



SAFETY DATA SHEET

1: IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product Name: **NITOCOTE EP410 HARDENER**

Application: Hardener component of two part epoxy coating

Company: **Fosroc Limited**

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2: COMPOSITION/INFORMATION ON INGREDIENTS

Composition: modified aromatic amine, pigment, inorganic fillers.

Hazardous Ingredient(s)	Symbol	Risk Phrases	Other Information	%
4,4'-diaminodiphenyl methane	T, N	R45-20/21/22-48/20/21-43-51/53	Cas No: 101-77-9	>10 <25
dibutyl phthalate	Xn, N	R62, 63, 51/53	Cas No: 84-74-2 Cas No: Cas No: Cas No:	>25 <50

All constituents of this product are listed in EINECS (European Inventory of Existing Commercial Chemical Substances) or ELINCS (European List of New Chemical Substances) or are exempt.

Refer to Section 8 for Occupational Exposure Limits.

3: HAZARDS IDENTIFICATION

R45: May cause cancer.

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed

R48/20/21: Harmful: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin.

R43: May cause sensitisation by skin contact.

R62: Possible risk of impaired fertility.

R63: Possible risk of harm to the unborn child.

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment



TOXIC

Dangerous for the Environment

4: FIRST AID MEASURES

Eyes: Irrigate immediately with copious quantities of water for several minutes. Obtain medical attention urgently.

Skin: Wash immediately with soap and water or suitable skin cleanser. Obtain medical advice if skin disorders develop. Remove contaminated clothing immediately.

Inhalation: Remove from exposure, rest and keep warm and obtain medical attention urgently.

Ingestion: Wash out mouth with water and give sips of cold water to soothe the affected parts. Do NOT induce vomiting. Obtain medical attention urgently.

5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Carbon dioxide, powder, foam or water fog - Do not use water jets.

Special Exposure Hazards: Toxic fumes. For further information see Section 10.

Special Protective Equipment: Self-contained breathing apparatus.

6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear suitable protective clothing, gloves and eye/face protection.

Environmental Precautions: Prevent entry into drains, sewers and water courses.

Decontamination Procedures: Soak up with inert absorbent or contain and remove by best available means.
Gather into containers. Dispose of as waste.

7: HANDLING AND STORAGE

Handling: Maintain good standards of personal hygiene. Ensure adequate ventilation. Do not eat, drink or smoke whilst using this product. Do not use near sources of ignition. Avoid breathing vapours. Avoid skin and eye contact. Never transfer to an unlabelled container.

Storage: Store in cool, dry area. Keep away from foodstuffs and food containers. Store only in original container.

8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:-

Substance	8 Hour TWA	STEL	Source/Other Information
4,4'-methylenedianiline (4,4'-diaminodiphenyl methane)	0.08 mgm ⁻³ (MEL)	- - - -	EH 40
dibutyl phthalate	5 mgm ⁻³	10 mgm ⁻³	EH 40

Engineering Control Measures: Use only in well ventilated areas. Local exhaust ventilation is recommended.

Personal Protective Equipment: In case of insufficient ventilation wear suitable respiratory equipment. (Class 1 respirator CE marked to EN 140, with EN 141/143 Type A1 filter.). Avoid skin and eye contact. Impervious gloves (eg PVC). Safety glasses (Conforming to EN 166) / Goggles (Conforming to EN 166). Change contaminated clothing immediately and clean before re-use. A high standard of personal hygiene is essential.

9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Viscous liquid.

Colour: Green.

Odour: Amine.

pH(concentrate): Not applicable (non-aqueous).

pH(working dilution):

Boiling Point/Range (°C): >200

Melting Point/Range (°C):

Flash Point (closed, °C): >163

Autoflammability (°C):

Viscosity (at 20°C):

Explosive Properties (%): Not determined.

Oxidising Properties:

Vapour Pressure (kPa at 20°C): >0.3

Relative Density (at 20°C): 1.38

Water Solubility: Insoluble

Fat Solubility:

Partition Coefficient (n-octanol/water):

Other data:

10: STABILITY AND REACTIVITY

Stability: Stable.

Conditions to Avoid: Any source of ignition.

Materials to Avoid: Strong acids. Strong alkalis. Strong oxidising agents.

Hazardous Decomposition Products: Thermal decomposition:- Oxides of carbon. Nitrogen compounds, in some fire circumstances, hydrogen cyanide.

11: TOXICOLOGICAL INFORMATION

The following toxicological assessment is based on a knowledge of the toxicity of the product's components:
Oral LD50, rat >1800 mg/kg

Health Effects

On Eyes: May cause transient irritation.

On Skin: Harmful by absorption through the skin. Mildly irritating. May cause sensitisation.

By Inhalation: Harmful by inhalation. May cause respiratory irritation.

By Ingestion: Harmful if swallowed. May cause nausea, vomiting and diarrhoea.

Chronic: Based on the results of studies on experimental animals (rodents) 4,4'-diaminodiphenyl methane has shown to be an animal carcinogen. If absorbed into the body by ingestion, inhalation or by contact with skin or eyes it may cause damage to liver, kidney and eyes, especially from excessive exposure by accident or misuse.

Other:

12: ECOLOGICAL INFORMATION

Environmental Assessment: When used and disposed of as intended, no adverse environmental effects are foreseen.

Mobility: Viscous liquid. Insoluble in water.

Persistence and Degradability: Expected to be not readily biodegradable.

Bioaccumulative Potential: Expected to be bioaccumulative.

Ecotoxicity: Ecotoxic to fish/daphnia/algae.

13: DISPOSAL CONSIDERATIONS

Disposal must be in accordance with local and national legislation.

Unused Product: Classified as a special waste. Dispose of through an authorised waste contractor to a licensed site.

Used/Contaminated Product: As for Unused product.

Packaging: Must be disposed of through an authorised waste contractor.

14: TRANSPORT INFORMATION

UN Number: 2810

IMO: Class: 6.1 Packing Group: III Marine Pollutant: No

IATA/ICAO: Class: 6.1 Packing Group: III

ADR: Class: 6.1 Item: 25(c)

Transport Name: Toxic liquid, organic mixture, nos (4,4'-Diaminodiphenylmethane mixture)

Hazchem/Kemler Code: 2Z / 60

15: REGULATORY INFORMATION

Hazard Label Data:-

Named Ingredients: 4,4'-diaminodiphenylmethane
dibutyl phthalate

UN Number: 2810
Symbol(s): T
Risk Phrases: R45: May cause cancer.
R20/21/22: Harmful by inhalation, in contact with skin and if swallowed
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Safety Phrases: S53: Avoid exposure - obtain special instructions before use.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S001: Restricted to professional users.

EC Directives: Dangerous Substances Directive, 67/548/EEC and adaptations.
Dangerous Preparations Directive, 88/379/EEC.
Safety Data Sheets Directive, 91/155/EEC.
Carcinogens Directive, 90/394/EEC.

Statutory Instruments: Chemicals (Hazard Information and Packaging for Supply) (Amendment) Regs. 1996 (SI 1092).
Health & Safety at Work, etc. Act 1974.
Control of Substances Hazardous to Health Regs. 1999 (SI 3246).
The Special Waste Regulations 1996 (SI 972).

Codes of Practice: Control of substances hazardous to health & control of carcinogenic substances (L5).
Waste Management. The Duty of Care.

Guidance Notes: Occupational skin diseases: health and safety precautions (EH 26).
Occupational exposure limits (EH 40).

The above publications are available from HMSO

16: OTHER INFORMATION

Also refer to the Safety Data Sheet(s) for information on other components of this product.

The data and advice given apply when the product is used for the stated application or applications. The product is not sold as suitable for any other application. Use of the product for applications other than as stated in this sheet may give rise to risks not mentioned in this sheet. The product should not be used other than for the stated application or applications without seeking advice from Fosroc Ltd.

If this product has been purchased for supply to a third party for use at work, it is the purchaser's duty to take all necessary steps to secure that any person handling or using the product is provided with the information in this sheet.

It is the responsibility and duty of the employer to inform employees and others who may be affected of any hazards described in this sheet and of any precautions which should be taken.

This sheet does not constitute or substitute for the users own assessment of workplace risk, as required by other health and safety legislation.

Further copies of this Safety Data Sheet may be obtained from Fosroc Limited.

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SDS Reference: 0260/1 EP410 HAR

REVISION

Supersedes issue no: 03 dated: 14.08.96

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