

MATERIAL SAFETY DATA SHEET



1. Identification of Material and Supplier

Product Name**Fosroc Conbextra EP120****Other Names**Hardener: Toxic Liquid, Organic, N.O.S. (Contains 4,4'-Diamino Diphenyl Methane)
Resin Environmentally Hazardous Substance, Liquid, N.O.S. (Contains Bisphenol A Resins)**Recommended Use**

An epoxy resin grout system.

Supplier Name**Parchem Construction Products Pty Ltd** ABN 80 069 961 968**Address****7 Lucca Road, WYONG, NSW 2259****Web Address****www.parchem.com.au****Telephone****02 4350 5000****Facsimile****02 4351 2024****Emergency Telephone****1800 807 001****Technical Support****1800 812 864**

2. Hazards Identification

Hazard Classification

Both Parts: **Classified as hazardous according to the criteria of the NOHSC. All components are listed on the AICS. Hardener:** Dangerous Goods UN 2810 Class 6 .1 PG III , **Base:** UN 3082 Class 9 PG III according to the criteria of the ADG Code. **Base:** Schedule 5 Poison , **Hardener:** Schedule 7 poison , according to the Standard for the Uniform Scheduling of Drugs and Poisons. **Hardener:** Toxic, corrosive, strongly alkaline. **Base:** Environmentally hazardous.

Risk Phrases

Hardener: R 39/ 23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed R 34 Causes burns, R 61 May cause harm to unborn child, R 62 Possible risk of impaired fertility. Both Parts: R 43 May cause skin sensitisation, R 50/53 Very Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment. Filler only: R 49 May cause cancer by inhalation

Safety Phrases

Both Parts: S 1/2 Keep locked up, keep out of reach of children, 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 45 In case of accident or if you feel unwell seek medical advice immediately and show this container or label, S 61 Avoid release to the environment refer to special instructions/ safety data sheets. Filler only: S 22 Do not breathe dusts.

3. Composition/Information on Ingredients

Chemical Identity	Proportion	CAS No
Base resin:		
Bisphenol A epoxy resin	> 60 %	25068-38-6
Bisphenol F epoxy resin	10 - 30 %	55492-52-9
C 12 - C 14 Glycidyl Ether	< 10 %	68609-97-2
Hardener		
4,4-Diaminodiphenylmethane	10 - 30 %	101-77-9
Isophoronediamine	10 - 30 %	2855-13-2
Dibutyl Phthalate	10 - 30 %	84-74-2
Filler		
Crystalline Silica as quartz	30 - 60 %	14808-60-7
Portland Cement	10 - 30 %	65997-15-1
Calcium Carbonate	10 - 30 %	1317-53-3
Ingredients in all parts 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

Base: Large amounts ingested will cause nausea and may lead to vomiting. Hardener may cause burns to mouth and upper digestive tract and, in larger amounts may have toxic effects.

EYE

Hardener: Can cause severe burns and irreversible damage. Base: May cause moderate eye irritation. Filler may cause eye irritation and possible superficial burns unless promptly removed.

SKIN

Hardener: Can cause burns, may be absorbed through the skin with toxic effects. Base: May cause moderate skin irritation.

Both Parts: Prolonged or repeated skin exposure may lead to sensitisation and dermatitis. Filler may cause drying and cracking of the skin after prolonged exposure.

INHALED

Base and Hardener: Irritating, but not a likely hazard at room temperature. If in an area where vapours from the hardener become concentrated sore throat, headaches, coughing and difficult breathing may result. Inhaling fine dusts from the filler over many years may lead to severe lung disorders including cancer.

4.2 First Aid Instructions

SWALLOWED

Do not induce vomiting. Rinse mouth clear with water and give two glasses to drink. If symptoms persist or burns are present seek prompt medical help.

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 symptoms persist or burns are present seek urgent 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 or burns are present seek prompt medical assistance.

INHALED

Remove patient (while wearing SCBA if concentrations are high) to fresh air. Allow to rest. If conscious, 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

May act as sensitiser producing asthma-like (inhalation) or allergic skin reaction symptoms in sensitised individuals. Those sensitised may react to concentration levels that do not affect other, non-sensitised, people. Prolonged or repeated skin contact with all parts may cause dermatitis. 4,4'-diaminodiphenylmethane is a Category 2 "probable" human carcinogen. The substance is present in the Hardener component at 10 - 30 %. Given the volume of hardener used as a proportion of the product the risk is regarded as small.

Possible aggravated pre-existing conditions

Persons suffering from asthma or other pulmonary disorders must avoid inhaling fumes in enclosed areas with poor ventilation or fine dusts from filler.

Suggested treatment for acute symptoms, known antidotes

Provide supportive care and treatment based on the Physician's judgement of 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

May burn but will not ignite readily. Heat produces toxic vapours. Heat may cause violent rupture of containers.

5.2 Hazardous Combustion Products

Base: Hydrocarbons, aldehydes, CO or CO₂ produced when burnt. Hardener: Emits nitrogen oxides, ammonia, volatile amines during thermal decomposition.

5.3 Suitable Extinguishing Media

Hardener: Foam, CO₂, dry powder. Base: Water as fog or fine spray, foam, dry chemicals or carbon dioxide.

Hazchem Code: Base 2X; Hardener 3 X

5.4 Precautions for Fire Fighters and Special Equipment

Wear SCBA and full turn-out dress. Avoid contact with product or run-off. Contain run-off for later collection and controlled disposal.

6. Accidental Release Measures

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

Absorb in sand, or mix with other component and allow to cure, scrape up and place in sealable metal containers. Fillers only: sweep up without creating dust clouds and collect into drums or pails. Fit lids and place in a safe area to await recovery or disposal.

7. Handling and Storage

7.1 Handling Advice

Avoid skin or eye contact. Avoid breathing fumes in confined spaces. Avoid breathing dusts when mixing in the filler. Wipe up small spills immediately. Ensure adequate ventilation.

7.2 Storage Advice

Store Base in accordance with local regulations in a dry, well-ventilated area. Store Hardener in accordance with AS 3780 and local regulations. Keep filler in a dry, well ventilated area.

8. Exposure Controls/ Personal Protection

8.1 Exposure Standards

The NOHSC has not established an exposure standard for this product. The standard for some of the ingredients has been set: (Note that Crystalline Silica is a Category 1 Carcinogen and is only available for inhalation during mixing. Once thoroughly mixed the hazard cannot be realized unless the cured product is sawn or ground generating dusts.)

<i>Substance</i>	<i>TWA</i>	<i>STEL</i>
Crystalline Silica as quartz (Category 1 carcinogen)	0.2 mg/m ³	0.7mg/kg
Dibutyl Phthalate	5 mg/m ³	n.all.
4,4 diaminodiphenylmethane (sk, Category 2 Carcinogen)	0.81 mg/m ³	2 mg/m ³

8.2 Engineering Control Methods

Provide comfort level ventilation supplemented as necessary to ensure exposure is minimised.

8.3 Personal Protective Equipment

Respiratory Protection

If vapour concentrations are high use respirator fitted with an organic vapour filter to AS 1715 & 1716. In confined spaces use SCBA. The use of a dust mask or particle canister respirator to AS 1715 & 1716 is recommended if sanding or sawing the cured product. A dust mask is recommended when mixing the filler into the other components

Eye Protection

Use a full face shield or goggles to AS 1337 when mixing, decanting or using.

Gloves

When mixing and applying wear rubber, nitrile or butyl rubber gloves to AS2161.

Clothing

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

9. Physical and Chemical Properties

Appearance:	Black, high viscosity paste	Odour:	Base: epoxy Hardener: Amine-like
Freezing/ Melting Point:	>200°C Decomposes (Base) 10°C melts (Hardener)	Boiling Point:	>200°C (Base) > 200°C (Hardener)
Density:	1.10 g/cm ³ (Base) 1.05 g/cm ³ (Benzyl Alcohol)	Vapour Pressure:	0.01 Pa @ 25°C (Base) 0.003Pa (Hardener)
Solubility in water :	Insoluble (All Parts)	Volatiles: Percent	n.d.
Flash Point:	> 155°C (Base) 180°C (Hardener)	Flammability Limits:	n.d.
Ignition Point:	n.d.		
Other Properties	Hardener and base: Incompatible with acids, halogens, halogenated organic compounds and oxidisers.		

10. Stability and Reactivity

Product is stable in all normal circumstances of use. Amine (in hardener) absorbs carbon dioxide from the air to form carbamate salts.

11. Toxicological Information

Hardener LD₅₀ Oral Rat 1030 mg/kg, (Isophoronediamine) Both parts are strong skin sensitisers.

12. Ecological Consideration

Fish toxicity: LC50 / 96hrs/ 2.4 mg/L; LD50 / 96hrs Daphnia: 3.6 mg/L; LC50 Bacteria: > 100 mg/L (all data for base portion of product.) Hardener is toxic to aquatic organisms and may have long term adverse effects in the aquatic environment.

13. Disposal Considerations

When cured disposal may be in accordance with local regulations for non-hazardous waste . Individual parts are hazardous to the environment and must be disposed of in accordance with local regulations for hazardous waste.

14. Transport Information

Transport base as UN 3082 Class 9 PG III , hardener as UN 2810 Class 6.1 PG III in accordance with the ADG Code, the IMDG Code or the IATA DG Regulations as applicable to mode of transport. These regulations do not apply to the Filler.

Appropriate EPG Base: 9 C 1, SAA/NZS HB 76 76:1997 Guide 47. Hardener: 6A1 SAA HB 76:1997 Guide 36

15. Regulatory Information

Base: Label as a Schedule 5 Poison in accordance with the SUSDP: the word "WARNING" on the first line of the label in bold sans serif capital letters not less than 5mm tall. On the second line immediately below the word "WARNING" the phrase "KEEP OUT OF REACH OF CHILDREN" in bold sans serif capitals not less than 2.5 mm tall. Hardener: label as above, replace "WARNING" with "DANGEROUS POISON" Label in accordance with the "National Code of Practice"^{*1} for the Labelling of Workplace Substances" [NOHSC: 2012(1994)] with the Risk and Safety Phrases displayed on page 1 of this MSDS. Label Hardener as a Class 6 Poison N.O.S. (Contains 4,4'-diaminodiphenylmethane) vide the ADG Code, label Base as a Class 9 Environmentally Hazardous Liquid vide the ADG Code (Class label, Shipping name and UN Number). Filler has no special requirements except to display the Risk and Safety phrases and the word HAZARDOUS vide the Code of Practice^{*1}

16. Other Information

Date Prepared/Amended: 26-02-04 New version (1.1) to comply with National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition NOHSC: 2011 (2003), alteration to classification of hardener.

Data Sources used: in the preparation of this MSDS include: 'Chempendium' 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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