



## SAFETY DATA SHEET

### Section 1. Identification of the material and the supplier

Product: **Rigid Arterial Fluid**  
 Product Use: Arterial embalming fluid  
 Restriction of Use in NZ: Refer to Section 15

**New Zealand Supplier:** **Thirty SixPlus Embalmers**  
 Address: 18 Norman Spencer Drive  
 Manukau City  
 Auckland  
 2104

Telephone: 0800 362 256  
 Fax: +64 9 262 3705  
**Emergency No:** **0800 764 766 (National Poison Centre)**

**Australia Supplier:** **XXX**  
 XXX  
 XXX

Tel: +61 XXX  
**Australian Emergency No** **13 11 26 (National Poison Centre)**

Date of SDS Preparation: 1 August 2019

### Section 2. Hazards Identification

**Australia:**  
 Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia

**New Zealand:**  
 This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

**EPA Approval No:** Embalming Products (Toxic[6.1], Corrosive, Combustible) – HSR002567

**Pictograms**



Toxic    Allergic    Chronic    Corrosive    Ecotoxic

Signal Word: **DANGER**

NZ HSNO Classification	Hazard Code	Hazard Statement	GHS Category
3.1D	H227	Combustible liquid.	Flam. Liq. 4

6.1B (inh)	H330	Fatal if inhaled.	Acute Tox. 2
6.1C (dermal)	H311	Toxic in contact with skin.	Acute Tox. 3
6.1D (oral)	H302	Harmful if swallowed.	Acute Tox. 4
6.5B	H317	May cause an allergic skin reaction.	Skin Sens. 1
6.6B	H341	Suspected of causing genetic defects.	Muta. 2
6.7A	H350	May cause cancer.	Carc. 1B
6.8B	H361	Suspected of damaging fertility or the unborn child.	Repr. 2
6.9A	H372	Causes damage to organs through prolonged or repeated exposure.	STOT RE 1
8.2C	H314	Causes severe skin burns and eye damage.	Skin Corr. 1C
8.3A	H318	Causes serious eye damage.	Eye Corr. 1
9.1D	H413	May cause long lasting harmful effects to aquatic life.	Aquatic Chronic 4
9.2A	H421	Toxic to the soil environment.	-
9.3B	H432	Harmful to terrestrial vertebrates.	-

<b>Prevention Code</b>	<b>Prevention Statement</b>
P102	Keep out of reach of children.
P103	Read label before use.
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 or hot surfaces. No smoking.
P260	Do not breathe fumes, vapours or spray.
P264	Wash hands 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 clothing as detailed in Section 8.
P281	Use personal protective equipment as required.
P284	Wear respiratory protection.

<b>Response Code</b>	<b>Response Statement</b>
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
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 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.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P370 + P378	In case of fire: Use foam, dry chemical powder, BCF or Carbon Dioxide for extinction.

<b>Storage Code</b>	<b>Storage Statement</b>
P405	Store locked up.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

### Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.
Formaldehyde	35	50-00-0
Triethanolamine	1-4	102-71-6
Methanol	7-11	67-56-1
Non-Hazardous	To bal	

### Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.
If on Skin	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: get medical advice/attention.
If Swallowed	<p>Urgent hospital treatment is likely to be needed.</p> <p>In the meantime, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition. If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the MSDS should be provided. Further action will be the responsibility of the medical specialist.</p> <p>If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the MSDS.</p> <p>Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise: INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. NOTE: Wear a protective glove when inducing vomiting by mechanical means.</p>
If Inhaled	<p>Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Apply artificial respiration if not breathing. Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema.</p> <p>Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs). As this 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.</p> <p>Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered. Get medical advice if breathing becomes difficult.</p>

#### Most important symptoms and effects, both acute and delayed

Symptoms:

**Ingestion:** Harmful if swallowed. Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733) This substance if swallowed may cause immediate severe abdominal pain, with vomiting, nausea, passage of frequent watery stool, reduced or no urine

**Inhalation:**

production, dizziness, followed by unconsciousness, convulsions and may result in death. It can also cause sight problems and possible permanent blindness. Toxic effects may result from the accidental ingestion of Fatal if inhaled. There is strong evidence to suggest that this material can cause, if inhaled once, serious, irreversible damage of organs. Minor but regular methanol exposures may affect 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.

cumulative poison which cannot be made non-harmful [CCINFO]  
Inhalation of vapour at low concentrations may cause a tingling sensation in the nose and airway.

**Skin:**

Toxic if in contact with skin. Causes severe skin burns. May cause an allergic skin reaction. Skin contact with the material may produce toxic effects; systemic effects may result following absorption. The material can produce chemical burns following direct contact with the skin. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the bloodstream through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

**Eye:**

The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating. If applied to the eyes, this material causes severe eye damage.

**Chronic:**

Suspected of causing genetic defects.  
May cause cancer.  
Suspected of damaging fertility or the unborn child.  
Causes damage to organs through prolonged or repeated exposure.

**Indication of any immediate medical attention and special treatment needed**

Any material aspirated during vomiting may produce lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours for corrosives:

**BASIC TREATMENT**

Establish a patent airway with suction where necessary.  
Watch for signs of respiratory insufficiency and assist ventilation as necessary.  
Administer oxygen by non-rebreather mask at 10 to 15 l/min.  
Monitor and treat, where necessary, for pulmonary oedema. Monitor and treat, where necessary, for shock.  
Anticipate seizures.  
Where eyes have been exposed, flush immediately with water and continue to irrigate with normal saline during transport to hospital.  
DO NOT use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.  
Skin burns should be covered with dry, sterile bandages, following decontamination.  
DO NOT attempt neutralisation as exothermic reaction may occur.

**ADVANCED TREATMENT**

Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred. Positive-pressure ventilation using a bag-valve mask might be of use.  
Monitor and treat, where necessary, for arrhythmias.  
Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications. Drug therapy should be considered for pulmonary oedema. Hypotension with signs of hypovolaemia requires the cautious administration of fluids.

Fluid overload might create complications. Treat seizures with diazepam.  
 Proparacaine hydrochloride should be used to assist eye irrigation.

**EMERGENCY DEPARTMENT**

Laboratory analysis of complete blood count, serum electrolytes, BUN, creatinine, glucose, urinalysis, baseline for serum aminotransferases (ALT and AST), calcium, phosphorus and magnesium, may assist in establishing a treatment regime.

Positive end-expiratory pressure (PEEP)-assisted ventilation may be required for acute parenchymal injury or adult respiratory distress syndrome.

Consider endoscopy to evaluate oral injury.

Consult a toxicologist as necessary.

BRONSTEIN, A.C. and CURRANCE, P.L. EMERGENCY CARE FOR HAZARDOUS MATERIALS  
 EXPOSURE: 2nd Ed. 1994

**For acute or short-term repeated exposures to formaldehyde:**

**INGESTION:**

Patients present early with 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.

Decontaminate by dilution with milk or water containing ammonium acetate; vomiting should be induced. Follow with gastric lavage using a weak ammonia solution (converts formaldehyde to relatively inert pentamethylenetetramine)

Gastric lavage is warranted only in first 15 minutes following ingestion.

**SKIN:**

Formaldehyde can combine with epidermal protein to produce a hapten-protein couple capable of sensitising T-lymphocytes. Subsequent exposures cause a type IV hypersensitivity reaction (i.e allergic contact dermatitis). [Ellenhorn & Barceloux: Medical Toxicology]

**For acute and short-term repeated exposures to methanol:**

Toxicity results from accumulation of formaldehyde/formic acid.

Clinical signs are usually limited to CNS, eyes and GI tract Severe metabolic acidosis may produce dyspnea and profound systemic effects which may become intractable. All symptomatic patients should have arterial pH measured. Evaluate airway, breathing and circulation.

Stabilise obtunded patients by giving naloxone, glucose and thiamine.

Decontaminate with Ipecac or lavage for patients presenting 2 hours post-ingestion. Charcoal does not absorb well; the usefulness of cathartic is not established.

Forced diuresis is not effective; haemodialysis is recommended where peak methanol levels exceed 50 mg/dL (this correlates with serum bicarbonate levels below 18 mEq/L).

Ethanol, maintained at levels between 100 and 150 mg/dL, inhibits formation of toxic metabolites and may be indicated when peak methanol levels exceed 20 mg/dL. An intravenous solution of ethanol in D5W is optimal.

Folate, as leucovorin, may increase the oxidative removal of formic acid. 4-methylpyrazole may be an effective adjunct in the treatment. 8-Phenytoin may be preferable to diazepam for controlling seizure.

[Ellenhorn Barceloux: Medical Toxicology] BIOLOGICAL EXPOSURE INDEX - BEI

Determinant	Index	Sampling Time	Comment
1. Methanol in urine	15 mg/l	End of shift	B, NS
2. Formic acid in urine	80 mg/gm creatinine	Before the shift at end of workweek	B, NS

B: Background levels occur in specimens collected from subjects NOT exposed.

NS: Non-specific determinant - observed following exposure to other materials.

**Section 5. Fire Fighting Measures**

<b>Hazard Type</b>	Combustible flammable.
<b>Hazards from combustion products</b>	On combustion, may emit toxic fumes of carbon monoxide (CO). May emit acrid smoke. Mists containing combustible materials may be explosive. Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.
<b>Suitable</b>	Foam, dry chemical powder, BCF (where regulations permit), carbon

<b>Extinguishing media</b>	dioxide and water spray or fog.
<b>Precautions for firefighters and special protective clothing</b>	Wear full body protective clothing with breathing apparatus. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. Use firefighting procedures suitable for surrounding area. Do not approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location.
<b>HAZCHEM CODE</b>	<b>2X</b>

## Section 6. Accidental Release Measures

### Personal precautions:

Use protective clothing as detailed in Section 8. Avoid breathing vapours and contact with skin and eyes. Clear area of personnel and move upwind. Remove sources of ignition. Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material. Check regularly for spills and leaks.

### Environmental precautions:

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

### Spill and Disposal procedures:

Contain and absorb small quantities with vermiculite or other absorbent material. Dispose of waste safely, according to local Council regulations detailed in Section 13.

## Section 7. Handling and Storage

### Precautions for Handling:

- Read label before use.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat, sparks, open flames or hot surfaces. No smoking.
- Ground/bond container and receiving equipment.
- Use explosion-proof electrical, ventilating, lighting.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- DO NOT allow clothing wet with material to stay in contact with skin.
- Avoid all personal contact, including inhalation.
- Prevent concentration in hollows and sumps.
- Do not breathe fume, vapours, spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- Wear respiratory protection.

### Precautions for Storage:

- Store away from incompatible materials listed in Section 10 such as:
  - (i) Avoid reaction with oxidising agents, strong acids, bases.
  - (ii) Incidents involving interaction of active oxidants and reducing agents, either by design or accident, are usually very energetic and examples of so-called redox reactions.
- Keep out of reach of children.
- Store locked up.
- Store in a cool, well-ventilated place.
- Keep container tightly closed.
- Store in original containers.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- No smoking, naked lights, heat or ignition sources.

**Suitable Containers:**

- Lined metal can, lined metal pail/ can.
- Plastic pail.
- Polyliner drum.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.
- For low viscosity materials
  - (i) Drums and jerry cans must be of the non-removable head type.

**Section 8 Exposure Controls / Personal Protection**

**WORKPLACE EXPOSURE STANDARDS (provided for guidance only)**

Substance	TWA		STEL	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Formaldehyde [50-00-0]	0.5 ppm (8 hour shift) 0.33 ppm (12 hour shift) Ceiling 1 ppm			
Methanol [67-56-1]	200	262	250	328
Triethanolamine [102-71-6]		5		

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2017 9TH EDITION.

**Engineering Controls**

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.

**Personal Protection Equipment**



<b>Eyes</b>	Chemical goggles. Full face shield may be required for supplementary but never for primary protection of eyes. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available.
<b>Hands</b>	Wear chemical protective gloves, e.g. PVC. 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.

<b>Skin</b>	Overalls. PVC Apron. PVC protective suit may be required if exposure severe.
<b>Respiratory</b>	Type BKAX-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)
<b>General</b>	Ensure there is ready access to a safety shower and eyewash unit.

## Section 9 Physical and Chemical Properties

<b>Appearance</b>	Liquid, mixes with water
<b>Colour</b>	Clear orange
<b>Odour</b>	Pungent odour
<b>Odour Threshold</b>	Not available
<b>pH</b>	Not available
<b>Boiling Point</b>	63°C
<b>Melting Point</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	85°C
<b>Flammability</b>	Combustible
<b>Upper and Lower Explosive Limits</b>	6% - 73%
<b>Vapour Pressure</b>	Not available
<b>Vapour Density (Air=1)</b>	<1
<b>Relative Density (Water=1)</b>	1.1
<b>Water Solubility</b>	Miscible
<b>Partition Coefficient:</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Kinematic Viscosity</b>	Not available
<b>Particle Characteristics</b>	Not available
<b>Volatile Component (%vol)</b>	>90

## Section 10. Stability and Reactivity

<b>Stability of Substance</b>	This product is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Avoid reaction with oxidising agents.
<b>Conditions to Avoid</b>	Keep away from heat, sparks, open flames or hot surfaces. No smoking. Avoid inhalation of the product.
<b>Incompatible Materials</b>	Avoid strong acids, acid chlorides, acid anhydrides and chloroformates, copper, aluminium and their alloys and strong bases.
<b>Hazardous Decomposition Products</b>	On combustion, may emit toxic fumes of carbon monoxide (CO). Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

## Section 11 Toxicological Information

### Acute Effects:

<b>Swallowed</b>	Harmful if swallowed. The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion. Strong evidence exists that exposure to the material may produce serious irreversible damage (other than carcinogenesis, mutagenesis and teratogenesis) following a single exposure by swallowing.
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	Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733) This substance if swallowed may cause immediate severe abdominal pain, with vomiting, nausea, passage of frequent watery stool, reduced or no urine production, dizziness, followed by unconsciousness, convulsions and may result in death. It can also cause sight problems and possible permanent blindness. Toxic effects may result from the accidental ingestion of the material; animal experiments indicate that ingestion of less than 40 gram may be fatal or may produce serious damage to the health of the individual.
<b>Dermal</b>	Harmful in contact with skin. There is strong evidence to suggest that this material, on a single contact with skin, can cause serious, irreversible damage of organs. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the bloodstream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. Minor regular skin contact results in hardening of skin, making it feel like leather. It may also cause skin inflammation and an itchy rash especially among workers exposed to formaldehyde in hospitals, in the production of resins, textiles, shampoos and laminated furniture.
<b>Inhalation</b>	Fatal if inhaled. Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may produce toxic effects. There is strong evidence to suggest that this material can cause, if inhaled once, serious, irreversible damage of organs. Minor but regular methanol exposures may affect 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 [CCINFO] Inhalation of vapour at low concentrations may cause a tingling sensation in the nose and airway.
<b>Eye</b>	The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating. If applied to the eyes, this material causes severe eye damage. Irritation of the eyes may produce a heavy secretion of tears (lachrymation).
<b>Skin</b>	Causes severe skin burns. May cause an allergic skin reaction.

**Chronic Effects:**

<b>Carcinogenicity</b>	May cause cancer.
<b>Reproductive Toxicity</b>	Suspected of damaging fertility or the unborn child.
<b>Germ Cell Mutagenicity</b>	Suspected of causing genetic defects.
<b>Aspiration</b>	Not applicable.
<b>STOT/SE</b>	Not applicable.
<b>STOT/RE</b>	Causes damage to organs through prolonged or repeated exposure.
<b>Chronic</b>	Studies show that inhaling this substance for over a long period (e.g. in an occupational setting) may increase the risk of cancer. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

	There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. 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.
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**Individual component information:**

**Acute Toxicity:**

Chemical Name	Oral – LD50	Dermal – LD50	Inhalation – LC50
Formaldehyde	100 mg/kgm(rat)	270mg/kg (rabbit)	250 ppm/4H (rat)
Methanol	>11872769mg/kg (rat)	15800 mg/kg mg/kg (rabbit)	64000 ppm/4h (rat)
Triethanolamine	5559.6mg/kg (female)(rat)	>18080 mg/kg (rat)	-

<b>METHANOL</b>	The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.
<b>TRIETHANOLAMINE</b>	Lachrymation, diarrhoea, convulsions, urinary tract changes, changes in bladder weight, changes in testicular weight, changes in thymus weight, changes in liver weight, dermatitis after systemic exposure, kidney, ureter, bladder tumours recorded. Equivocal tumourigen by RTECS criteria. Dermal rabbit value quoted above is for occluded patch in male or female animals * Union Carbide
<b>FORMALDEHYDE &amp; TRIETHANOLAMINE</b>	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact.

**Section 12. Ecotoxicological Information**

**New Zealand:**

**HSNO Classes:**

- 9.1D = May cause long lasting harmful effects to aquatic life.
- 9.2A = Very toxic to the soil environment.
- 9.3B = Toxic to terrestrial vertebrates.

<b>Persistence and degradability</b>	No data available
<b>Bioaccumulation</b>	No data available
<b>Mobility in Soil</b>	No data available
<b>Other adverse effects</b>	No data available

**Individual component information:**

**Persistence and degradability**

Ingredient	Persistence: Water/Soil	P
formaldehyde	LOW (Half-life = 14 days)	LOW (Half-life = 2.97 days)
methanol	LOW	LOW
triethanolamine	LOW	LOW

**Bioaccumulative potential**

Ingredient	B
formaldehyde	LOW (LogKOW = 0.35)
methanol	LOW (BCF = 10)
triethanolamine	LOW (BCF = 4)

**Mobility in soil**

Ingredient	M
formaldehyde	HIGH (KOC = 1)
methanol	HIGH (KOC = 1)
triethanolamine	LOW (KOC = 10)

Do not allow to enter waterways.

### Section 13. Disposal Considerations

#### Disposal Method:

Spent media that has removed toxic chemicals should be examined for specific hazards. Spilled product may be recovered for use if it has not come in contact with liquids or been exposed to significant amounts of gaseous contaminants. Dispose of according to Local Regulations.

Ensure any container holding waste product or contaminated spill media is labelled "Hazardous Waste – Toxic, Carcinogenic, Corrosive and Ecotoxic" and that the label also has the Toxic, Corrosive, Chronic and Ecotoxic Pictograms, waste type identifier, and the business name, address, and phone number.

**Precautions or methods to avoid:** Avoid release to the environment.

### Section 14 Transport Information

**This product is classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) (7th edition).**

**This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2012**



#### Road, Rail, Sea and Air Transport

<b>UN No</b>	2927
<b>Class - Primary</b>	6.1
<b>Packing Group</b>	II
<b>Sub-Class</b>	8
<b>Proper Shipping Name</b>	TOXIC LIQUIDS, CORROSIVE, ORGANIC, N.O.S. (contains formaldehyde)
<b>Marine Pollutant</b>	No
<b>Special Provisions</b>	If the product's individual container is below 100ml, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

### Section 15 Regulatory Information

#### Australia:

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as a Schedule 6 Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

#### New Zealand:

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval Code: Embalming Products (Toxic[6.1], Corrosive, Combustible) – HSR002567

HSNO Classification: 3.1D, 6.1B(Inh), 6.1C(Dermal), 6.1D(oral), 6.5B, 6.6B, 6.7A, 6.8B, 6.9A/B, 8.2C, 8.3A, 9.1D, 9.2A, 9.3B

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
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Product Name: Rigid  
Date of SDS: 1 August 2019

Prepared by: Technical Compliance Consultants (NZ) Ltd  
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Certified Handler	Yes- Any quantity (6.1B)
Location Certificate	250L (6.1B)
Tracking Trigger Quantities	Yes- Any quantity (6.1B)
Signage Trigger Quantities	250L (6.1B)
Emergency Response Plan	100L (6.1B)
Secondary Containment	100L (6.1B)
Restriction of Use	Only use for the intended purpose.

## Section 16 Other Information

### Glossary

EC <sub>50</sub>	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC <sub>50</sub>	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD <sub>50</sub>	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

### References:

#### Australia:

1. Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.
2. Standard for the Uniform Scheduling of Medicines and Poisons.
3. Australian Code for the Transport of Dangerous Goods by Road & Rail.
4. Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
5. Workplace exposure standards for airborne contaminants, Safe work Australia.
6. American Conference of Industrial Hygienists (ACGIH).
7. Globally Harmonised System of classification and labelling of chemicals.

#### New Zealand:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

### Disclaimer

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

The information herein is given in good faith, but no warranty, express or implied is made.

Please contact the Australian Manufacturer or New Zealand distributor, if further information is required.

Issue Date: 1 August 2019      Review Date: 1 August 2024