

**MSDS 2420** Date of Issue/re-issue: **29.01.2015**

User declaration:- I have read and understood this Safety Data Sheet

Name:- \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

Company Name



Address: 39 Woodside Ave, Northcote, Auckland , New Zealand

Emergency Tel: NZ 0800154666 Tel +64 9 480 4386 FAX +64 9 480 4385

Product	Formaldehyde			Code	2420
CAS#	HSNO#	UN #	DG Class/es	Packing group #	
50-00-0 67-56-1	HSR002628	2209	8	III	

**Recommended use:** Laboratory Investigations

**2. Hazards Identification**

**2.1 GHS Classification**

Flammable Liquids (Category D)  
Acute toxicity, Oral (Category C)  
Acute toxicity, Inhalation (Category C)  
Acute toxicity, Dermal (Category C)  
Skin corrosion (Category B)  
Serious eye damage (Category A)  
Skin sensitisation (Category B)  
Carcinogenicity (Category B)  
Specific Target Organ Toxicity (Category A)  
Aquatic toxicity (Acute or Chronic) (Category D)

**2.2 GHS Label elements, including precautionary statements**



Pictogram

Signal word **Danger**

Hazard statement(s)

H227 Combustible liquid.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H331 Toxic if inhaled.

H351 Suspected of causing cancer.

H370 Causes damage to organs.

H402 Harmful to aquatic life.

Precautionary statement(s)

Prevention

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

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.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/ physician.

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

P361 Remove/Take off immediately all contaminated clothing.

P363 Wash contaminated clothing before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

## **2.3 Other hazards - none**

<b>Hazard Classification</b>	Australia: Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia. Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. New Zealand: Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001. Classified as Dangerous Goods for transport, according to the New Zealand Standard NZS 5433:1999 Transport of Dangerous Goods on Land. HSNO Classification: 3.1D - Flammable Liquid: Low Hazard. 6.1B - Substance that is acutely toxic by inhalation. 6.5B - Substance that is a contact sensitiser. 6.6B - Substance that is a suspected human mutagen.
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- 6.7A - Substance that is a known or presumed human carcinogen.  
 6.8B - Substance that is a suspected human reproductive or developmental toxicant.  
 6.9B - Substance that is harmful to human target organs or systems.  
 9.1D - Substance that is slightly harmful to the aquatic environment or is otherwise designed for biocidal action.  
 9.2C - Substance that is harmful in the soil environment.  
 9.3B - Substance that is ecotoxic to terrestrial vertebrates.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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Ingredients	Name	CAS	Proportion
	Formaldehyde	50-00-0	30-60 %
	Methanol	67-56-1	0-<10 %
	Other ingredients determined not to be hazardous		Balance to 100%

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### 4. FIRST AID MEASURES

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<b>Inhalation</b>	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. Seek urgent medical advice.
<b>Ingestion</b>	If swallowed, do NOT induce vomiting. Wash out mouth with water. Seek medical attention.
<b>Skin</b>	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Ensure contaminated clothing is washed before re-use or discard. Seek medical attention.
<b>Eye</b>	If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
<b>First Aid Facilities</b>	Eye wash station, safety shower and normal washroom facilities.
<b>Advice to Doctor</b>	Treat symptomatically.
<b>Other Information</b>	For advice, contact a Poisons Information Centre (Phone eg Australia 131 126; New Zealand 0800 764 766) or a doctor (at once).

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### 5. FIRE FIGHTING MEASURES

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**Suitable Extinguishing Media** Use water spray, foam, carbon dioxide or dry chemical to extinguish fire. Use water spray to cool storage tanks, pipelines and fire-exposed surfaces.

**Hazards from Combustion Products** Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide and carbon dioxide.

**Specific Hazards** Combustible liquid. Keep away from naked flames, sparks and other sources of ignition.

**Hazchem Code** 2Z

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## 6. ACCIDENTAL RELEASE MEASURES

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**Emergency Procedures** Wear appropriate personal protective equipment and clothing to minimise exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unnecessary personnel. If possible contain the spill. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into a suitable labelled container for subsequent disposal. Dispose of waste according to the Environmental Protection Authority (EPA), federal, state and local regulations. If large quantities of this material enter the waterways contact the EPA, or your local Waste Management Authority.

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## 7. HANDLING AND STORAGE

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**Precautions for Safe Handling** Use only in a well ventilated area. DO NOT store or use in confined spaces. Do not enter these areas without respiratory protection or until the atmosphere has been checked. Keep tank covered and containers sealed when not in use. Build up of mists or vapours in the atmosphere must be prevented. Avoid inhalation of vapour and mists. Do not use near welding or other ignition sources and avoid sparks. Do not smoke. When dealing with large quantities, repeated or prolonged exposure without protection should be prevented in order to lessen the possibility of disorders. It is essential that all who come into contact with this material, maintain high standards of personal hygiene ie. washing hands prior to eating, drinking, smoking or using toilet facilities.

**Conditions for Safe Storage** Classified as a Class C1 (COMBUSTIBLE LIQUID) for the purposes of storage and handling. Store in a cool, dry well-ventilated area away from heat, sources of ignition, oxidising agents, foodstuffs, and clothing and out of direct sunlight. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Do NOT pressurise, cut, heat or weld containers as they may contain hazardous residues. For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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<b>National Exposure Standards</b>	<p>Australian National Occupational Health And Safety Commission (NOHSC) Exposure Standards:</p> <p>Substance TWA STEL NOETS ppm mg/m<sup>3</sup> ppm mg/m<sup>3</sup> Formaldehyde 0.3 0.36 0.6 0.72 Sen methanol 200 262 250 328 Sk</p> <p>New Zealand Occupational Safety and Health Service (OSH) Workplace Exposure Standards:</p> <p>Substance TWA STEL NOETS ppm mg/m<sup>3</sup> ppm mg/m<sup>3</sup> Formaldehyde (Ceiling) 1 1.2 - - Sen methanol 200 262 250 328 Sk</p>
<b>Biological Limit Values</b>	No biological limit allocated.
<b>Other Exposure Information</b>	<p>As published by the New Zealand Occupational Safety and Health Service (OSH): As published by the National Occupational Health and Safety Commission (NOHSC): TWA - the Time-Weighted Average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life. STEL (Short Term Exposure Limit) - the average airborne concentration over a 15-minute period, which should not be exceeded at any time during a normal eight-hour workday. 'Sk' notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur. 'Sen' notice - sensitiser. The substance can cause a specific immune response in some people. An affected individual may subsequently react to exposure to minute levels of that substance.</p>
<b>Engineering Controls</b>	Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required. Refer to AS1940 - The storage and handling of flammable and combustible liquids and AS2430 - Explosive gas atmospheres for further information concerning ventilation requirements.
<b>Respiratory Protection</b>	If engineering controls are not effective in controlling airborne exposure then respiratory protective equipment should be used suitable for protecting against airborne contaminants. Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices.
<b>Eye Protection</b>	Safety glasses with side shields or face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual

circumstances ie. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337- Eye Protectors for Industrial Applications.

**Hand Protection** Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

**Body Protection** Suitable work wear should be worn to protect personal clothing, eg cotton overalls buttoned at neck and wrist. When large quantities are handled the use of plastic aprons and rubber boots is recommended. Industrial clothing should conform to the specifications detailed in AS/NZS 2919: Industrial clothing.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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**Appearance** Water white solution.

**Odour** Not available.

**Melting Point** Not available.

**Boiling Point** <100°C

**Solubility in Water** Miscible.

**Solubility in Organic Solvents** Miscible in alcohol and acetone.

**Specific Gravity** Approximately 1.1

**pH Value** 2.4-4.0

**Vapour Pressure** Reid vapour pressure: 0.09 psia

**Vapour Density (Air=1)** 1.08 (Air=1)

**Odour Threshold** 0.5-1ppm

**Flash Point** Approximately 85°C

**Auto-Ignition Temperature** 430°C

**Flammable Limits -** 7% (formaldehyde)

Lower

**Flammable Limits -  
Upper**

73% (formaldehyde)

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## 10. STABILITY AND REACTIVITY

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**Chemical Stability** On storage a white deposit of paraformaldehyde may form. On standing when cold, may become cloudy. When exposed to low temperatures a precipitate of trioxymethylene is formed.

**Conditions to Avoid** Heat, direct sunlight, open flames or other sources of ignition.

**Incompatible  
Materials** Strong acids, oxidants and alkalis.

**Hazardous  
Decomposition  
Products** Thermal decomposition and combustion produce noxious fumes containing oxides of carbon.

**Hazardous  
Polymerization** Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

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**Inhalation** Toxic by inhalation. Symptoms may include coughing. Severe exposure may result in serious respiratory effects, such as bronchitis, pulmonary edema or pneumonia.

**Ingestion** Toxic if swallowed. Causes burns. May cause burning of the gastrointestinal system. Symptoms may include nausea, central nervous system depression, vomiting, diarrhoea, abdominal pain and burns, and possibly unconsciousness.

**Skin** Toxic in contact with skin. Causes burns. Methanol can be absorbed through the skin with resultant toxic effects. Symptoms may include redness, blistering and scarring. Repeated or prolonged skin contact may lead to dermatitis. May cause sensitization by skin contact.

**Eye** Causes burns. Symptoms may include redness, excessive tearing, stinging, swelling. Contamination of the eyes can result in permanent damage.

**Chronic Effects** Possible risk of irreversible effects.

**Carcinogenicity** It is important to recognise that this product is classified as a Category 2 Carcinogen according to National Occupational Health And Safety Commission (NOHSC). That is, there is sufficient evidence, on the basis of appropriate long term animal studies or other relevant information, to provide a strong presumption that human exposure

to this substance may result in the development of cancer.

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## 12. ECOLOGICAL INFORMATION

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<b>Ecotoxicity</b>	No data available for this specific material.
<b>Persistence / Degradability</b>	No data available for this specific material.
<b>Mobility</b>	No data available for this specific material.
<b>Bioaccumulative Potential</b>	No data available for this specific material.
<b>Environment Protection</b>	Do not allow product to enter drains, waterways or sewers.

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## 13. DISPOSAL CONSIDERATIONS

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<b>Disposal Considerations</b>	Dispose of waste according to Environmental Protection Authority, federal, state and local regulations.
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## 14. TRANSPORT INFORMATION

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<b>Transport Information</b>	<p>This material is a Class 8 Corrosive Substance according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 8 - Corrosive Substances are incompatible in a placard load with any of the following:</p> <ul style="list-style-type: none"><li>- Class 1, Explosives,</li><li>- Class 4.3, Dangerous When Wet Substances,</li><li>- Class 5.1, Oxidising Agents &amp; Class 5.2 - Organic Peroxides,</li><li>- Class 6, Toxic Substances (where the Toxic substances are cyanides and the corrosives are acids),</li><li>- Class 7, Radioactive Substances,</li><li>- Class 8, Corrosive Substances (concentrated strong acid is to be segregated from strong alkali),</li></ul> <p>and are incompatible with food and food packaging in any quantity.</p> <p>This material is classified as a Class 8 - Corrosive Liquid according to NZS 5433:1999 Transport of Dangerous Goods on Land.</p> <p>Must not be loaded in the same freight container or on the same vehicle with:</p> <ul style="list-style-type: none"><li>- (Class 1) Explosives</li><li>- (Class 5.1) Oxidising substances</li><li>- (Class 5.2) Organic peroxides or</li><li>- (Class 7) Radioactive materials unless specifically exempted.</li><li>- Food Items.</li></ul>
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- Note 1. Cyanides (Class 6.1) must not be loaded in the same freight container or on the same vehicle with acids (Class 8).
  - Note 2. Strong acids must not be loaded in the same freight container or on the same vehicle with strong alkalis. Packing Group I and II acids and alkalis should be considered strong.
- Must not be loaded with in the same freight container; and on the same vehicle must be separated horizontally by at least 3 metres unless all but one are packed in separate freight containers with:
- (Class 4.3) Dangerous when wet substances
- Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:
- (Class 4.3) Dangerous when wet substances
  - (Class 5.1) Oxidising substances
  - (Class 5.2) Organic peroxides
  - Food items.

<b>U.N. Number</b>	2209
<b>Proper Shipping Name</b>	FORMALDEHYDE SOLUTION
<b>DG Class</b>	8
<b>Hazchem Code</b>	2Z
<b>Packaging Method</b>	3.8.8RT7,RT8
<b>Packing Group</b>	III
<b>EPG Number</b>	8A1
<b>IERG Number</b>	19

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## 15. REGULATORY INFORMATION

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<b>Regulatory Information</b>	Australia: Classified as hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC). Poison Schedule: Schedule 6
<b>Poisons Schedule</b>	S6
<b>National and or International Regulatory Information</b>	New Zealand: Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001. Group Standard: N.O.S. (Toxic [6.1, 6.7], Corrosive, Combustible) Group Standard 2006

HSNO Approval Number: HSR002628

**Hazard Category**     Toxic, Corrosive

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#### 16. Disclaimer

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The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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