Flowcrete
for the world at your feet

SAFETY DATA SHEET

Revision 1 Date Issued: January 2014

1. Identification of the substance/preparation and company

Product Name: **Flowcoat SF41 Base A**

Application: Epoxy resin based component of a 2 pack floor coating.
Mixed product is applied using a brush, roller and/or squeegee.

Manufacturer:
Flowcrete SA (Pty) Ltd, 176 Voortrekker Street, Jacobs 4052
Tel: +27 (0)31 461 3411 Fax: +27 (0)31 461 3475
E-mail: southafrica@flowcrete.com Website: http://www.flowcretesa.co.za

2. Composition/information on constituents

Chemical Name	EINECS No.	CAS No.	% by weight	Symbols and Risk Phrases
Bisphenol A/F epoxy resins, mw <700	-	40216-08-8	35 - 50	Xi; N; R43. R36/38. R51/53.
Hexane-1,6-diol diglycidyl ether	240-260-4	16096-31-4	< 5	Xi; R43. R36/38. R52/53.
Benzyl Alcohol	202-859-9	100-51-6	< 8	Xn; R20/22.
Solvent naphtha (petroleum), light aromatic (< 0.1% benzene)	265-199-0	64742-95-6	< 2	Xn; N; R10. R37. R65. R51/53.

Also may contain various non-classified pigments, thixotropic agents, surfactants and additives.
See section 16 Additional information, for full text regarding symbols and Risk phrases.

3. Hazards Identification

Irritating to eyes and skin. Acute effects: Contact with eyes may cause mild irritation and discomfort. Contact with skin causes irritation, redness and discomfort which is transient. Inhalation of mists may cause irritation of the respiratory tract. Coughing and chest pain may result.

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 reaction every time they are in contact with epoxy resin.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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). If symptoms persist seek medical advice. Prevent aspiration of vomit, turn victim's head to the side.

Skin contact : Remove contaminated clothing and shoes. Remove product from skin and wash with soap and plenty of water. Clean with detergents, avoid use of solvents.

Eye Contact : Hold eyelids apart and immediately flush with plenty of water for at least 15 minutes. If irritation persists, seek medical advice.

Ingestion : Immediately seek medical advice. Do not induce vomiting (unless under medical supervision). If a person vomits when lying on his back, place him in the recovery position. Never give anything by mouth to an unconscious person.

5. Fire-fighting measures

Suitable extinguishing media : Water spray, carbon dioxide (CO_2), foam or dry powder.

Un-Suitable extinguishing media : High volume water jet.

Special exposure hazards : Burning produces noxious and toxic fumes – carbon monoxide and dioxide.

Special protective equipment : Wear self-contained breathing apparatus and protective suit.

Additional information : Standard procedure for chemical fires.
Water mist may be used to cool closed containers.

6. Accidental release measures

Personal precautions : Keep unauthorised people away. Use personal protective equipment as detailed in Section 8. Ensure adequate ventilation. Do not breathe vapours.

Environmental precautions : Prevent the product from entering drains.
Avoid subsoil penetration. Do not contaminate surface water.

Methods for cleaning up : Soak up with an inert absorbent material (e.g. sand) and dispose of as hazardous waste.

7. Handling and storage

Handling : Provide sufficient air exchange and/or exhaust in workrooms. Avoid formation of aerosol.
Ensure adequate ventilation.
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 well-ventilated place at 15 - 40 °C.
Keep away from drink, food, food containers and animal feeding stuffs.
Do not store with strong bases, strong acids and strong oxidising agents.

8. Exposure controls/personal protection

Occupational Exposure Standard, 125 mg/m^3 8hr TWA (Time Weighted Average)
Solvent naphtha (measured as for trimethylbenzenes, all isomers or mixtures)

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.

Eye protection : Closely fitting safety goggles or face shield.

Hand protection : Rubber or plastic gloves (Polyvinyl alcohol, nitrile-butyl, neoprene).
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. Eye wash facility.

9. Physical and chemical properties

Appearance	:	Liquid, colour on label	pH	:	Not determined.
Odour	:	slight	Relative Density	:	~1.56
Boiling Point	:	>200 °C	Water solubility	:	Practically insoluble at 20 °C
Flashpoint	:	>200 °C	Water miscibility	:	Immiscible
Explosion limits	:	Not explosive.		:	

10. Stability and reactivity

Material is stable if stored under recommended storage and handling conditions.
Material decomposes at high temperatures. Avoid temperatures above 40 °C.

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, avoid temperatures above 40 °C.

Materials to avoid : Strong oxidising agents. Strong acids and strong bases.

Hazardous decomposition products : Does not occur at recommended storage and handling conditions.
Burning produces noxious and toxic fumes of carbon monoxide and carbon dioxide (CO_2).

11. Toxicological information

Acute oral toxicity : LD_{50} (rat) dose > 5,000 mg/kg (epoxy resin)
LD_{50} (rat) = 2900 mg/kg (hexane-1,6-diol diglycidyl ether)

Inhalation : May be mildly irritating. Irritating vapour can be formed when heated or during spraying.

Eye irritation : Irritating (rabbit), may cause a sting.

Skin Irritation : Irritating (rabbit) dermal.

Sensitisation : Causes sensitisation (guinea pig) dermal – prolonged or repeated contact may result in an allergic eczema reaction each time the person is in contact with the material.

12. Ecological information

Ecotoxicity : Epoxy resin - EC_{50}/72hr/algae = 9.4 mg/l.
hexane-1,6-diol diglycidyl ether – LC_{50}/fish = 10 - 100 mg/l

Mobility : Mobile

Persistence and degradability : Not readily biodegradable.

Bioaccumulative potential : No data available.

Additional ecological information : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Avoid subsoil penetration.
Prevent product from entering drains, do not contaminate surface water.

13. Disposal considerations

Unused Product/waste from cleaning etc. : Must be disposed in compliance with local regulations.

EC Waste Catalogue (EWC) code: 08 01 11 Waste products from the Manufacture, Formulation, Supply and Use (MFSU) of paint and varnish. Waste paint and varnish containing organic solvents or other dangerous substances.

Unused product can be mixed with Hardener B and disposed of under EC Waste Catalogue (EWC) code: 08 01 12 (not a hazardous waste).
Remove/invalidate the warning label.

Contaminated packaging : If the container has been used for mixing with the Hardener, packaging can be landfilled in accordance with local regulations. Remove/invalidate the warning label.

If the container has not been used for mixing with the Hardener, treat as for unused product.

Empty containers can be landfilled after cleaning, in accordance with local regulations. Remove/invalidate the warning label.

14. Transport information

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s.
UN No: 3082

ADR/RID

Class	:	9	**Item No**	:	11 ° c
HI No	:	90	**Packing Group**	:	III
Contains	:	Bisphenol A/F epoxy resin MW<700			

IMO

Class	:	9	**Marine Pollutant**	:	Yes.
Packing Group	:	III			
Contains	:	Bisphenol A/F epoxy resin MW<700			

IATA

Class	:	9	**Packing Instruction**	:	914
Packing Group	:	III	(Cargo aircraft)		
Contains	:	Bisphenol A/F epoxy resin MW<700			

15. Regulatory information

Classification according to EEC directive:
Symbols:

Xi - Irritant

N – Dangerous for the environment

R-phrases

R36/38	:	Irritating to eyes and skin.
R43	:	May cause sensitisation by skin contact.
R51/53	:	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases

S28	:	After contact with skin, wash immediately with plenty of water and soap.
S36/37/39	:	Wear suitable protective clothing, gloves and eye/face protection.
S60	:	This material and its container must be disposed of as hazardous waste.
S61	:	Avoid release to the environment. Refer to special instructions/safety data sheets.

Special provisions statement	:	Contains epoxy constituents. See information supplied by the manufacturer.
Hazardous component(s) which must be listed on the label	:	Reaction product: bisphenol A/F – (epichlorhydrin); epoxy resin (number average molecular weight <700)

EC Directives:	Dangerous Substances Directive, 67/548/EEC & adaptations Dangerous Preparations Directive, 88/379/EEC Safety Data Sheets Directive, 91/155/EEC
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 in each section and the section order/ headings are in line with the requirements of CHIP3. 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:

Xi	:	Irritant	N	:	Dangerous for the environment
Xn	:	Harmful			

R10	:	Flammable.
R36/38	:	Irritating to eyes and skin.
R37	:	Irritating to respiratory system.
R43	:	May cause sensitisation by skin contact.
R51/53	:	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	:	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	:	Harmful: may cause lung damage if swallowed.

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.

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.