



## SAFETY DATA SHEET

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

Product:	<b>Stop</b>
Product Use:	Supplemental Embalming Fluid
Restriction of Use in NZ:	Refer to Section 15
<b>New Zealand Supplier:</b>	<b>Thirty SixPlus Embalmers</b>
Address:	18 Norman Spencer Drive Manukau City Auckland 2104
Telephone:	0800 362 256
Fax:	+64 9 262 3705
<b>Emergency No:</b>	<b>0800 764 766 (National Poison Centre)</b>
<b>Australia Supplier:</b>	<b>XXX</b> XXX XXX
Tel:	+61 XXX
<b>Australian Emergency No</b>	<b>13 11 26 (National Poison Centre)</b>
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
3.1B	H225	Highly flammable liquid and vapour.	Flam. Liq. 2

6.1C (oral)	H301	Toxic if swallowed.	Acute Tox. 3
6.1C (inh)	H331	Toxic if inhaled.	Acute Tox. 3
6.1E (dermal)	H313	May be harmful in contact with skin.	Acute Tox. 5
6.5A	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	Resp. Sens. 1
6.6B	H341	Suspected of causing genetic defects.	Muta. 2
6.7B	H351	Suspected of causing cancer.	Carc. 2
6.9B	H373	May cause damage to organs through prolonged or repeated exposure.	STOT RE 2
8.2C	H314	Causes severe skin burns and eye damage.	Skin Corr. 1C
8.3A	H318	Causes serious eye damage.	Eye Corr. 1
9.1A	H400	Very toxic to aquatic life.	Aquatic Acute 1
9.3C	H433	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.
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 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.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.
P281	Use personal protective equipment as required.
P285	In case of inadequate ventilation 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 + 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 to fresh air and keep at rest in a position comfortable for breathing.
P304 + P341	IF INHALED: If breathing is difficult, 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.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P370 + P378	In case of fire: Use foam, dry chemical powder, BCF or Carbon Dioxide for extinction.

Storage Code	Storage Statement
P405	Store locked up.
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.
Ethylene dichloride	> 90	107-06-2
Benzalkonium chloride	5	8001-54-5
Oleic acid	< 5	112-80-1

### 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>IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY. Urgent hospital treatment is likely to be needed. In the meantime, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition.</p> <p>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.</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 SDS.</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. Avoid giving milk or oils. Avoid giving alcohol.</p>
If Inhaled	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:

**Ingestion:** Toxic if swallowed. Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Swallowing ethylene dichloride may cause nausea, vomiting, dizziness, incoherence, blue extremities, and in extreme cases, bleeding in the large bowel and brain, leading to death.

**Inhalation:** Toxic if inhaled. The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung

damage. 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. Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may produce serious damage to the health of the individual.

Acute intoxication by halogenated aliphatic hydrocarbons appears to take place over two stages.

**Skin:** May be harmful in contact with skin. Causes severe skin burns. May cause an allergic skin reaction. The material may accentuate any pre-existing dermatitis condition. Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. 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.

Ethylene dichloride irritates the skin, is toxic to the liver, and causes central nervous system depression. Skin contact causes smarting and first-degree burns on short exposure, and difficult-to-heal sores on repeated exposure [CHRIS].

**Eye:** Causes serious eye damage. Ethylene dichloride is capable of causing conjunctival and corneal clouding from repeated exposures. There is evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Severe inflammation may be expected with pain.

**Chronic:** Suspected of causing genetic defects.  
Suspected of causing cancer.  
Causes damage to organs through prolonged or repeated exposure.

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

As in all cases of suspected poisoning, follow the ABCDEs of emergency medicine (airway, breathing, circulation, disability, exposure), then the ABCDEs of toxicology (antidotes, basics, change absorption, change distribution, change elimination).

For poisons (where specific treatment regime is absent):

#### **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.

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.

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

For intoxication due to Freons/ Halons;

A.Emergency and Supportive Measures

Maintain an open airway and assist ventilation if necessary

Treat coma and arrhythmias if they occur. Avoid (adrenaline) epinephrine or other sympathomimetic amines that may precipitate ventricular arrhythmias. Tachyarrhythmias caused by increased myocardial sensitisation may be treated with propranolol, 1-2 mg IV or esmolol 25-100 microgm/kg/min IV.

Monitor the ECG for 4-6 hours

B.Specific drugs and antidotes:

There is no specific antidote

C.Decontamination

Inhalation; remove victim from exposure and give supplemental oxygen if available.

Ingestion;

(a) Prehospital: Administer activated charcoal, if available. DO NOT induce vomiting because of rapid absorption and the risk of abrupt onset CNS depression.

(b) Hospital:Administer activated charcoal, although the efficacy of charcoal is unknown.

Perform gastric lavage only if the ingestion was very large and recent (less than 30 minutes)

D.Enhanced elimination:

There is no documented efficacy for diuresis, haemodialysis, haemoperfusion, or repeat-dose charcoal.

POISONING and DRUG OVERDOSE, Californian Poison Control System Ed. Kent R Olson; 3rd Edition

Do not administer sympathomimetic drugs unless absolutely necessary as material may increase myocardial irritability.

No specific antidote.

Because rapid absorption may occur through lungs if aspirated and cause systematic effects, the decision of whether to induce vomiting or not should be made by an attending physician. If lavage is performed, suggest endotracheal and/or esophageal control.

Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach.

Treatment based on judgment of the physician in response to reactions of the patient.

## Section 5. Fire Fighting Measures

<b>Hazard Type</b>	Liquid and vapour are highly flammable.
<b>Hazards from combustion products</b>	On combustion, may emit toxic fumes of carbon monoxide (CO). Combustion products include: Combustion products include: carbon dioxide (CO <sub>2</sub> ), hydrogen chloride, phosgene, nitrogen oxides (NO <sub>x</sub> ), ammonia, other pyrolysis products typical of burning organic material. Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.
<b>Suitable Extinguishing media</b>	Foam, dry chemical powder, BCF (where regulations permit), Carbon dioxide.
<b>Precautions for firefighters and special protective clothing</b>	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.
<b>HAZCHEM CODE</b>	<b>2YE</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.

**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.
- Containers, even those that have been emptied, may contain explosive vapours.
- 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 fumes, vapours or 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.
- Use personal protective equipment as required.
- Wear respiratory protection.
- In case of inadequate ventilation wear respiratory protection.

**Precautions for Storage:**

- Store away from incompatible materials listed in Section 10.
- Keep out of reach of children.
- Store locked up.
- Store in a cool, well-ventilated place.
- 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.
- Keep containers securely sealed.
- Protect containers against physical damage and check regularly for leaks.

**Suitable Containers:**

- DO NOT use aluminium or galvanised 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
  - (i) : Drums and jerry cans must be of the non-removable head type.
  - (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure.
- For materials with a viscosity of at least 2680 cSt.

**Storage incompatibility:****Ethylene dichloride**

- reacts violently with strong oxidisers, liquid ammonia, dimethylaminopropylamine, dinitrogen tetraoxide (nitrogen dioxide) nitrogen peroxide, metal powders, aluminium,

nitric acid, amides of lithium, potassium or sodium produces hydrogen chloride and phosgene in contact with steam or very hot surfaces.

- is incompatible with alkalis
- is corrosive to iron and other metals
- attacks some plastics, coatings and rubber
- flow or agitation may generate electrostatic charges due to low conductivity.

#### Haloalkanes:

- are highly reactive: some of the more lightly substituted lower members are highly flammable; the more highly substituted may be used as fire suppressants, not always with the anticipated results.
  - may react with the lighter divalent metals to produce more reactive compounds analogous to Grignard reagents.
  - may produce explosive compounds following prolonged contact with metallic or other azides.
  - may react on contact with potassium or its alloys - although apparently stable on contact with a wide range of halocarbons, reaction products may be shock-sensitive and may explode with great violence on light impact; severity generally increases with the degree of halocarbon substitution and potassium-sodium alloys give extremely sensitive mixtures .
- BREITHERICK L.: Handbook of Reactive Chemical Hazards
- react with metal halides and active metals, eg. sodium (Na), potassium (K), lithium (Li), calcium (Ca), zinc (Zn), powdered aluminium (Al) and aluminium alloys, magnesium (Mg) and magnesium alloys.

## 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>
Ethylene dichloride [107-06-2]	5	21		

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. Safety glasses with side shields. Contact lenses may pose a special hazard; soft contact lenses may absorb
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	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 The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. Contaminated leather items, such as shoes, belts and watchbands should be removed and destroyed.
<b>Skin</b>	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].
<b>Respiratory</b>	Type A Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent). 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]
<b>General</b>	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

<b>Appearance</b>	Flammable liquid; moderately soluble in water.
<b>Colour</b>	Yellow
<b>Odour</b>	Mildly pungent odour
<b>Odour Threshold</b>	Not available
<b>pH</b>	Not available
<b>Boiling Point</b>	83°C
<b>Melting Point</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	16°C(PMCC)
<b>Flammability</b>	Highly Flammable
<b>Upper and Lower Explosive Limits</b>	6.2% - 156%
<b>Vapour Pressure(kPa)</b>	Not available
<b>Vapour Density (Air=1)</b>	~1
<b>Relative Density (Water=1)</b>	1.23
<b>Water Solubility</b>	Partly 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</b>	>90



(%vol)

## Section 10. Stability and Reactivity

<b>Stability of Substance</b>	This product is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	See Section 7
<b>Conditions to Avoid</b>	Keep away from heat, sparks, open flames or hot surfaces. No smoking.
<b>Incompatible Materials</b>	See Section 7
<b>Hazardous Decomposition Products</b>	On combustion, may emit toxic fumes of carbon monoxide (CO). Combustion products include: Combustion products include: carbon dioxide (CO <sub>2</sub> ), hydrogen chloride, phosgene, nitrogen oxides (NO <sub>x</sub> ), ammonia, other pyrolysis products typical of burning organic material. 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>	Toxic if swallowed. Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Swallowing ethylene dichloride may cause nausea, vomiting, dizziness, incoherence, blue extremities, and in extreme cases, bleeding in the large bowel and brain, leading to death.
<b>Dermal</b>	May be harmful if in contact with 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. Ethylene dichloride irritates the skin, is toxic to the liver, and causes central nervous system depression. Skin contact causes smarting and first-degree burns on short exposure, and difficult-to-heal sores on repeated exposure [CHRIS].
<b>Inhalation</b>	Toxic if inhaled. The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. 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. Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may produce serious damage to the health of the individual. Acute intoxication by halogenated aliphatic hydrocarbons appears to take place over two stages.
<b>Eye</b>	The material can produce chemical burns to the eye following direct contact. Ethylene dichloride is capable of causing conjunctival and corneal clouding from repeated exposures. There is evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Severe inflammation may be expected with pain.
<b>Skin</b>	Causes severe skin burns. May cause an allergic skin reaction. The material may accentuate any pre-existing dermatitis condition. Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.

**Chronic Effects:**

<b>Carcinogenicity</b>	Suspected of causing cancer.
<b>Reproductive Toxicity</b>	Not applicable.
<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>	<p>Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems.</p> <p>There is ample evidence that this material can be regarded as being able to cause cancer in humans based on experiments and other information. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.</p> <p>There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. There is limited evidence that, skin contact with this product is more likely to cause a sensitisation reaction in some persons compared to the general population.</p> <p>Animal testing showed that if given by feeding tube, cancers of the forestomach, blood vessels, liver and breast, together with tumours of the uterus, lung and fibrous tissue under the skin, were increased.</p>

**Individual component information:****Acute Toxicity:**

<b>Chemical Name</b>	<b>Oral – LD50</b>	<b>Dermal – LD50</b>	<b>Inhalation – LC50</b>
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)
benzalkonium chloride	240mg/kg (rat)	1560 mg/kg (rabbit)	-
oleic acid	25000mg/kg	-	-

<b>OLEIC ACID</b>	<p>The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>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.</p>
<b>Stop &amp; ETHYLENE DICHLORIDE &amp; BENZALKONIUM CHLORIDE</b>	<p>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.</p>

**Section 12. Ecotoxicological Information****New Zealand:****HSNO Classes:**

9.1A = Very toxic to aquatic life.

9.3C = Harmful to terrestrial vertebrates.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high-water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters. Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

For Haloalkanes: Atmospheric Fate: Fully, or partially, fluorinated haloalkanes released to the air can restrict heat loss from the Earth's atmosphere by absorbing infrared emissions from the surface. The major fate of haloalkanes in the atmosphere is via breakdown by hydroxyl radicals.

<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
ethylene dichloride	HIGH (Half-life = 360 days)	MEDIUM (Half-life = 121.54 days)
oleic acid	LOW	LOW

#### Bioaccumulative potential

Ingredient	B
ethylene dichloride	LOW (BCF = 6)
oleic acid	LOW (LogKOW = -7.7294)

#### Mobility in soil

Ingredient	M
ethylene dichloride	LOW (KOC = 43.79)
oleic acid	HIGH (KOC = 11670)

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 – 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).**

**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>	1184
<b>Class - Primary</b>	3
<b>Packing Group</b>	II
<b>Sub-Class</b>	6.1
<b>Proper Shipping Name</b>	Ethylene dichloride
<b>Marine Pollutant</b>	Yes
<b>Special Provisions</b>	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: 3.1B, 6.1C(Oral, Inh), 6.1E(dermal), 6.5A, 6.5B, 6.6B, 6.7B, 6.9B, 8.2C, 8.3A, 9.1A, 9.3C

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	100L(>5L), 250L(<5L), 50L open
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	250L (3.1B)
Emergency Response Plan	100L (6.1C)
Secondary Containment	100L (6.1C)
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.

Product Name: Stop  
Date of SDS: 1 August 2019

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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

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

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