



(Australia) Pty Ltd

# MATERIAL SAFETY DATA SHEET

## 1. Identification of Material and Supplier

<b>Product Name</b>	<b>Helifix CrackBond 2</b>		
<b>Other Names</b>			
<b>Recommended Use</b>	An paste form epoxy resin polymer system in a cartridge for use with Helifix construction reinforcing systems		
<b>Supplier Name</b>	<b>Helifix (Australia) Pty Ltd</b>		
<b>Address</b>	<b>Unit 24, 34-36 Ralph Street, Alexandria NSW, Australia 2015</b>		
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<b>Emergency Telephone</b>	<b>61 2 9669 1701</b>	<b>Technical Support</b>	<b>61 2 9669 1701</b>

## 2. Hazards Identification

<b>Hazard Classification</b>	This product is Hazardous according to the criteria of the ASCC. Product is classed as a Dangerous Goods substance: UN 3082 Class 9 PG III Environmentally Hazardous Substance, Liquid N.O.S. (Contains Epoxy Resin). Product is not a flammable or combustible substance according to AS 1940. All ingredients are listed on the AICS.
<b>Risk Phrases</b>	R 20/22 Harmful by inhalation and if swallowed, R 34 Causes burns, R 36/37/38 Irritating to eyes, respiratory system and skin, R 43 May cause sensitisation by skin contact, R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<b>Safety Phrases</b>	S 24/25 Avoid contact with skin and eyes, S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice, S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection, S 61 Avoid release to the environment. Refer to special instructions or this safety data sheet.

## 3. Composition/Information on Ingredients

<b>Chemical Identity</b>	<b>Proportion</b>	<b>CAS No</b>
<i>Reaction Product</i> Bisphenol A-(Epichlorhydrin)	10 - 30 %	25068-38-6
Benzyl Alcohol	1 - 10 %	100-51-6
<i>Reaction Product</i> of Phenol-formaldehyde Novolac & Epichlorhydrin	1 - 10 %	26064-14-4
1, 6 - Hexane Diglycidylether	1 - 10 %	16096-31-4
4-Tert-Butylphenol	1 - 10 %	30940-67-1
M-Phenylenebis (Methylamine)	1 - 10 %	1477-55-0

## 4. First Aid Measures

### 4.1 Symptoms of Exposure by Route

#### SWALLOWED

May cause redness and soreness of the mouth and throat. Large amounts wilfully ingested will cause serious harm.

#### EYE

Will cause severe pain and irritation. Must be promptly removed by flushing immediately with water to avoid serious, permanent, damage to the eye.

#### SKIN

May cause burns, irritation and pain at site of contact.

#### INHALED

May cause shortness of breath with a burning sensation in the throat.

### 4.2 First Aid Instructions

#### SWALLOWED

Do not induce vomiting. Rinse mouth clear with water and give two glasses of water to drink. If symptoms persist seek prompt medical help. Give one glass of water ten minutes later and repeat at ten minute intervals until medical assistance arrives.

#### EYE

Immediately: Hold eyes open and flush with clean water for at least 15 minutes. While flushing, gently pull upper and lower eyelids away from eyes and carefully flush. If burns may be present or if symptoms persist seek urgent medical attention.

#### SKIN

Remove contaminated clothing and footwear (**See also note below**) (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 10 minutes. Rinse well and pat dry. If symptoms persist seek prompt medical advice. Note : **DO NOT forcibly remove clothing** that is stuck to the skin with resin . Leave in-situ until medical personnel arrive and take charge.

#### 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

Skin contact with product may cause sensitisation. Poisonous substances are present at 1 - 10 % - wilful ingestion of significant amounts may cause toxic effects.

#### Possible aggravated pre-existing conditions

Persons previously sensitised to this or other epoxy resin products should exercise particular care to avoid any skin contact with the product.

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

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

**POISONS INFORMATION CENTRE 13 11 26 in all States**

## 5. Fire Fighting Measures

### 5.1 Flammability and Explosion Hazards

Product is in a paste form and is difficult to ignite. Flash Point is > 100°C

### 5.2 Hazardous Combustion Products

If involved in fire will emit toxic fumes.

### 5.3 Suitable Extinguishing Media

Hazchem 2 X: Water as fog or very fine spray, foam or dry chemicals

**Hazchem Code:**

### 5.4 Precautions for Fire Fighters and Special Equipment

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

## 6. Accidental Release Measures

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

Prevent material entering drains or waterways. Wear full protective clothing. Scrape up spillage and collect into clean, dry containers. Fit lids, label and place in a safe area to await disposal. Thoroughly ventilate area before allowing re-entry.

## 7. Handling and Storage

### 7.1 Handling Advice

Wear suitable protective clothing, gloves and eye/face protection. Avoid product contacting strong oxidisers or strong acids.

### 7.2 Storage Advice

Store in accordance with local regulations for Environmentally Hazardous Substances (Contact Local Authority for details) Keep in a cool, well-ventilated room away from oxidisers or strong acids.

## 8. Exposure Controls/ Personal Protection

### 8.1 Exposure Standards

The ASCC has not established an exposure standard for this product. The standard for one of the ingredients has been set:

<i>Substance</i>		<i>TWA</i>	<i>STEL</i>
M-Phenylenebis (Methylamine)	Skin)	0.1 mg/m <sup>3</sup> Peak Limitation	–

### 8.2 Engineering Control Methods

Provide natural ventilation supplemented as necessary if testing shows contaminated air in the workplace exceeds the exposure standard set.

### 8.3 Personal Protective Equipment

#### Respiratory Protection

Not usually required. If exposure standards may be exceeded use respirator to AS 1715 & 1716 fitted with an organic vapour. Use SCBA in confined spaces.

#### Eye Protection

Use safety glasses with side shields or goggles to AS 1337. Use full face shield if splashes to the face are considered possible.

#### Gloves

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

#### Clothing

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

## 9. Physical and Chemical Properties

<b>Appearance:</b>	Viscous paste in a cartridge	<b>Odour:</b>	characteristic
<b>Freezing/ Melting Point:</b>	n.d	<b>Boiling Point:</b>	n.d
<b>Density:</b>	> 1	<b>Vapour Pressure:</b>	n.d.
<b>Solubility in water :</b>	very slight	<b>Volatiles: Percent</b>	n.d.
<b>Flash Point:</b>	> 100°C	<b>Flammability Limits:</b>	n.d.
<b>Auto Ignition Point:</b>	n.d.		
<b>Other Properties</b>	Incompatible with strong oxidisers or strong acids. Avoid exposure to heat.		

## 10. Stability and Reactivity

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

## 11. Toxicological Information

Benzyl Alcohol: LD 50 oral rat 1230 mg/kg. Bisphenol Reaction Product LD50 oral rat 11400 mg/kg, LD 50 Skin Rabbit > 20 mg/kg

## 12. Ecological Consideration

Product is toxic to aquatic organisms. May have long-term adverse effects if released in the aquatic environment.

## 13. Disposal Considerations

Must be disposed of in accordance with local regulations for hazardous wastes. Advise local authority of potential for marine pollution.

## 14. Transport Information

Transport as UN 3082 Class 9 PG III Environmentally Hazardous Substance N.O.S. (Contains Epoxy Resins), in accordance with the ADG Code, the IMDG Code or the IATA DG Regulations as appropriate to the mode of transport.

EPG for road or rail and air transport : Guide 47 SAA/SNZ HB 76: 2005. Emergency Guide under IMDG: EMS F-A, S-F

## 15. Regulatory Information

The labelling requirements under the *Code of Practice for the labelling of Workplace Substances (ASCC:2012[1994])* are applicable to this product, and the word HAZARDOUS must be prominently displayed in red on a white background with letters twice the height of the general text, the safety and risk phrases shown on page 1 should be repeated on the packages. Label in accordance with the ADG Code, the IMDG Code and IATA DG Regulations with the Class 9 diamond, UN 3082 and the Shipping Name Environmentally Hazardous Substance N.O.S. (Contains Epoxy Resins) For IMDG add the word in Bold Black letters: **MARINE POLLUTANT**

## 16. Other Information

**Date of Issue:** 3/12/2007 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 2003 - 4."TOMES" a CD database published by Micromedex, USA, "Hazardous Properties of Industrial Materials" Van Nostrand Reinhold 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)

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