

### **SAFETY DATA SHEET**

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

Product: 36 Plus

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

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 (Flammable, Corrosive, Toxic [6.1]) - HSR002564

#### **Pictograms**



Flammable Toxic Allergic Chronic Corrosive Ecotoxic

Signal Word: **DANGER** 

NZ HSNO Classification	Hazard Code	Hazard Statement	GHS Category
3.1C	H226	Flammable liquid and vapour.	Flam. Liq. 3

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	Very toxic to the soil environment.	-
9.3B	H432	Toxic to terrestrial vertebrates.	-

<b>Prevention Code</b>	Prevention Statement
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.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating, lighting.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe fume, vapours, 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.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P361	Remove/Take off immediately all contaminated clothing.
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 + IF IN EYES: Rinse cautiously with water for several minutes. Remove	
P351+P338	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.	

IPS/U + PS/A	In case of fire: Use foam, dry chemical powder, BCF or Carbon Dioxide f extinction.	or
	extinction.	

Storage Code	Storage Statement
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.

<b>Disposal Code</b>	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

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

Ingredients	Wt%	CAS NUMBER.
Formaldehyde	10-<35	50-00-0
Methanol	15-25	67-56-1
Ethylene Dichloride	5-10	107-06-2
Triethanolamine	5-10	102-71-6
Non Hazardous	To bal	

#### Section 4. First Aid Measures

#### Routes of Exposure:

If Inhaled

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 IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE,

WITHOUT DELAY. Urgent hospital treatment is likely to be needed. In the mean time, 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 SDS should be provided. Further action will be the responsibility of the medical

specialist.

If medical attention is not available on the worksite or surroundings send

the patient to a hospital together with a copy of the SDS.

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. Avoid giving milk or oils. Avoid giving alcohol.

If spontaneous vomiting appears imminent or occurs, hold patient's head

down, lower than their hips to help avoid possible aspiration of vomitus.

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. Get medical advice if breathing becomes

difficult.

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

Product Name: 36 Plus

Prepared by: Technical Compliance Consultants (NZ) Ltd

Date of SDS: 1 August 2019

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Tel: 64 9 475 5240 www.techcomp.co.nz

**Ingestion:** Harmful if swallowed. The material can produce chemical burns within the

oral cavity and gastrointestinal tract following ingestion.

**Inhalation:** Fatal if inhaled. There is strong evidence to suggest that this material can

cause, if inhaled once, serious, irreversible damage of organs.

Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-

ordination, and vertigo.

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.

**Skin:** Toxic in contact with skin. Causes severe skin burns. May cause an allergic

skin reaction.

**Eye:** Causes serious 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 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

Sampling Time Comment

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 $\ensuremath{\mathsf{B}}\xspace$  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	
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Hazard Type	Liquid and vapour are highly flammable.
Hazards from combustion products	On combustion, may emit toxic fumes of carbon monoxide (CO). Combustion products include:, carbon dioxide (CO2), formaldehyde, hydrogen chloride, phosgene, nitrogen oxides (NOx), other pyrolysis products typical of burning organic materialContains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions. Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.
Suitable Extinguishing media	Foam. dry chemical powder, BCF (where regulations permit), Carbon dioxide. Water spray or fog - Large fires only.
Precautions for firefighters and special protective clothing	Wear full body protective clothing with breathing apparatus. May be violently or explosively reactive. Severe fire hazard when exposed to heat, flame and/or oxidisers. Vapour may travel a considerable distance to source of ignition. Heating may cause expansion or decomposition leading to violent rupture of containers. Prevent, by any means available, spillage from entering drains or water course.
HAZCHEM CODE	3WE

#### Section 6. Accidental Release Measures

#### **Personal precautions:**

1. Methanol in urine

2. Formic acid in urine

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.

#### **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.
- Keep container tightly closed.
- 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 cut, drill, grind, weld or perform similar operations on or near containers.
- 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 reducing agents, oxidizing agents, strong bases, strong acids, acid chlorides, acid anhydrides and chloroformates.
- Keep out of reach of children.
- Store locked up.
- Store in a cool, well-ventilated place.
- Keep container tightly closed.
- Store in original containers in approved flame-proof area.
- No smoking, naked lights, heat or ignition sources.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- Protect containers against physical damage and check regularly for leaks.

#### **Suitable Containers:**

- Packing as supplied by manufacturer.
- Plastic containers may only be used if approved for flammable liquid.
- Check that containers are clearly labelled and free from leaks.
- For low viscosity materials
  - Drums and jerry cans must be of the non-removable head type. (i)
  - Where a can is to be used as an inner package, the can must have a screwed (ii) enclosure.
- For materials with a viscosity of at least 2680 cSt.

#### **Section 8 Exposure Controls / Personal Protection**

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

Substance	TWA ppm mg/	m <sup>3</sup> ppm	mg/m³
Formaldehyde [50-00-0]		3 hour shift) (12 hour shift) pm	
Methanol [67-56-1] Ethylene dichloride [107-06-2] Triethanolamine [102-71-6]	200 262 5 21 5	2 250	328

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**

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Eyes	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.
Hands	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.
Skin	Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area. [AS/NZS ISO 6529:2006 or national equivalent]
Respiratory	Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type respirators with filters for dusts, mists and fumes, or air purifying canisters or cartridges. A respirator affording higher levels of protection may be substituted. [AS/NZS 1715 or national equivalent]
General	Emergency deluge showers and eyewash fountains, supplied with potable water, should be located near, within sight of, and on the same level with locations where direct exposure is likely.  Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers must be identified with suitable labels.

#### Section 9 **Physical and Chemical Properties**

Appearance	translucent flammable liquid; mixes with water.	
Colour	Reddish-pink	
Odour	Not available	
Odour Threshold	Not available	
рН	Not available	
<b>Boiling Point</b>	28°C	
Melting Point	Not available	
Freezing Point	Not available	
Flash Point	28°C(Pensky-Martens)	
Flammability	Not available	
Upper and Lower	6% - 73%	
<b>Explosive Limits</b>		
Vapour Pressure	Not available	
Vapour Density (Air=1)	>1	
Relative Density	1.09	
(Water=1)		
Water Solubility	Miscible	
Partition Coefficient:	Not available	
Auto-ignition	Not available	
Temperature		
Decomposition	Not available	

Temperature	
Kinematic Viscosity	Not available
<b>Particle Characteristics</b>	Not available
Volatile Component	>90
(%vol)	

# Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.	
Possibility of hazardous	Not available	
reactions		
Conditions to Avoid	Keep away from heat, sparks, open flames or hot surfaces. No	
	smoking. Avoid inhalation of the product.	
Incompatible Materials	Reducing agents, oxidizing agents, strong bases, strong acids, acid chlorides, acid anhydrides and chloroformates.	
Hazardous Decomposition	, ,	
Products	(CO).	
	Combustion products include:, carbon dioxide (CO2),	
	formaldehyde, hydrogen chloride, phosgene, nitrogen oxides	
	(NOx), other pyrolysis products typical of burning organic	
	materialContains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions. 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:**

Acute Effects:	<del></del>	
Swallowed	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.  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.	
Dermal	Toxic in contact with skin.	
Inhalation	Fatal if inhaled. There is strong evidence to suggest that this material can cause, if inhaled once, serious, irreversible damage of organs. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.	
Еуе	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). Ethylene dichloride is capable of causing conjunctival and corneal clouding from repeated exposures.	
Skin	Causes severe skin burns. May cause an allergic skin reaction. Open cuts, abraded or irritated skin should not be exposed to this material	

Entry into the blood-stream 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.

### **Chronic Effects:**

Carcinogenicity	May cause cancer.
Reproductive	Suspected of damaging fertility or the unborn child.
Toxicity	
Germ Cell	Suspected of causing genetic defects.
Mutagenicity	
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Causes damage to organs through prolonged or repeated exposure. 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.
Chronic	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.  Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.  There is ample evidence that this material can be regarded as being able to cause cancer in humans based on experiments and other information. There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general.

# **Individual component information:**

**Acute Toxicity:** 

<b>Chemical Name</b>	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)
Ethylene dichloride	680mg/kg(Rat)	LD50: 3890 mg/kg (rabbit)	3000ppm/7H(monkey) 1.06 mg/L/6H(mouse) 5.1 mg/L/6H (rat)
Triethanolamine	5559.6mg/kg (female)(rat)	>18080 mg/kg (rat)	-

METHANOL	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.
ETHYLENE DICHLORIDE	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. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases.
TRIETHANOLAMINE	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

FORMALDEHYDE & TRIETHANOLAMINE 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.

Persistence and degradability	No data available
Bioaccumulation	No data available
Mobility in Soil	No data available
Other adverse effects	No data available

#### **Individual component information:**

Ingredient	Persistence: Water/Soil	P
formaldehyde	LOW (Half-life = 14 days)	LOW (Half-life = 2.97 days)
methanol	LOW	LOW
ethylene dichloride	HIGH (Half-life = 360 days)	MEDIUM (Half-life = 121.54 days)
triethanolamine	LOW	LOW
Ingredient	В	
Bioaccumulative pote		
formaldehyde	LOW (LogKOW = 0.35)	
	, , ,	
methanol	LOW (BCF = 10)	
ethylene dichloride	LOW (BCF = 6)	
triethanolamine	LOW (BCF = 4)	
obility in soil		
Ingredient	М	
formaldehyde	HIGH (KOC = 1)	
methanol	HIGH (KOC = 1)	

Do not allow to enter waterways.

#### Section 13. Disposal Considerations

LOW (KOC = 10)

#### **Disposal Method:**

triethanolamine

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 - Flammable, Toxic, Carcinogenic, Corrosive and Ecotoxic" and that the label also has the Flammable, 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).

Prepared by: Technical Compliance Consultants (NZ) Ltd Product Name: 36 Plus Tel: 64 9 475 5240 Date of SDS: 1 August 2019 www.techcomp.co.nz

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



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

UN No	3286	
Class - Primary	3	
Packing Group	II	
Sub-Class	6.1, 8	
Proper Shipping Name	FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. (contains	
	formaldehyde and methanol)	
Marine Pollutant	No	
Special Provisions	If the product's individual container is below 1L, 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 (Flammable, Corrosive, Toxic[6.1]) - HSR002564

HSNO Classification: 3.1C, 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
Certified Handler	Yes- Any quantity (6.1B)
Location Certificate	250L (6.1B)
Tracking Trigger Quantities	Yes- Any quantity (6.1B)
Signage Trigger Quantities	100L (9.2A)
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.

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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

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