



# SAFETY DATA SHEET

**FORMALIN 37%**

Infosafe No.: 7EFAF  
ISSUED Date : 25/10/2016  
ISSUED by: JASOL NEW ZEALAND

**CLASSIFIED AS HAZARDOUS**

## 1. IDENTIFICATION

### GHS Product Identifier

FORMALIN 37%

### Product Code

2182790, 2182800, 2183430

### Company Name

JASOL NEW ZEALAND

### Address

81 Leonard Road  
Mt. Wellington Auckland  
NEW ZEALAND

### Telephone/Fax Number

Tel: +64 9 580 2105  
Fax: +64 9 571 4388

### Emergency phone number

0800 243 622

### Emergency Contact Address

North Island:  
81 Leonard Road, Mt. Wellington, Auckland 1060  
Phone: +64 9 5802105  
Fax: +64 9 5714388

South Island:  
105 Rutherford Street, Christchurch 8023  
Phone: +64 3 3844433  
Fax: +64 3 3844431

### (24 hour a day available)

0800 243622

### E-mail Address

jasolnzorders@gwf.com.au

### Recommended use of the chemical and restrictions on use

Used as disinfectant; germicide and fungicide for plants, vegetables; Manufacture of phenolic resins, artificial silk and cellulose esters, dyes, organic chemicals, glass mirrors, explosives; tanning and preserving hides. Also used for mordanting (improving fastness of dyes) on fabrics; preserving and coagulating rubber latex; in embalming fluids. In photography for hardening gelatin plates and papers, toning gelatin-chloride papers, chrome printing and developing. To prevent mildew and spelt in wheat and rot in oats; to render casein, albumin and gelatin insoluble; also as laboratory chemical.

### Other Names

Name	Product Code
Formaldehyde, Formaldehyde solution, Formalin, Methaldehyde, Methylaldehyde, Methylene oxide, Oxomethane, Oxymethylene	

## 2. HAZARD IDENTIFICATION

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### GHS classification of the substance/mixture

Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand.  
Classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2012 Transport of Dangerous Goods on Land.

3.1D Flammable liquids: low hazard

6.1B (Inhalation – vapours, dusts or mists) - Substance that is acutely toxic

6.5B Substance that is a contact sensitiser

6.6B Substance that is a suspected human mutagen

6.7A Substance that is known or presumed to be a human carcinogen

6.9B (Single exposure) - Substance that is harmful to human target organs or systems

8.2C Substance that is corrosive to dermal tissue

8.3A Substance that is corrosive to ocular tissue

9.1D Substance that is slightly harmful to the aquatic environment or is otherwise designed for biocidal action

9.2A Substance that is very ecotoxic in the soil environment

9.3B Substance that is ecotoxic to terrestrial vertebrates

### Signal Word (s)

DANGER

### Hazard Statement (s)

H227 Combustible liquid.

H301 Toxic if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H330 Fatal if inhaled.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

H421 Very toxic to the soil environment.

H432 Toxic to terrestrial vertebrates.

### Precautionary Statement (s)

P102 Keep out of reach of children.

P103 Read label before use.

### Pictogram (s)

Corrosion,Skull and crossbones,Health hazard,Environment



### Precautionary statement – 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 contaminated skin thoroughly after handling.

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.

P281 Use personal protective equipment as required.

P284 Wear respiratory protection.

### Precautionary statement – Response

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

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

P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 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.  
 P308+P313 IF exposed or concerned: Get medical advice/attention.  
 P310 Immediately call a POISON CENTER or doctor/physician.  
 P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
 P314 Get medical advice/attention if you feel unwell.  
 P320 Specific treatment is urgent (see on this label).  
 P321 Specific treatment (see on this label).  
 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 for extinction.  
 P391 Collect spillage.

**Precautionary statement – 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.

**Precautionary statement – Disposal**

P501 In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided. See Section 13 for disposal details.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Ingredients**

Name	CAS	Proportion
Formaldehyde	50-00-0	36 - 38%
Methanol	67-56-1	6 - 10%
Water	7732-18-5	Remainder

**4. FIRST-AID MEASURES**

**Inhalation**

If inhaled, remove from contaminated area to fresh air and keep at rest in a comfortable breathing position. Immediately seek medical attention.

**Ingestion**

Contact the National Poisons Centre at 0800 764 766 (0800 POISON) or +64 3 479 7248 or a doctor immediately. If swallowed DO NOT induce vomiting. Rinse mouth. If vomiting occurs, place victim on left hand side with head down to prevent aspiration of vomit.

**Skin**

If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Immediately seek medical attention. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

**Eye contact**

If in eyes, hold eyelids apart and flush continuously with running water. Immediately seek medical attention. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

**First Aid Facilities**

Eye wash facilities and safety shower should be available.

**Advice to Doctor**

1. Most Important Symptoms and Effects, Both Acute and Delayed:

Inhalation may cause lung oedema. Ingestion causes severe corrosion of the gastro-intestinal tract and systemic effects.

Inflammation and ulceration may progress to strictures. Severe acidosis results from rapid conversion of formaldehyde to formic acid. Coma, hypotension, renal failure and apnoea complicate ingestion. Reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested.

2. Immediate Medical Attention and Special Treatment Needed:  
Treat symptomatically for corrosives.

## 5. FIRE-FIGHTING MEASURES

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### Suitable Extinguishing Media

Alcohol foam, carbon dioxide or dry chemical.

### Specific Hazards Arising From The Chemical

Combustible liquid. At elevated temperatures, vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity. Vapour is heavier than air and may flow along surfaces to distant ignition source and flashback.

### Hazchem Code

2X

### Decomposition Temperature

Not available

### Other Information

Advice for Firefighters:

Protective equipment should include self-contained breathing apparatus, safety boots, non-flammable overalls, gloves, hat and eye protection.

## 6. ACCIDENTAL RELEASE MEASURES

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### Methods And Materials For Containment And Cleaning Up

Contain spills and clean up using sand, soil or vermiculite or other inert absorbent material. Rags are not recommended. Collect and seal in appropriate labelled containers or drums for disposal.

### Personal Protection

Wear protective equipment to prevent skin and eye contamination and the inhalation of vapour. Work upwind or increase ventilation. Clear area of unprotected personnel. Shut off all possible sources of ignition. In the event of spillage notify appropriate agencies.

### Environmental Precautions

Prevent from entering soil, drains and waterways. Notify appropriate agencies if contamination of drains, waterways or soil has occurred.

### Other Information

Reference to Other Sections:

See Sections 8 and 13 for exposure controls and disposal.

## 7. HANDLING AND STORAGE

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### Precautions for Safe Handling

Avoid all personal contact. Wear appropriate protective equipment as listed in section 8 of this SDS. Use in a well-ventilated area.

### Conditions for safe storage, including any incompatibilities

Container:

Containers must bear the prescribed labelling. Check regularly for leaks

Storage:

Store out of reach of children. Keep containers closed and away from food, extreme heat and open flames. Avoid contact with incompatible substances listed in section 10 of this SDS.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Occupational exposure limit values

Source: New Zealand Workplace Standards (WES)

Material	TWA	STEL	Peak
formaldehyde	0.5ppm (8 hour shift), 0.33ppm (12 hour shift)		no data
methanol	200ppm, 262 mg/m <sup>3</sup>	250ppm, 328mg/m <sup>3</sup>	no data

### Appropriate Engineering Controls

General exhaust ventilation under normal operating conditions or may require local exhaust ventilation in special circumstances

### Personal Protective Equipment

Eye / Face: Chemical goggles, safety glasses or full face mask.

Hands: Chemical protective gloves e.g. PVC.

Body: Safety footwear or gumboots e.g. rubber. Overalls worn outside of boots.

Respiratory: A full facepiece respirator with Formaldehyde cartridge. Air respirator should be considered in event of excessive exposure (e.g. higher than WES).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Appearance

Liquid

### Colour

clear

### Odour

Pungent odour

### Decomposition Temperature

Not available

### Melting Point

Not available

### Boiling Point

Not available

### Solubility in Water

Miscible

### Specific Gravity

1.08 - 1.10

### pH

pH (1% solution): Not available

pH (as supplied): 3.0 - 4.0

### Vapour Pressure

Not available

### Vapour Density (Air=1)

Not available

### Evaporation Rate

Not available

### Volatile Component

10% methanol

### Flash Point

60 - 69°C

**Auto-Ignition Temperature**

Not available

**Flammable Limits - Lower**

Not available

**Flammable Limits - Upper**

Not available

**Molecular Weight**

Not applicable

## 10. STABILITY AND REACTIVITY

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**Reactivity**

Contact with alkaline material liberates heat.

**Chemical Stability**

Stable under normal conditions of use.

**Conditions to Avoid**

Combustible substances. Keep away from sources of ignition at all times

**Incompatible materials**

Avoid contact with strong oxidisers, strong alkalis, strong mineral acids, and phenol

**Hazardous Decomposition Products**

None known.

**Possibility of hazardous reactions**

On combustion may form formaldehyde gas, carbon dioxide, carbon monoxide, and various hydrocarbons.

## 11. TOXICOLOGICAL INFORMATION

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**Toxicology Information**

Direct contact may produce carcinogenic or mutagenic effects.

**Ingestion**

If swallowed toxic effects may result from accidental ingestion and may be fatal or may produce serious damage to the health of the individual.

**Inhalation**

Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system in a substantial number of individuals following inhalation.

**Skin**

" Skin contact with the material may produce toxic effects; systemic effects may result following absorption.

**Eye**

Corrosive to eyes. Can cause chemical burns following direct contact. Vapours and mists may be extremely irritating.

**Skin corrosion/irritation**

The material may produce severe skin irritation after prolonged or repeated exposure, and may produce a contact dermatitis (non-allergic). This form of dermatitis is often characterised by skin redness (erythema) thickening of the epidermis.

**Serious eye damage/irritation**

May produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

**STOT-repeated exposure**

Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems

**Chronic Effects**

- May produce carcinogenic or mutagenic effects. In respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment. Although excess occurrence of a number of cancers has been reported in humans, the evidence for a possible involvement of formaldehyde is strongest for nasal and nasopharyngeal cancer.
- Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-

allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.

- Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue.
- 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.
- Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.
- Chronic occupational exposures to formic acid may produce nausea and albumin or blood in the urine.
- 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.

## 12. ECOLOGICAL INFORMATION

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### **Ecotoxicity**

Considered harmful to aquatic organisms and terrestrial vertebrates. Is not considered harmful to terrestrial invertebrates.

### **Persistence and degradability**

Not considered persistent in the aquatic environment. Formaldehyde degrades rapidly in soil.

### **Mobility**

May be toxic to the soil environment.

### **Bioaccumulative Potential**

Formaldehyde and methanol are not bioaccumulative

### **Other Adverse Effects**

No further information available.

## 13. DISPOSAL CONSIDERATIONS

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### **Waste Disposal**

The material and its container must be disposed of as hazardous waste and must comply with the requirements of the Resource Management Act. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.

### **Local Legislation**

Recycle where possible otherwise ensure that:

- Licenced contractors dispose of the product and its container.
- Disposal occurs at a licenced facility.

## 14. TRANSPORT INFORMATION

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### **U.N. Number**

2209

### **UN proper shipping name**

FORMALDEHYDE SOLUTION

### **Transport hazard class(es)**

8

### **Sub.Risk**

None

### **Packing Group**

III

### **Hazchem Code**

2X

### **IERG Number**

19

**UN Number (Sea Transport)**

2209

**UN Number (Road Transport)**

2209

**UN Number (Air Transport, ICAO)**

2209

**IATA/ICAO Hazard Class**

8

**IATA/ICAO Packing Group**

III

**IATA/ICAO Sub Risk**

None

**LIMITED QUANTITY - Max Net Quantity/Pkge**

5L

**IMDG UN No**

2209

**IMDG Hazard Class**

8

**IMDG Sub. Risk**

None

**IMDG Pack. Group**

III

**IMDG Subsidiary Risk**

None

**IMDG Marine pollutant**

Yes

**IMDG EMS**

Fire: F-A, Spill: S-B



## 15. REGULATORY INFORMATION

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### National and or International Regulatory Information

Formaldehyde. (CAS: 50-00-0) is found on the following regulatory lists;

"GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs",

"International Chemical Secretariat (ChemSec) REACH SIN\* List (\*Substitute It Now!) 1.0", "International Council of Chemical Associations (ICCA) - High Production Volume List", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Dangerous Goods", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Scheduled Toxic Substances", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Veterinary Medicines", "New Zealand Inventory of Chemicals (NZIoC)", "New Zealand Workplace Exposure Standards (WES)", "OECD Representative List of High Production Volume (HPV) Chemicals", "WHO Guidelines for Drinking-water Quality - Guideline values for chemicals that are of health significance in drinking-water".

Methanol (CAS: 67-56-1) is found on the following regulatory lists;

"GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances", "International Council of Chemical Associations (ICCA) - High Production Volume List", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Dangerous Goods", "New Zealand Inventory of Chemicals (NZIoC)", "New Zealand Workplace Exposure Standards (WES)", "OECD Representative List of High Production Volume (HPV) Chemicals"

Water (CAS: 7732-18-5) is found on the following regulatory lists;

"IMO IBC Code Chapter 18: List of products to which the Code does not apply", "New Zealand Inventory of Chemicals (NZIoC)", "OECD Representative List of High Production Volume (HPV) Chemicals".

### HSNO Approval Number

HSR001518

### Other Information

Specific advice on controls required for materials used in New Zealand can be found at <http://www.epa.govt.nz/hazardous-substances/approvals/Pages/default.aspx>.

## 16. OTHER INFORMATION

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### Date of preparation or last revision of SDS

25/10/2016

### Technical Contact Numbers

24 Hour Emergency Contact: 0800 CHEMCALL (0800 243 622)

New Zealand Poisons Information Centre: 0800 POISON (0800 764 766)

New Zealand Emergency Services: 111

### Other Information

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Jasol NZ cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Jasol NZ representative or Jasol NZ at the contact details on page 1.

Jasol NZ's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

## END OF SDS

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