will produce irritating, corrosive and/or toxic gases, including carbon monoxide (CO), carbon dioxide (CO2), other pyrolysis products typical of burning organic material. May emit acrid smoke.
Release of Invisible Flammable Vapours and Gases	Vapours may form explosive mixtures with air. Mists containing combustible materials may be explosive.

10. STABILITY AND REACTIVITY

General Information	At elevated temperatures, oxidation of formaldehyde produces formic acid. Reacts with mild steel, galvanised steel/zinc liberating flammable hydrogen gas.
Chemical Stability	Product is considered stable. *Unstable in the presence of incompatible materials.
Conditions to Avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid exposure to light and air.
Materials to Avoid	Incompatible/reactive with strong oxidisers, alkalis and acids, phenols, urea, oxides, isocyanates, caustics, anhydrides.
Hazardous Decomposition Products	Fire/decomposition will produce irritating, corrosive and/or toxic gases, including carbon monoxide (CO), carbon dioxide (CO2), other pyrolysis products typical of burning organic material. May emit acrid smoke.
Hazardous Polymerisation	Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

General Information

- Acute toxicity: Toxic if swallowed, in contact with skin and if inhaled. The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion.
- Skin corrosion/irritation: Causes severe skin burns and eye damage.
- Eye damage/irritation: Causes serious eye damage. Vapours or mists may be extremely irritating.
- Respiratory/skin sensitisation: May cause an allergic skin reaction (Formaldehyde). Practical experience shows that skin contact with the material is capable either of inducing a sensitisation reaction in a substantial number of individuals, and/or of producing a positive response in experimental animals.
- Germ cell mutagenicity: Suspected of causing genetic defects (Formaldehyde).
- Carcinogenicity: May cause cancer by inhalation. Formaldehyde (CAS No. 50-00-0) is Classified by the IARC Monographs as "Carcinogenic to humans" (Group 1).
- Reproductive toxicity: There is limited evidence that formaldehyde has any adverse effect on reproduction or development in humans.
- STOT (single exposure): May cause damage to organs (Methanol). Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo. Inhalation of vapour at relatively low concentrations may cause a tingling sensation in the nose and upper respiratory tract. Slightly higher concentrations may cause a burning sensation, headache. High vapour concentrations of formaldehyde are capable of causing chest constriction, bronchopneumonia, dysphagia, oedema, spasms of the larynx and dyspnoea. Minor but regular methanol exposures may effect the central nervous system, optic nerves and retinae. Symptoms may be delayed, with headache, fatigue, nausea, blurring of vision and double vision. Continued or severe exposures may cause damage to optic nerves, which may become severe with permanent visual impairment, even blindness resulting. WARNING: Methanol is only slowly eliminated from the body and should be regarded as a cumulative poison which cannot be made non-harmful!
- STOT (repeated exposure): Danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. Long-term exposure to methanol vapour, at concentrations exceeding 3000 ppm, may produce cumulative effects characterised by gastrointestinal disturbances (nausea, vomiting), headache, ringing in the ears, insomnia, trembling, unsteady gait, vertigo, conjunctivitis and clouded or double vision. Liver and/or kidney injury may also result. Some individuals show severe eye damage following prolonged exposure to 800 ppm of the vapour.
- Aspiration toxicity: No information available.

Acute

Ingestion	Acute toxicity (Oral): COMPONENT: Formaldehyde (CAS No. 50-00-0): - LD50, Rat: 800 mg/kg bw. - LD50, Guinea-pig: 260 mg/kg bw. COMPONENT: Methanol (CAS No. 67-56-1): - LD50, Rat: 5,628 mg/kg bw. - LDLo = 143 - 428 mg/kg bw. (humans).
Other	Acute toxicity (Dermal): COMPONENT: Formaldehyde (CAS No. 50-00-0): - LD50, Rabbit: 270 mg/kg bw. COMPONENT: Methanol (CAS No. 67-56-1): - LD50, Rabbit: 15,800 - 20,000 mg/kg bw.
Inhalation	Acute toxicity (Inhalation): COMPONENT: Formaldehyde (CAS No. 50-00-0): - LC50, Rat: 480 ppm (578 mg/m3) (4 h) - LC50, Mouse: 414 ppm (497 mg/m3 (4 h) COMPONENT: Methanol (CAS No. 67-56-1): - LC50, Rat: 87.5 mg/L (6 h) & 128.2 mg/L (4 h)
Carcinogen Category	Cat. 1B

12. ECOLOGICAL INFORMATION

Ecotoxicity	Aquatic toxicity: COMPONENT: Formaldehyde (CAS No. 5-00-0): - LC50, Fish: 0.002 mg/L (96 h) [Supplier's SDS]. - EC50, Crustacea: 0.014 - 0.022 mg/L (48 h) [Supplier's SDS]. - EC50, Algae/other aquatic plants: 1.034 - 1.984 mg/L (72 h) [Supplier's SDS]. COMPONENT: Methanol (CAS No. 67-56-1): - LC50, Fish: 21.233 - 24.544 mg/L (96 h) [Supplier's SDS].
Persistence/Degradability	COMPONENT: Formaldehyde (CAS No. 5-00-0): - Persistence (water/soil): LOW (Half-life = 14 days) - Persistence (air): LOW (Half-life = 2.97 days) COMPONENT: Methanol (CAS No. 67-56-1): - Persistence (water/soil): LOW - Persistence (air): LOW
Mobility	Mobility in soil: COMPONENT: Formaldehyde (CAS No. 5-00-0): - HIGH (KOC = 1) COMPONENT: Methanol (CAS No. 67-56-1): - HIGH (KOC = 1)
Environmental Fate	Toxic to aquatic life - Avoid release to the environment.
Bioaccumulation Potential	COMPONENT: Formaldehyde (CAS No. 5-00-0): - LOW (LogKOW = 0.35) COMPONENT: Methanol (CAS No. 67-56-1): - LOW (BCF = 10)
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container in accordance with local/regional/national regulations. This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse

may not always be appropriate.

Special Precautions for Land Fill	Containers may still present a chemical hazard/danger when empty. If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Where possible retain label warnings and SDS and observe all notices pertaining to the product.

14. TRANSPORT INFORMATION

Land Transport (Australia)
ADG Code

Proper Shipping Name	FORMALDEHYDE SOLUTION with not less than 25% formaldehyde
Class	8 Corrosive Substances
Subsidiary Risk(s)	C1 Combustible Liquids - Flash Point >60°C - <=93°C, Closed Cup
EPG	19 Liquids - Flammable , Toxic And/Or Corrosive
UN Number	2209
Hazchem	•2X
Pack Group	III
Special Provision	No Data Available

Land Transport (Malaysia)
ADR Code

Proper Shipping Name	FORMALDEHYDE SOLUTION with not less than 25% formaldehyde
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	19 Liquids - Flammable , Toxic And/Or Corrosive
UN Number	2209
Hazchem	•2X
Pack Group	III
Special Provision	No Data Available

Land Transport (New Zealand)
NZS5433

Proper Shipping Name	FORMALDEHYDE SOLUTION with not less than 25% formaldehyde
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	19 Liquids - Flammable , Toxic And/Or Corrosive
UN Number	2209
Hazchem	•2X
Pack Group	III
Special Provision	No Data Available

Land Transport (United States of America)
US DOT

Proper Shipping Name	FORMALDEHYDE SOLUTION with not less than 25% formaldehyde
Class	8 Corrosive Substances

Subsidiary Risk(s)	No Data Available
ERG	132 Flammable Liquids - Corrosive
UN Number	2209
Hazchem	2X
Pack Group	III
Special Provision	No Data Available

Sea Transport
IMDG Code

Proper Shipping Name	FORMALDEHYDE SOLUTION with not less than 25% formaldehyde
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
UN Number	2209
Hazchem	2X
Pack Group	III
Special Provision	No Data Available
EMS	F-A, S-B
Marine Pollutant	No

Air Transport
IATA DGR

Proper Shipping Name	FORMALDEHYDE SOLUTION with not less than 25% formaldehyde
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
UN Number	2209
Hazchem	2X
Pack Group	III
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	FORMALDEHYDE
Poisons Schedule (Aust)	Schedule 6

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

Approval Code	Not Assessed

National/Regional Inventories

Australia (AIIC)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	200-001-8
Europe (REACh)	Not Determined
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Not Determined
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Not Determined
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Not Determined

16. OTHER INFORMATION

Related Product Codes	FORMAL1000, FORMAL1001, FORMAL1002, FORMAL1003, FORMAL1004, FORMAL1005, FORMAL1006, FORMAL1007, FORMAL1008, FORMAL1009, FORMAL1010, FORMAL1011, FORMAL1012, FORMAL1013, FORMAL1014, FORMAL1015, FORMAL1016, FORMAL1017, FORMAL1018, FORMAL1019, FORMAL1020, FORMAL1021, FORMAL1022, FORMAL1023, FORMAL1024, FORMAL1026, FORMAL1027, FORMAL1028, FORMAL1036, FORMAL1037, FORMAL1100, FORMAL1107, FORMAL1108, FORMAL1109, FORMAL1200, FORMAL1220, FORMAL1222, FORMAL1300, FORMAL1800, FORMAL1801, FORMAL1802, FORMAL1803, FORMAL1804, FORMAL1805, FORMAL1806, FORMAL1807, FORMAL1808, FORMAL1809, FORMAL1810, FORMAL1811, FORMAL1812, FORMAL1813, FORMAL1814, FORMAL1815, FORMAL1816, FORMAL1817, FORMAL1818, FORMAL1819, FORMAL1820, FORMAL1821, FORMAL1822, FORMAL1823, FORMAL1824, FORMAL1825, FORMAL1826, FORMAL1827, FORMAL1828, FORMAL1829, FORMAL1830, FORMAL1831, FORMAL1832, FORMAL1833, FORMAL1890, FORMAL1895, FORMAL1896, FORMAL1897, FORMAL1900, FORMAL1901, FORMAL1902, FORMAL1916, FORMAL2000, FORMAL2001, FORMAL3000, FORMAL3500, FORMAL3800, FORMAL4000, FORMAL4200, FORMAL5000, FORMAL6000, FORMAL6100, FORMAL6200, FORMAL6300, FORMAL7000, FORMAL7100, FORMAL7200, FORMAL7900, FORMAL8000, FORMAL8001, FORMAL8002, FORMAL8100, FORMAL8200, FORMAL8300, FORMAL8500, FORMAL8501, FORMAL8502, FORMAL8600, FORMAL8610, FORMAL8700, FORMAL9000
Revision	5
Revision Date	23 Mar 2021
Reason for Issue	SDS updated.
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