



**Davco Construction Materials Pty Limited**

ABN 28 093 876 558

67 Elizabeth Street Wetherill Park NSW Australia 2164

Telephone: 61 2 9616 3000 Facsimile: 61 2 9725 5551

## MATERIAL SAFETY DATA SHEET

### 1. Identification of Material and Supplier

<b>Product Name</b>	<b>Epoxy Hardener Grout Part B</b>		
<b>Other Names</b>	Liquid 19		
<b>Recommended Use</b>	Curing agent for waterborne epoxy grout resin system Apply with grout float or squeegee. Mix one part resin with one part hardener by volume.		
<b>Supplier Name</b>	Davco Construction Materials Pty Ltd		
<b>Address</b>	67 Elizabeth St, Wetherill Park, NSW, Australia 2164		
<b>Web Address</b>	www.davco.com.au		
<b>Telephone</b>	61 2 9616 3000	<b>Facsimile</b>	61 2 9725 5551
<b>Technical Support</b>	1800 653 347	<b>Emergency: Spill, First Aid etc</b>	1800 807 001

### 2. Hazards Identification

<b>Hazard Classification</b>	This product is hazardous according to the criteria of the NOHSC. All components are listed on the AICS. Not classed as a DG substance according to the ADG Code. Not a scheduled poison according to the SUSDP. Product is a C2 Combustible Liquid according to AS 1940.
<b>Risk Phrases</b>	X 1 R 36/38 Irritating to eyes and skin, R 43 May cause sensitisation by skin contact, R 52/53 Harmful to aquatic organisms and may have long term adverse effects in the aquatic environment.
<b>Safety Phrases</b>	S 1/2 Keep locked up and out of reach of children, S 36/27/39 Wear suitable protective clothing, gloves and eye/face protection.

### 3. Composition/Information on Ingredients

Chemical Identity	Proportion	CAS No
Triethylenetetramine	< 10 %	112-24-3
Ingredients determined to be non-hazardous or below cut-off values	to 100 %	n.a.

## 4. First Aid Measures

### 4.1 Symptoms of Exposure by Route

#### SWALLOWED

Trivial amounts ingested incidental to normal handling will have little or no effect. Larger amounts ingested may cause nausea, vomiting, stomach discomfort and diarrhoea. May cause superficial burns to mouth, lips and throat.

#### EYE

Will cause moderate to severe eye irritation and must be promptly removed by flushing. May cause serious eye damage if left in contact.

#### SKIN

May cause moderate skin irritation. Prolonged or repeated skin exposure may lead to sensitisation with contact allergic reaction on later exposures.

#### INHALED

Not expected to have any adverse effects.

### 4.2 First Aid Instructions

#### SWALLOWED

Do not induce vomiting. Rinse mouth clear with water and give two 250 ml glasses of water to drink. If patient involuntarily vomits encourage to lean forward to avoid aspirating. If symptoms persist seek prompt medical help.

#### EYE

Immediately: Hold eye open and flush with clean water for at least 15 minutes. While flushing, gently pull upper and lower eyelids away from eyes and ensure carefully flushed. If symptoms persist seek prompt medical attention.

#### SKIN

Remove contaminated clothing and footwear (while under safety shower if appropriate). Flush affected area with water for 3-5 minutes followed by washing gently with soap and water for a further 5 minutes. Rinse well and pat dry. If symptoms persist seek prompt medical assistance.

#### INHALED

Remove patient (while wearing SCBA if concentrations are high) to fresh air. Allow to rest. Rinse mouth and nose with water. Provide artificial respiration if breathing stops. Seek prompt medical attention unless recovery is virtually immediate.

#### FIRST AID FACILITIES

Provide normal industrial first aid facilities including eye-wash stations and safety showers as appropriate.

### Notes to Physician (for symptoms of over-exposure to this product see above)

#### Possible symptoms of Chronic Health Effects

Prolonged or repeated skin exposure may lead to sensitisation with contact allergic reaction on later exposures.

#### Possible aggravated pre-existing conditions

None reported.

#### Suggested treatment for acute symptoms, known antidotes

Provide supportive care and treatment based on the patient's reaction to the exposure. For further information contact the :

**POISONS INFORMATION CENTRE 13 11 26 in all States (New Zealand Dial 0800 764 766)**

## 5. Fire Fighting Measures

### 5.1 Flammability and Explosion Hazards

Containers may rupture under steam pressure if directly involved in fire.

### 5.2 Hazardous Combustion Products

CO<sub>x</sub> , NO<sub>x</sub> and trace amounts of other toxic vapours are emitted when thermally decomposing.

### 5.3 Suitable Extinguishing Media

Select to suit surrounding fires or use water as fog or fine spray.

**Hazchem Code:** Not allocated

### 5.4 Precautions for Fire Fighters and Special Equipment

Wear SCBA and full turn out clothing. Avoid bodily contact with substance or run-off.

## 6. Accidental Release Measures

### 6.1 Emergency Procedures – Spills and Leaks (See Section 13 for disposal considerations)

Prevent material entering drains or waterways. Wear normal protective clothing (including rubber boots and respirator if involved in a major spill). Spread sand, soil or other inert absorbent over the pool. When saturated collect into plastic pails or drums. Fit lids, label and place containers in a safe area to await disposal. Alternatively added hardener, allow to cure and dispose of as industrial waste when completely cured.

## 7. Handling and Storage

### 7.1 Handling Advice

Wear suitable protective clothing. Keep away from oxidising substances and nitro-cellulose lacquer.

### 7.2 Storage Advice

Store in a cool, dry and well-ventilated area. Keep containers closed when not in use.

## 8. Exposure Controls/ Personal Protection

### 8.1 Exposure Standards

No exposure standards have been set by the NOHSC for this product or its ingredients. Sweden has set a standard OEL:

<i>Substance</i>	<i>TWA</i>	<i>STEL</i>
Triethylenetetramine	6 mg/m <sup>3</sup>	12 mg/m <sup>3</sup>

### 8.2 Engineering Control Methods

Used in the open air natural ventilation is usually adequate. If used indoors supplement natural ventilation as required to maintain comfort levels.

### 8.3 Personal Protective Equipment Respiratory Protection

Not usually required. If high vapour concentrations build up use respirator to AS 1715 & 1716. Use SCBA in confined spaces.

#### Eye Protection

Use safety glasses with side shields or goggles to AS 1337.

#### Gloves

When mixing and applying wear rubber, PVA or neoprene gloves to AS 2161.

#### Clothing

Wear cotton or Tyvec coveralls fastened at the neck and wrist. Supplement with a rubber or PVA apron if required.

## 9. Physical and Chemical Properties

<b>Appearance:</b>	Light yellow/cream, homogeneous, medium viscosity liquid.	<b>Odour:</b>	mild odour
<b>Freezing/ Melting Point:</b>	n.d.	<b>Boiling Point:</b>	> 150 %
<b>Density:</b>	0.97 - 1.00	<b>Vapour Pressure:</b>	n.d.
<b>Solubility in water :</b>	Insoluble (miscible)	<b>Volatiles:</b>	n.d.
<b>Flash Point:</b>	> 100°C	<b>Flammability Limits:</b>	n.d.
<b>Auto Ignition Point:</b>	n.a.	<b>AS 1940 Classification:</b>	C 2 Combustible Liquid
<b>Other Properties</b>	Irritant and possible sensitiser.		

## 10. Stability and Reactivity

In normal conditions of use and handling the product is stable.

## 11. Toxicological Information

No product relevant data found.

## 12. Ecological Considerations

Not considered biodegradable. May have an adverse effect on aquatic organisms.

## 13. Disposal Considerations

Disposal must be in accordance with local regulations for hazardous wastes. Alternatively add hardener to resin, allow to cure and dispose of as non-hazardous industrial waste when completely cured.

## 14. Transport Information

Requirements under the ADG Code, the IMDG Code or the IATA DG Regulations do not apply to this product.

## 15. Regulatory Information

The special labelling requirements under the *Code of Practice for the labelling of Workplace Substances (NOHSC:2012[1994])*, the *ADG Code* or the *SUSDP* do not apply to this product.

## 16. Other Information

**Date of Issue:** 7/08/2006 New MSDS (Version 1.0) to comply with National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition NOHSC: 2011 (2003).

**Data Sources used:** in the preparation of this MSDS include: "Chempendium" and "MSDS plus Cheminfo" published in CD format by CCOHS Canada 2005 - 4."TOMES" a CD database published by Micromedex, USA, "Hazardous Properties of Industrial Materials" Van Nostrand Rheinhold NY, USA . "List of Designated Hazardous Substances" NOHSC 10005:1999, "National Exposure Standards" NOHSC 1003:1995 . **Abbreviations used:** n.d = not determined, n.a = not applicable, n.all =not allocated, SUSDP = Standard for the Uniform Scheduling of Drugs and Poisons, ADG = Australian Dangerous Goods Code, IATA = International Air Transport Association, (Dangerous Goods Regulations), IMDG = International Maritime Dangerous Goods (Code)

### Disclaimer

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## MATERIAL SAFETY DATA SHEET

### 1. Identification of Material and Supplier

<b>Product Name</b>	<b>Epoxy Resin Grout Part A</b>		
<b>Other Names</b>	n.all.		
<b>Recommended Use</b>	Water-based epoxy grout resin. Apply with grout float or squeegee. Mix one part resin with one part hardener by volume.		
<b>Supplier Name</b>	<b>Davco Construction Materials Pty Ltd</b>		
<b>Address</b>	<b>67 Elizabeth St, Wetherill Park, NSW, Australia 2164</b>		
<b>Web Address</b>	<b>www.davco.com.au</b>		
<b>Telephone</b>	<b>61 2 9616 3000</b>	<b>Facsimile</b>	<b>61 2 9725 5551</b>
<b>Technical Support</b>	<b>1800 653 347</b>	<b>Emergency: Spill, First Aid etc</b>	<b>1800 807 001</b>

### 2. Hazards Identification

<b>Hazard Classification</b>	This product is hazardous according to the criteria of the NOHSC. All components are listed on the AICS. Not a DG substance according to the ADG Code (see also Section 14). Is a Schedule 5 Poison according to the SUSDP. Is not a combustible or flammable liquid according to AS 1940.
<b>Risk Phrases</b>	Xi R 36/38 Irritating to eye and skin, R 43 May cause sensitisation by skin contact
<b>Safety Phrases</b>	S 2 Keep out of reach of children, S 28 After contact with skin, wash immediately with plenty of soap-suds, S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

### 3. Composition/Information on Ingredients

Chemical Identity	Proportion	CAS No
Bisphenol A- Epichlorohydrin resin	30 - 60 %	25068-38-6
Ingredients, including water which have been determined to be non-hazardous or below cut off values	to 100 %	n.a.

## 4. First Aid Measures

### 4.1 Symptoms of Exposure by Route

#### SWALLOWED

Minor amounts ingested incidental to normal handling will have little or no effect. Larger amounts deliberately ingested will cause nausea, vomiting and stomach discomfort.

#### EYE

Will cause moderate eye irritation, and reddening (inflammation) and must be promptly removed by flushing. Prolonged or repeated exposures may cause conjunctivitis.

#### SKIN

May cause discomfort and adhere to the skin. May cause sensitisation with an allergic dermatitis response on further exposures. Should be promptly removed by washing with soap and water. Those previously sensitised may experience an allergic response to low dose rates.

#### INHALED

Inhalation is more likely at higher than normal temperatures, typically such vapours may be anticipated during curing. Vapour may cause slight to moderate irritation and discomfort to upper respiratory tract. It is possible that prolonged or repeated exposures could cause sensitisation or allergic reactions in those previously sensitised.

### 4.2 First Aid Instructions

#### SWALLOWED

Do not induce vomiting. Rinse mouth clear with water and give two 300 ml glasses of water to drink. If patient involuntarily vomits encourage to lean forward to avoid aspirating. If symptoms persist seek prompt medical help.

#### EYE

Immediately: Hold eye open and flush with clean water for at least 15 minutes. While flushing, gently pull upper and lower eyelids away from eyes and ensure carefully flushed. If symptoms persist seek prompt medical attention.

#### SKIN

Remove contaminated clothing and footwear (while under safety shower if appropriate). Flush affected area with water for 3-5 minutes followed by washing gently with soap and water for a further 5 minutes. Rinse well and pat dry. If symptoms persist seek prompt medical attention.

#### INHALED

Remove patient (while wearing SCBA if concentrations are high) to fresh air. Allow to rest. Rinse mouth and nose with water. Provide artificial respiration if breathing stops. Seek urgent medical attention unless recovery is virtually immediate.

#### FIRST AID FACILITIES

Provide normal industrial first aid facilities including eye-wash stations and safety showers as appropriate.

#### Notes to Physician (for symptoms of over-exposure to this product see above)

##### Possible symptoms of Chronic Health Effects

Prolonged or repeated skin exposure may cause drying and cracking of the skin. Acute skin exposure may cause sensitisation with an allergic dermatitic response. Prolonged or repeated inhalation of vapours may lead to sensitisation, Those persons previously sensitised may experience allergic responses to low level exposures.

##### Possible aggravated pre-existing conditions

Skin contact will aggravate pre-existing dermatitis conditions. Vapour inhalation at higher than normal temperatures during curing may aggravate pre-existing conditions such as asthma, bronchitis and emphysema.

##### Suggested treatment for acute symptoms, known antidotes

Provide supportive care and treatment based on the patient's reaction to the exposure. For further information contact the :

**POISONS INFORMATION CENTRE 13 11 26 in all States (New Zealand Dial 0800 764 766)**

## 5. Fire Fighting Measures

### 5.1 Flammability and Explosion Hazards

Containers may rupture in fire conditions due to steam pressure. Product is non-flammable as sold but may burn when water content has boiled off.

### 5.2 Hazardous Combustion Products

CO<sub>x</sub> and aldehydes, when mixed with Part B, combustion by-products will include amines and NO<sub>x</sub>

### 5.3 Suitable Extinguishing Media

Use water as fine spray or fog.

**Hazchem Code:** Not allocated.

### 5.4 Precautions for Fire Fighters and Special Equipment

Wear SCBA and full turn out clothing. Avoid bodily contact with substance or run-off. Contain run-off waters for later collection and controlled disposal.

## 6. Accidental Release Measures

### 6.1 Emergency Procedures – Spills and Leaks (See Section 13 for disposal considerations)

Prevent material entering drains or waterways. Send unnecessary personnel out of area. Wear full protective clothing including rubber boots and respirator. Spread sand, soil or other inert absorbent over the pool. When saturated collect into metal or plastic drums or pails. Fit lids, label and place containers in a safe area to await disposal.

## 7. Handling and Storage

### 7.1 Handling Advice

Wear suitable protective clothing. Avoid unnecessary bodily contact with product. Avoid contact with incompatibles (see page 4 and below)

### 7.2 Storage Advice

Store in a cool, dry and well-ventilated area. Keep containers closed when not in use. Keep away from amines, mercaptans, strong acids and strong oxidisers.

## 8. Exposure Controls/ Personal Protection

### 8.1 Exposure Standards

No exposure standards have been set by the NOHSC for this product or its ingredients in the proportions present in the product.

*Substance*

*TWA*

*STEL*

### 8.2 Engineering Control Methods

If used outdoors natural ventilation is normally adequate. If used in enclosed spaces with poor ventilation provide mechanical ventilation to comfort levels.

### 8.3 Personal Protective Equipment Respiratory Protection

Not usually required. If vapour concentration is uncomfortably high (typical during curing) use respirator fitted with an organic vapour filter to AS 1715 & 1716. Use SCBA in confined spaces.

#### Eye Protection

When mixing and apply use goggles or chemical safety glasses to AS 1337. Do not wear contact lenses while working with this product.

#### Gloves

When mixing and applying wear rubber, PVA or neoprene gloves to AS 2161.

#### Clothing

Wear cotton or Tyvec coveralls fastened at the neck and wrist. Supplement with a rubber or PVA apron if required.

## 9. Physical and Chemical Properties

<b>Appearance:</b>	White, homogeneous, thixotropic liquid	<b>Odour:</b>	mild ammonia odour
<b>Freezing/ Melting Point:</b>	n.d.	<b>Boiling Point:</b>	Initial 100 °C
<b>Density:</b>	1.00 to 1.10	<b>Vapour Pressure:</b>	n.d.
<b>Solubility in water :</b>	insoluble, emulsifies, immiscible	<b>Volatiles:</b>	n.d.
<b>Flash Point:</b>	150°C	<b>Flammability Limits:</b>	n.d.
<b>Auto Ignition Point:</b>	n.d.	<b>AS 1940 Classification:</b>	n.a.
<b>Other Properties</b>	Incompatible with amines, mercaptans, strong acids and strong oxidisers.		

## 10. Stability and Reactivity

Under all normal circumstances of use and handling the product is completely stable. Note that during curing there is a small exothermic reaction which increases the vapours emitted.

## 11. Toxicological Information

No relevant to product data found.

## 12. Ecological Considerations

May have an adverse effect of aquatic organisms if large amount released to water. Slowly biodegrades.

## 13. Disposal Considerations

Disposal must be in accordance with local regulations for hazardous chemical wastes.

## 14. Transport Information

Requirements under the ADG Code or the IATA DG Regulations do not apply to this product. Note that ISO have classified Bisphenol A-epichlorohydrin as a Marine Pollutant with the UN Number 3082, Shipping Name: Environmentally Hazardous Substance, Liquid N.O.S. (Contains Bisphenol A) DG: Class 9 PG III. if transporting under the requirements of the IMDG Code

## 15. Regulatory Information

Label in accordance with the "National Code of Practice for the Labelling of Workplace Substance" [NOHSC: 2012 (1994)] with the Risk and Safety Phrases given on page 1 of this MSDS and the word "Hazardous". Labelling under the SUSDP or the ADG Code is not required unless transporting by sea (see above).

## 16. Other Information

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