

### 1. IDENTIFICATION

<b>Product Name</b>	<b>Formaldehyde</b>
<b>Other Names</b>	Formaldehyde 37/7
<b>Uses</b>	Used as disinfectant, biocide and in manufacture of phenolic resins and adhesives. Renders casein, albumin and gelatin insoluble.
<b>Chemical Family</b>	No Data Available
<b>Chemical Formula</b>	CH <sub>2</sub> O
<b>Chemical Name</b>	Formaldehyde solution
<b>Product Description</b>	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



<b>Hazard Classification</b>	Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
<b>Hazard Categories</b>	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**

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

**Precautionary Statements**

Prevention	<b>P210</b>	Keep away from flames and hot surfaces. No smoking.	
	<b>P280</b>	Wear protective gloves/protective clothing/eye protection/face protection.	
	<b>P233</b>	Keep container tightly closed.	
	<b>P260</b>	Do not breathe gas/mist/vapours/spray.	
	<b>P201</b>	Obtain special instructions before use.	
	<b>P273</b>	Avoid release to the environment.	
	<b>P270</b>	Do not eat, drink or smoke when using this product.	
	<b>P271</b>	Use only outdoors or in a well-ventilated area.	
	<b>P272</b>	Contaminated work clothing should not be allowed out of the workplace.	
	Response	<b>P370 + P378</b>	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.
		<b>P310</b>	Immediately call a POISON CENTER or doctor.
		<b>P303 + P361 + P353</b>	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
		<b>P305 + P351 + P338</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		<b>P308 + P313</b>	IF exposed or concerned: Get medical attention.
<b>P304 + P340</b>		IF INHALED: Remove victim to fresh air and keep comfortable for breathing.	
<b>P301 + P330 + P331</b>		IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.	
<b>P363</b>		Wash contaminated clothing before reuse.	
<b>P333 + P313</b>		If skin irritation or rash occurs: Get medical attention.	
Storage		<b>P403 + P235</b>	Store in a well-ventilated place. Keep cool.



	<b>P405</b>	Store locked up.
Disposal	<b>P501</b>	Dispose of contents/container in accordance with local / regional / national / international regulations.

**National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road &amp; 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

<b>HSNO Classifications</b>	Physical Hazards	<b>3.1D</b>	Flammable liquid - low hazard
	Health Hazards	<b>6.1B</b>	Substances that are acutely toxic - Fatal
		<b>6.1C</b>	Substances that are acutely toxic- Toxic
		<b>6.5B</b>	Substances that are contact sensitisers
		<b>6.6B</b>	Substances that are suspected human mutagens
		<b>6.7A</b>	Substances that are known or presumed human carcinogens
		<b>6.9B</b>	Substances that are harmful to human target organs or systems
		<b>8.2C</b>	Substances that are corrosive to dermal tissue UN PGIII
		<b>8.3A</b>	Substances that are corrosive to ocular tissue

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

Chemical Entity	Formula	CAS Number	Proportion
Formaldehyde	CH <sub>2</sub> O	50-00-0	36 - 43 %
Methanol	CH <sub>4</sub> O	67-56-1	<=10 %
Formic acid	CH <sub>2</sub> O <sub>2</sub>	64-18-6	<=0.05 %
Water	H <sub>2</sub> O	7732-18-5	Balance %

**4. FIRST AID MEASURES****Description of necessary measures according to routes of exposure**

<b>Swallowed</b>	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!
<b>Eye</b>	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.
<b>Skin</b>	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.
<b>Inhaled</b>	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 (CO<sub>2</sub>), 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 (CO<sub>2</sub>), 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/m<sup>3</sup>); STEL = 2 ppm (2.5 mg/m<sup>3</sup>); 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/m<sup>3</sup>); STEL = 250 ppm (328 mg/m<sup>3</sup>); 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/m<sup>3</sup>); STEL = 250 ppm (328 mg/m<sup>3</sup>); 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/m<sup>3</sup>); STEL = 10 ppm (19 mg/m<sup>3</sup>).

- New Zealand Workplace Exposure Standard: TWA = 5 ppm (9.4 mg/m<sup>3</sup>); STEL = 10 ppm (19 mg/m<sup>3</sup>).

**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 Precautions**

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**

<b>Physical State</b>	Liquid
<b>Appearance</b>	Clear liquid
<b>Odour</b>	Pungent
<b>Colour</b>	Colourless
<b>pH</b>	3.0 - 4.0 (as supplied)
<b>Vapour Pressure</b>	No Data Available
<b>Relative Vapour Density</b>	>1 Air = 1
<b>Boiling Point</b>	96 - 101 °C
<b>Melting Point</b>	No Data Available
<b>Freezing Point</b>	No Data Available
<b>Solubility</b>	Miscible with water
<b>Specific Gravity</b>	1.08 - 1.14 (Water = 1)
<b>Flash Point</b>	>60 - 85 °C [Open cup]
<b>Auto Ignition Temp</b>	395 - 424 °C
<b>Evaporation Rate</b>	No Data Available
<b>Bulk Density</b>	No Data Available
<b>Corrosion Rate</b>	No Data Available
<b>Decomposition Temperature</b>	No Data Available
<b>Density</b>	No Data Available
<b>Specific Heat</b>	No Data Available
<b>Molecular Weight</b>	No Data Available
<b>Net Propellant Weight</b>	No Data Available
<b>Octanol Water Coefficient</b>	No Data Available
<b>Particle Size</b>	No Data Available
<b>Partition Coefficient</b>	No Data Available
<b>Saturated Vapour Concentration</b>	No Data Available
<b>Vapour Temperature</b>	No Data Available
<b>Viscosity</b>	1 - 5 cPs (@ 25 °C)
<b>Volatile Percent</b>	100
<b>VOC Volume</b>	No Data Available
<b>Additional Characteristics</b>	No information available.
<b>Potential for Dust Explosion</b>	Not applicable.
<b>Fast or Intensely Burning Characteristics</b>	No information available.
<b>Flame Propagation or Burning Rate of Solid Materials</b>	No information available.
<b>Non-Flammables That Could Contribute Unusual Hazards to a Fire</b>	No information available.
<b>Properties That May Initiate or Contribute to Fire Intensity</b>	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.
<b>Reactions That Release Gases or Vapours</b>	Fire/decomposition will produce irritating, corrosive and/or toxic gases, including carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ), 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**

<b>General Information</b>	At elevated temperatures, oxidation of formaldehyde produces formic acid. Reacts with mild steel, galvanised steel/zinc liberating flammable hydrogen gas.
<b>Chemical Stability</b>	Product is considered stable. *Unstable in the presence of incompatible materials.
<b>Conditions to Avoid</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid exposure to light and air.
<b>Materials to Avoid</b>	Incompatible/reactive with strong oxidisers, alkalis and acids, phenols, urea, oxides, isocyanates, caustics, anhydrides.
<b>Hazardous Decomposition Products</b>	Fire/decomposition will produce irritating, corrosive and/or toxic gases, including carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ), other pyrolysis products typical of burning organic material. May emit acrid smoke.
<b>Hazardous Polymerisation</b>	Hazardous polymerisation will not occur.

**11. TOXICOLOGICAL INFORMATION**

<b>General Information</b>	<ul style="list-style-type: none"> <li>- 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.</li> <li>- Skin corrosion/irritation: Causes severe skin burns and eye damage.</li> <li>- Eye damage/irritation: Causes serious eye damage. Vapours or mists may be extremely irritating.</li> <li>- 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.</li> <li>- Germ cell mutagenicity: Suspected of causing genetic defects (Formaldehyde).</li> <li>- Carcinogenicity: May cause cancer by inhalation. Formaldehyde (CAS No. 50-00-0) is Classified by the IARC Monographs as "Carcinogenic to humans" (Group 1).</li> <li>- Reproductive toxicity: There is limited evidence that formaldehyde has any adverse effect on reproduction or development in humans.</li> <li>- 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!</li> <li>- 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.</li> <li>- Aspiration toxicity: No information available.</li> </ul>
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**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.



<b>Inhalation</b>	Acute toxicity (Inhalation): COMPONENT: Formaldehyde (CAS No. 50-00-0): - LC50, Rat: 480 ppm (578 mg/m <sup>3</sup> ) (4 h) - LC50, Mouse: 414 ppm (497 mg/m <sup>3</sup> ) (4 h) COMPONENT: Methanol (CAS No. 67-56-1): - LC50, Rat: 87.5 mg/L (6 h) & 128.2 mg/L (4 h)
<b>Carcinogen Category</b>	Cat. 1B

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	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].
<b>Persistence/Degradability</b>	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
<b>Mobility</b>	Mobility in soil: COMPONENT: Formaldehyde (CAS No. 5-00-0): - HIGH (KOC = 1) COMPONENT: Methanol (CAS No. 67-56-1): - HIGH (KOC = 1)
<b>Environmental Fate</b>	Toxic to aquatic life - Avoid release to the environment.
<b>Bioaccumulation Potential</b>	COMPONENT: Formaldehyde (CAS No. 5-00-0): - LOW (LogKOW = 0.35) COMPONENT: Methanol (CAS No. 67-56-1): - LOW (BCF = 10)
<b>Environmental Impact</b>	No Data Available

## 13. DISPOSAL CONSIDERATIONS

<b>General Information</b>	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.
<b>Special Precautions for Land Fill</b>	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



<b>Marine Pollutant</b>	No
<b>Air Transport</b>	
IATA DGR	
<b>Proper Shipping Name</b>	FORMALDEHYDE SOLUTION with not less than 25% formaldehyde
<b>Class</b>	8 Corrosive Substances
<b>Subsidiary Risk(s)</b>	No Data Available
<b>UN Number</b>	2209
<b>Hazchem</b>	2X
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available

**National Transport Commission (Australia)**

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

<b>Dangerous Goods Classification</b>	Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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**15. REGULATORY INFORMATION**

<b>General Information</b>	FORMALDEHYDE
<b>Poisons Schedule (Aust)</b>	Schedule 6

**Environmental Protection Authority (New Zealand)**

Hazardous Substances and New Organisms Amendment Act 2015

<b>Approval Code</b>	HSR001518 (Reissued)
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**National/Regional Inventories**

<b>Australia (AIC)</b>	Listed
<b>Canada (DSL)</b>	Not Determined
<b>Canada (NDSL)</b>	Not Determined
<b>China (IECSC)</b>	Not Determined
<b>Europe (EINECS)</b>	200-001-8
<b>Europe (REACH)</b>	Not Determined
<b>Japan (ENCS/METI)</b>	Not Determined
<b>Korea (KECI)</b>	Not Determined
<b>Malaysia (EHS Register)</b>	Not Determined
<b>New Zealand (NZIoC)</b>	Listed
<b>Philippines (PICCS)</b>	Not Determined
<b>Switzerland (Giftliste 1)</b>	Not Determined



Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Not Determined

## 16. OTHER INFORMATION

<b>Related Product Codes</b>	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
<b>Revision</b>	5
<b>Revision Date</b>	23 Mar 2021
<b>Reason for Issue</b>	SDS updated.
<b>Key/Legend</b>	<p>&lt; Less Than &gt; Greater Than</p> <p><b>AICS</b> Australian Inventory of Chemical Substances <b>atm</b> Atmosphere <b>CAS</b> Chemical Abstracts Service (Registry Number) <b>cm<sup>2</sup></b> Square Centimetres <b>CO<sub>2</sub></b> Carbon Dioxide <b>COD</b> Chemical Oxygen Demand <b>deg C (°C)</b> Degrees Celcius <b>EPA (New Zealand)</b> Environmental Protection Authority of New Zealand <b>deg F (°F)</b> Degrees Farenheit <b>g</b> Grams <b>g/cm<sup>3</sup></b> Grams per Cubic Centimetre <b>g/l</b> Grams per Litre <b>HSNO</b> Hazardous Substance and New Organism <b>IDLH</b> Immediately Dangerous to Life and Health <b>immiscible</b> Liquids are insoluable in each other. <b>inHg</b> Inch of Mercury <b>inH<sub>2</sub>O</b> Inch of Water <b>K</b> Kelvin <b>kg</b> Kilogram <b>kg/m<sup>3</sup></b> Kilograms per Cubic Metre <b>lb</b> Pound <b>LC<sub>50</sub></b> LC stands for lethal concentration. LC<sub>50</sub> is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours. <b>LD<sub>50</sub></b> LD stands for Lethal Dose. LD<sub>50</sub> is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals. <b>ltr</b> or <b>L</b> Litre <b>m<sup>3</sup></b> Cubic Metre <b>mbar</b> Millibar <b>mg</b> Milligram <b>mg/24H</b> Milligrams per 24 Hours <b>mg/kg</b> Milligrams per Kilogram <b>mg/m<sup>3</sup></b> Milligrams per Cubic Metre <b>Misc</b> or <b>Miscible</b> Liquids form one homogeneous liquid phase regardless of the amount of either component present. <b>mm</b> Millimetre <b>mmH<sub>2</sub>O</b> Millimetres of Water <b>mPa.s</b> Millipascals per Second <b>N/A</b> Not Applicable</p>



**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

