

MATERIAL SAFETY DATA SHEET

1. Identification of the substance/preparation and company

Product Name: Flowcem Hardener B (formerly known as Isosmooth DPM)

Application: Amine component of a 3 pack surface damp proof membrane.
Mixed product is applied using a trowel.

Manufacturer: Flowcrete SA (Pty) Ltd
176 Voortrekker Street
Jacobs
4052

Telephone Number: (031) 461 3411

2. Composition/information on constituents

Chemical Name	EINECS No.	CAS No.	% by weight	Symbols and Risk Phrases
Polyoxypropylenediamine	- - -	9046-10-0	< 5	C; R21/22. R34. R43.
Tetraethylenediamine	203-986-2	112-57-2	< 5	C; R21/22. R34. R43. R51/53.

Also contains water and non-classified modified polysiloxane oligomers.
See section 16 Additional information, for full text regarding symbols and Risk phrases.

3. Hazards Identification

May cause sensitisation by skin contact.

Repeated and/or prolonged exposure may cause an allergic reaction/sensitisation.
Once sensitised, an individual may produce an allergic eczema reaction every time they are in contact with this material.

Product vapour in low concentration can cause lacrimation, conjunctivitis and corneal oedema when absorbed onto the tissue of the eye from the atmosphere. Corneal oedema can cause the perception of "blue haze" or "fog" around lights, although this is a temporary effect and has no known residual effect.

Inhalation of vapours and/or aerosols in high concentration (e.g. when sprayed) may cause irritation of the respiratory system. In low concentrations may cause a sore throat.

When the base is mixed with the hardener an exothermic reaction starts (i.e. heat is generated).
If the mix is not applied within 20 - 30 minutes some smoking may occur.

4. First Aid measures

Inhalation : Move to fresh air. If breathing has stopped or is laboured give assisted respiration (e.g. mouth to mouth). Seek immediate medical aid.
Prevent aspiration of vomit, turn victim's head to the side.

Skin contact : Remove contaminated clothing and shoes (Launder contaminated clothing before re-use.)
Remove product from skin and immediately wash affected area with water and soap.
Note to physicians: Application of corticosteroid cream has been effective in treating skin irritation.

- Eye** : Hold eyelids apart and immediately flush with plenty of water for at least 15 minutes.
- Contact** : Seek medical advice.
- Ingestion** : Administer 3 – 4 glasses of milk or water (never give anything by mouth to an unconscious person).
Do not induce vomiting unless under medical supervision. Seek medical advice.

5. Fire-fighting measures

- Suitable extinguishing media** : Ignition will give rise to a Class B fire.
In case of large fire use: Water spray, alcohol resistant foam.
In case of a small fire use: carbon dioxide (CO₂), dry chemical, dry sand or limestone.
- Un-Suitable extinguishing media** : High volume water jet.
- Special exposure hazards** : Burning produces noxious and toxic fumes – carbon and nitrogen oxides, plus ammonia.
Use of water may produce very toxic aqueous solutions.
Contact of liquid with the skin must be prevented.
Personnel in vicinity and downwind should be evacuated.
- Special protective equipment** : Wear self-contained breathing apparatus, butyl rubber boots, gloves and protective suit.
- Additional information** : Retain expended liquids from fire fighting for later disposal.
Standard procedure for chemical fires.
Water mist may be used to cool closed containers.

6. Accidental release measures

- Personal precautions** : Use personal protective equipment as detailed in Section 8.
Ensure adequate ventilation.
Keep away from sources of ignition – No smoking.
Do not breathe vapours.
- Environmental precautions** : Prevent the product from entering drains.
Avoid subsoil penetration.
Do not contaminate surface water, construct a dike to prevent spreading.
- Methods for cleaning up** : Soak up with an inert absorbent material (e.g. sand) and dispose as detailed in section 13.

7. Handling and storage

- Handling** : Provide sufficient air exchange and/or exhaust in work rooms. Avoid formation of aerosol.
Ensure adequate ventilation, avoid breathing of vapours.
Use personal protective equipment as detailed in Section 8.
Handle and open container with care. Do not eat, drink or smoke when handling.
- Storage** : Keep containers tightly closed and store in a cool, well-ventilated place. Protect from freezing.
Keep away from drink, food, food containers and animal feeding stuffs.
Do not store with strong acids and strong oxidising agents.

8. Exposure controls/personal protection

No Occupational Exposure Standard (OES) has been set for the ingredients in this product.

- Engineering measures to reduce exposure** : Ensure adequate ventilation, especially in confined areas.
- Personal protective equipment**
- Respiratory protection** : Not required under normal conditions in a well ventilated workplace.
A respirator will be required for spray applications, viz. chemical cartridge respirator with face piece to protect against the organic vapour, NIOSH

- approved supplied air respirator with full face shield or self-contained breathing apparatus in pressure demand mode.
- Eye protection** : Full face shield or safety goggles.
- Hand protection** : Impermeable gloves (PVC, butyl or nitrile rubber).
Check regularly for degradation/holes and replace as necessary.
- Skin and body protection** : Protective suit and heavy duty work shoes.
- Protective measures** : Handle in accordance with good industrial hygiene and safety practice.
Wash hands before breaks and immediately after handling the product.
When using, do not eat, drink or smoke.

9. Physical and chemical properties

Appearance	: Pale Yellow	pH	: alkaline
Odour	: Amine like	Relative Density	: ~1.05
Boiling Point	: >100 °C	Water solubility	: >90%
Flashpoint	: >100 °C	Organic solvent solubility	: Soluble.
Vapour pressure	: < 5 mm Hg at 21 °C		

10. Stability and reactivity

Material is stable.

When the base is mixed with the hardener an exothermic reaction starts (i.e. heat is generated).
If the mix is not applied within 20 - 30 minutes some smoking may occur.

- Conditions to avoid** : Take precautionary measures against extremes of temperature. Protect from freezing.
- Materials to avoid** : Strong acids and strong oxidising agents. Reaction with peroxides may result in violent decomposition of peroxide, possibly creating an explosion.
Slowly corrodes copper, aluminium and zinc (includes galvanised surfaces).
- Hazardous decomposition products** : Ammonia produced when heated.
Irritating and toxic fumes at elevated temperatures.
Burning produces noxious and toxic fumes of nitrogen oxides, ammonia, carbon monoxide and carbon dioxide (CO₂).

11. Toxicological information

- Acute toxicity** : Oral toxicity - LD₅₀ (rat) - 2000 mg/kg (estimate)
- Eye irritation** : Severe eye irritant.
- Skin Irritation** : Dermal toxicity - LD₅₀ (rabbit) - 2000 mg/kg (estimate).
Mild skin irritant.
- Sensitisation** : May cause sensitisation by skin contact.
Sensitisation has occurred in laboratory animals after repeated exposures.
- Carcinogenicity** : This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater.

12. Ecological information

- Ecotoxicity** : Daphnia magna EC₅₀ > 10 mg/l 24 hr test
Daphnia magna EC₅₀ > 1.21 mg/l 48 hr test
- Mobility** : Soluble in water.
- Bioaccumulative potential** : No data.
- Additional ecological information** : Avoid subsoil penetration.
Prevent product from entering drains, do not contaminate surface water.

13. Disposal considerations

- Unused Product/waste from cleaning etc.** : Dispose in compliance with local and national regulations.
EC Waste Catalogue (EWC) code: 080112.
- Contaminated packaging** : Partially filled containers shall be disposed of as for the product above.
Well drained containers shall be disposed of as non-hazardous packaging waste.
Use EWC Code 150102 for plastic.

14. Transport information

Not regulated for transport.

15. Regulatory information

Classification according to EEC directive. Labelling requirements.

Hazard Symbols:



Irritant

R-phrases

R42/43 : May cause sensitisation by skin contact.

S-phrases

S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.

Special provisions statement

: Keep liquid above freezing.

Hazardous component(s) which must be listed on the label

: Polyoxypropylenediamine mixture

EC Directives:

Dangerous Substances Directive, 67/548/EEC & adaptations.
Dangerous Preparations Directive, 1999/45/EC.
Safety Data Sheets Directive, 91/155/EEC and adaptations.

Statutory Instruments:

Chemicals (Hazard Information & Packaging for Supply) Regs 2002.
Control of Substances Hazardous to Health Regs 2002.
Environmental Protection (Duty of Care) Regs. 1991.

Codes of Practice

Waste Management. The Duty of Care.
Approved classification and labelling guide (Fifth edition). L131.
The compilation of safety data sheets (Third edition).

Guidance Notes

Occupational Exposure Limits EH40
CHIP for Everyone HSG(108)

16. Other Information

This safety data sheet has been prepared in accordance with CHIP3. The text has changed in sections 1 and 13.

The provision of Safety data sheets comes under Regulation 6 of CHIP (CHIP is the recognised abbreviation for the Chemicals, Hazard Information and Packaging Regulations). This is in addition to the Health and Safety at Work Act 1974.

Users of our products should take appropriate measures to ensure working practices are in accordance with the Control of Substances Hazardous to Health Regulations (COSHH).

This data sheet does not replace the obligation of the user to provide their own assessment of workplace risk as required by other Health & Safety legislation.

EC Directive relating to the classification, packaging and labelling of dangerous substances and preparations –

Classification(s) and Risk (R) phrase(s) referred to in this document:

C : Corrosive Xi : Irritant
N : Dangerous for the environment

R21/22 : Harmful by skin contact and if swallowed.
R34 : Causes burns.
R43 : May cause sensitisation by skin contact.
R51/53 : Toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

Training Advice

Applicators need to be trained in:-

Handling and hygiene associated with use of industrial chemicals.
Correct mixing and application of the product.
Correct cleaning and disposal methods.

Restrictions on Use

The product is intended for use by appropriately trained applicators in industrial situations. It is not suitable for use in home DIY applications, especially because of its hazardous nature and the protective measures required.

Notes

Do not use organic solvents for skin cleansing, it will lead to defatting of the skin, skin irritation and/or dermatitis.

Some solvents can be absorbed through the skin.

Beware of cross contamination where different products are in use in the same location.

When the base is mixed with the hardener an exothermic reaction starts (i.e. heat is generated).

If the mix is not applied within 20 - 30 minutes some smoking may occur.

This safety data sheet is based on our present knowledge and experience and is intended to serve as a guide for safe handling of the product regarding to health and environmental aspects.

Flowcrete SA (Pty) Ltd
176 Voortrekker Street
Jacobs
Durban
Kwa Zulu Natal
Tel: +27 31 461 3411
Fax: +27 31 461 3475

Flowcrete SA (Pty) Ltd
47 Forge Road
Spartan
Gauteng
Tel: +27 11 394 1980
Fax: +27 11 394 3003

Flowcrete SA (Pty) Ltd
1A Gabriel place
Cnr Gabriel & Main Road
Plumstead
Cape Town
Tel: +27 21 797 0214
Fax: +27 21 761 6664

Email: southafrica@flowcrete.com
Flowcrete SA (Pty) Ltd is a subsidiary of Flowcrete Group plc

www.flowcrete.com