

Revision 3 Date Issued: 30th March 2007

1. Identification of the substance/preparation and company

Product Name: Flowcrete HF Cove Base A

Application: Polyol based component of a 3 pack polyurethane floor cove.
Mixed product is applied by trowel.

Manufacturer:

Flowcrete UK Ltd., The Flooring Technology Centre, Booth Lane, Moston, Sandbach, Cheshire. CW11 3QF
Tel: +44 (0)1270 753000 Fax: +44 (0)1270 753333
E-mail: technical@flowcrete.com Website: <http://www.flowcrete.com>

2. Composition/information on constituents

Chemical Name	EINECS No.	CAS No.	% by weight	Symbols and Risk Phrases
Dipentene/terpene alcohols mixture	205-341-0	138-86-3	< 3	Xi; N; R10. R38. R43. R50/53.

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

3. Hazards Identification

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

Harmful 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** : Remove from exposure – unlikely to occur because of the low volatility of the product.
- Skin contact** : Wash with soap and plenty of water or a suitable skin cleanser as soon as possible.
If a rash develops and/or irritation persists, seek medical advice.
- Eye Contact** : Hold eyelids apart and immediately flush with plenty of water for at least 15 minutes.
If irritation persists, seek medical advice.
- Ingestion** : Wash out mouth with water. Drink 3 or 4 glasses of water. Obtain medical attention.
Do not induce vomiting unless under medical supervision.

5. Fire-fighting measures

- Suitable extinguishing media** : Water spray, carbon dioxide (CO₂), foam, dry powder.
- Un-Suitable extinguishing media** : High volume water jet.
- Special exposure hazards** : Burning produces noxious and toxic fumes – mostly carbon oxides, with a small amount of nitrogen oxides and a trace of hydrogen cyanide.
- Special protective equipment** : Wear self-contained breathing apparatus and protective suit.
- Additional information** : None.

6. Accidental release measures

- Personal precautions** : Be aware the product may cause a slip hazard.
Use personal protective equipment as detailed in Section 8.
Ensure adequate ventilation.
- Environmental precautions** : Prevent entry into drains, sewers and water courses.
- Methods for cleaning up** : Soak up with inert absorbent material or contain and remove by best available means.
Collect in suitable containers for disposal in accordance with Section 13

7. Handling and storage

- Handling** : Ensure adequate ventilation. Use personal protective equipment as detailed in Section 8.
Handle and open container with care. Avoid skin and eye contact.
Wash hands thoroughly after handling or contact.
- Storage** : Store in a dry, cool, well-ventilated place.

8. Exposure controls/personal protection

Exposure limit values:- No ingredients with limits assigned.

Engineering measures to reduce exposure : No specific ventilation requirement noted.

- Personal protective equipment** :
- Respiratory protection** : Not required.
- Eye protection** : Goggles or face shield.
- Hand protection** : Impervious gloves e.g. nitrile rubber.
Check regularly for degradation 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	: Liquid, colour on label	Relative Density	: ~1.02
Odour	: Slight	Water solubility	: Insoluble
Boiling Point	: Not determined, but >100°C	Miscibility	: ~1%
Flashpoint	: >100°C	Vapour pressure	: Not determined.
Explosion limits	: Not applicable		

10. Stability and reactivity

Material is stable if stored as indicated in section 7.

- Conditions to avoid** : None known.
- Materials to avoid** : Strong oxidising agents.
- Hazardous decomposition products** : Thermal decomposition - irritant and noxious fumes, mostly carbon oxides,
with small amounts of nitrogen oxides and a trace of hydrogen cyanide.

11. Toxicological information

Acute oral toxicity	: LD ₅₀ Oral (Rat) : > 2,000 mg/kg (Based on a knowledge of the toxicity of the components.)
Eye irritation	: May cause transient irritation.
Skin Irritation	: Unlikely to irritate on brief or occasional exposure.
Sensitisation	: Dipentene/terpene alcohols mixture is a skin sensitiser (from experience in use).
Long term toxicity	: No data.
Mutagenicity	: There is no known evidence this material or its constituents are mutagenic.
Carcinogenicity	: There is no known evidence this material or its constituents are carcinogenic.
Reproductive toxicity (fertility, developmental)	: There is no known evidence this material or its constituents are toxic for reproduction.

12. Ecological information

Ecotoxicity	: Harmful to aquatic organisms, may cause long-term effects in the aquatic environment.
Persistence and degradability	: <u>Dipentene/terpene alcohols mixture</u> 100% volatile, but with a slow evaporation rate.
Bioaccumulative potential	: Not known.
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.	: Must be disposed in compliance with local and national regulations. EC Waste Catalogue (EWC) code: 08 01 11* (Hazardous waste). Environmental.
Contaminated packaging	: Partially filled containers shall be disposed as for the product above. Well drained containers shall be disposed of as hazardous packaging waste. Use EWC Code 150110*. (Environmental) After cleaning, empty containers can be disposed as non-hazardous packaging waste. Remove/invalidate the warning label. Use EWC Code 150102 for plastic, 150104 for metal.

14. Transport information

Not regulated for transport.

15. Regulatory information

Classification according to EEC directive:

Symbols:



Xi - Irritant

R-phrases :
R43 : May cause sensitisation by skin contact.
R52/53 : Harmful 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.
S61 : Avoid release to the environment. Refer to special instructions/safety data sheet.

Special provisions statement : None.

Hazardous component(s) which must be listed on the label : Dipentene/terpene alcohols mixture

EC Directives: Dangerous Substances Directive, 67/548/EEC & adaptations
Dangerous Preparations Directive, 1999/45/EC
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 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:

Xi : Irritant N : Dangerous for the environment.

R10 : Flammable.
R38 : Irritating to skin.
R43 : May cause sensitisation by skin contact.
R50/53 : Very 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.

The European Committee of Paint, Printing Ink and Artist's Colours Manufacturers' Associations (CEPE) provides the following information on coatings containing isocyanates:-
"Ready-to-use paints containing isocyanates may have an irritant effect on mucous membranes – especially on breathing organs – and cause hypersensitivity reactions. Inhalation of vapour or spray mist may cause sensitisation. When handling paints containing isocyanates all precautions required for solvent-containing paints must be followed. Vapour and spray mist in particular should not be inhaled. Persons who are allergic, asthmatic or prone to respiratory ailments should not work with isocyanate-containing paints."

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.

Take into account the Manual Handling regulations when dealing with the mixed product.

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.

Revision 2 Date Issued: 30th March 2007

1. Identification of the substance/preparation and company

Product Name: Flowcrete HF Cove Hardener B

Application: Hardener B, polyisocyanate component of a 3 pack polyurethane floor cove.
Polyisocyanate based on diphenylmethane diisocyanate. Mixed product is applied by trowel.

Manufacturer:

Flowcrete UK Ltd., The Flooring Technology Centre, Booth Lane, Moston, Sandbach, Cheshire. CW11 3QF
Tel: +44 (0)1270 753000 Fax: +44 (0)1270 753333
E-mail: technical@flowcrete.com Website: <http://www.flowcrete.com>

2. Composition/information on constituents

Chemical Name	EINECS No.	CAS No.	% by weight	Symbols and Risk Phrases
4,4'-diphenylmethane-diisocyanate isomers and homologues		9016-87-9	>25	Xn; R20; R36/37/38;R42/43

See section 16 Additional information, for full text regarding symbols and Risk phrases.

3. Hazards Identification

Harmful by inhalation. This hazard is most likely to arise when materials are heated, sprayed, used in a confined unventilated space or if correct handling procedures are not followed.

Irritating to eyes, respiratory system and skin. In mild cases the affected person may experience slight irritation of the eyes, nose and throat, possibly combined with dryness of the throat. In more severe cases the person may suffer acute bronchial irritation and difficulty in breathing.

May cause sensitisation by inhalation and 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 isocyanates. Individuals who have developed sensitivity may experience wheezing, tightness of the chest and shortness of breath. A hyper-reactive response to even minimal concentrations of isocyanate may develop in sensitised persons.

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** : Remove affected person from exposure, keep them warm and at rest. Obtain medical attention. Delayed appearance of the complaints (difficulty in breathing, coughing, asthma) are possible following severe exposure.
- Skin contact** : Wash with soap and plenty of water or a suitable skin cleanser as soon as possible. If irritation persists, seek medical advice.
- Eye Contact** : Hold eyelids apart and carefully and thoroughly flush with plenty of water for at least 15 minutes. Seek medical advice.
- Ingestion** : If the person is conscious, wash out mouth with water. Do not swallow mouth wash. Seek medical advice.

5. Fire-fighting measures

- Suitable extinguishing media** : Carbon dioxide (CO₂), foam, dry powder. Water spray should be used for larger fires.
- Un-Suitable extinguishing media** : High volume water jet.
- Special exposure hazards** : Burning produces carbon oxides, hydrogen cyanide, nitrogen oxides and isocyanate vapour.
- Special protective equipment** : Wear self-contained breathing apparatus and protective suit.
- Additional information** : Do not allow contaminated extinguishing water to enter the soil, drains, sewers or water courses.

6. Accidental release measures

- Personal precautions** : Use personal protective equipment as detailed in Section 8.
Ensure adequate ventilation.
If a major spillage (an area greater than 2 square metres), clear the area of non-essential personnel.
- Environmental precautions** : Prevent further leakage or spillage and prevent entry into drains, sewers and water courses. The reaction with water produces carbon dioxide and insoluble material which could cause the drains to block. If any enters drains, flush away with copious amounts of water.
- It is an offence to discharge effluent down the drain without prior consent from the appropriate authority. Check where the drain chosen for disposal goes. If it goes to a watercourse, check that disposal of the spillage will comply with the Environmental Agency or SEPA consent. If it goes to the sewer, check the consent issued by the sewerage authority.
- If washing the spillage to drain will breach a consent condition, dispose of in another way. Make sure the disposal site is licensed to accept this type of waste.
- Methods for cleaning up** : Soak up with inert absorbent material (e.g. sand, sawdust) wetted out with water to expedite the process.
Leave the material to react for 30 minutes.
Shovel into suitable open-top containers, do not close container for at least 24 hours (because of evolution of carbon dioxide) and keep damp in a safe, well ventilated area.
Dispose in accordance with Section 13.
Wash the area with plenty of water.

7. Handling and storage

- Handling** : Ensure adequate ventilation or provide exhaust ventilation in work area.
- If sprayed (not recommended), exhaust ventilation is required and all other personnel to be excluded from area. In all areas where isocyanate aerosols and/or vapour concentrations are produced, exhaust ventilation must be provided in such a way that the MEL (see section 8) is not exceeded. The air should be drawn away from the personnel handling the product.
- Use personal protective equipment as detailed in Section 8.
Handle and open container with care. Avoid skin and eye contact.
- Storage** : Store in a dry, cool, well-ventilated place. Keep container tightly closed.
Do not allow to freeze as some crystallisation will occur.
Maintain store between temperatures 10 - 35 °C.

8. Exposure controls/personal protection

Workplace Exposure Limit (WEL) : Isocyanates, all (expressed as –NCO)
0.02 mg/m³ 8 hour Time Weighted Average (TWA)
0.07 mg/m³ 15 minute Short Term Exposure Limit (STEL)

Exposition assessment value (EBW) per TRGS 430 (German regulations)
Polyisocyanate content (MDI oligomers and/or prepolymers): 43%
Use an exposition assessment value of 0.05 mg/m³.

Engineering measures to reduce exposure : Ensure adequate ventilation, especially in confined areas.
If sprayed, exhaust ventilation is required.

Personal protective equipment :

Respiratory protection : Required in insufficiently ventilated working areas (especially during mixing and always if sprayed). An air-fed mask, or for short periods of work, a combination of charcoal filter and particulate filter respirator.
In the case of hypersensitivity of the respiratory tract (e.g. asthmatics and those who suffer from chronic bronchitis) it is inadvisable to work with the product.

Eye protection : Goggles or full face shield.

Hand protection : Impermeable gloves (nitrile butadiene rubber [NBR], Butyl rubber [IIR], Fluorinated rubber [FKM], polyvinyl chloride [PVC], polychloroprene [CR]) .
Isocyanates can harden gloves and increase the risk of their splitting.
Check regularly for degradation 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	: Dark brown coloured liquid.	Relative Density	: ~1.23 at 25 °C
Odour	: Earthy, musty	Water solubility	: Insoluble, reacts to produce carbon dioxide and polyurea solid.
Boiling Point	: > 300 °C, decomposes/polymerises	Ignition temperature	: >400 °C
Flashpoint	: > 180 °C	Explosion limits	: Not applicable
Vapour pressure	: <0.001 Pa at 25 °C (100 Pa = 1 mbar)		

10. Stability and reactivity

Material is stable when stored and handled correctly.

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 : Avoid high temperatures. Do not allow to freeze.

Materials to avoid : Exothermic reaction with amines, alcohols.
Reacts with water forming carbon dioxide and polyurea solid.

Hazardous decomposition products : No hazardous decomposition products when stored and handled correctly.
Thermal decomposition – polymerises at >300 °C with evolution of carbon dioxide.

11. Toxicological information

- Acute oral toxicity** : LD₅₀ Oral (rat) : >5,000 mg/kg
- Inhalation** : LC₅₀ inhalation (rat) ca. 490 mg as aerosol/m³, 4 hrs exposure.
Concentration of saturated vapour: 0.09 mg/m³ at 25 °C
- Irritation** : Over exposure, especially when spraying without the necessary precautions, entails the risk of concentration dependant irritating effects on eyes, nose, throat and respiratory tract.
In mild cases the affected person may experience slight irritation of the eyes, nose and throat, possibly combined with dryness of the throat. In more severe cases the person may suffer acute bronchial irritation and difficulty in breathing.
- Skin** : Prolonged contact with the skin may cause tanning and irritant effects.
LD₅₀ Dermal (rabbit) > 9,000 mg/kg
- Sensitisation** : Repeated and /or prolonged exposure, especially at levels above the MEL, may cause an allergic reaction/respiratory sensitisation. Once sensitised, an individual may produce an allergic reaction every time they are in contact with isocyanates. Individuals who have developed sensitivity may experience wheezing, tightness of the chest and shortness of breath. A hyper-reactive response to even minimal concentrations of isocyanate may develop in sensitised persons.
The onset of respiratory symptoms (difficulty in breathing, coughing, asthma) may be delayed for several hours after exposure.
Repeated and/or prolonged skin contact may cause skin sensitisation.
Animal studies have shown that respiratory sensitisation can be induced by skin contact with known respiratory sensitisers including diisocyanates.
- Long term toxicity** : Animal testing has shown no long term adverse effects at or below the MEL.
Chronic pulmonary irritation observed at high concentrations. There are reports that chronic exposure by inhalation may result in decreases in lung function.
- Carcinogenicity** : It is currently proposed that the classification for diphenylmethane diisocyanate be changed to carcinogenic, category 3, when it is in the form of respirable aerosol e.g. when sprayed.
- Mutagenicity** : There is no substantial evidence of mutagenic potential.
- Reproductive toxicity** : No birth defects seen in animal (rat) studies.
Fetotoxicity was observed at doses that were extremely toxic (including lethal) to the mother.
Fetotoxicity was not observed at doses that were not maternally toxic.

12. Ecological information

- Ecotoxicity** : Observed ecotoxicity to fish, bacteria and invertebrates is low/very low and to worms and plants is very low.
Brachydanio rerio LC₀ : > 1000 mg/l 96 hour test
Daphnia EC₅₀ : > 1000 mg/l 24 hour test
Acute bacteria toxicity EC₅₀ : > 100 mg/l 3 hour test
Tested on activated sludge micro-organisms.
- Mobility** : Reacts with water to produce carbon dioxide and polyurea solid.
- Persistence and degradability** : The polyurea produced on contact with water is insoluble, inert and non-biodegradable.
In air the predominant degradation process is predicted to be a relatively rapid OH radical attack, by calculation and by analogy with related isocyanates.
- Bioaccumulative potential** : Not expected to be bioaccumulative.
In a pond study with gross contamination, there was no evidence of bioaccumulation.
- Additional ecological information** : It is unlikely that significant environmental exposure in the air or water will arise.

13. Disposal considerations

Unused Product/waste from cleaning etc. : Dispose of in accordance with local and national regulations. Do not empty into drains, sewers or water courses. May be incinerated in a suitable facility provided local regulations are observed.
EC Waste Catalogue (EWC) code: 08 05 01 [Waste products from the Manufacture, Formulation, Supply and Use (MFSU) of paint and varnish. Waste isocyanates.]

Contaminated packaging : Partially filled containers shall be disposed of as for the product above.

Fill well drained containers with water and a little detergent, allow to stand for at least 24 hours. Dispose of as non-hazardous packaging waste in accordance with local and national regulations after removing/invalidating the warning label. Use EWC Code 150102 for plastic.

Untreated contaminated packaging to be disposed of as hazardous packaging waste. Use EWC Code 150110*.

14. Transport information

Not classified as hazardous for transport.

Other information:

Not dangerous cargo. Irritating to skin and mucous membranes. Avoid temperatures below 0 °C. Avoid heat above +50 °C. Keep dry. Keep away from foodstuffs, acids and alkalis.

15. Regulatory information

Classification according to EEC directive:

Symbols:



Harmful

R-phrases

- R20** : Harmful by inhalation.
- R36/37/38** : Irritating to eyes, respiratory system and skin.
- R42/43** : May cause sensitisation by inhalation and skin contact.

S-phrases

- S23** : Do not breathe vapour/spray.
- S38** : In case of insufficient ventilation, wear suitable respiratory equipment.
- S45** : In case of accident or if you feel unwell, seek medical advice immediately (show this label where possible).
- 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.

Special provisions statement : Contains isocyanates. See information supplied by the manufacturer.

Hazardous component(s) which must be listed on the label : Diphenyl methane diisocyanate, isomers and homologues

TRGS 905 classification (German regulations)

Diphenylmethane-4, 4'-diisocyanate CAS No. 101-68-8 (in the form of respirable aerosols, measured as the alveolar aerosol content) - Carcinogenic, category 3 (Deviation from the legal classification as per Annex 1 of Directive 67/548/EEC)

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 in sections 1 and 13 has changed. 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:-

Xn	:	Harmful
R20	:	Harmful by inhalation.
R36/37/38	:	Irritating to eyes, respiratory system and skin.
R42/43	:	May cause sensitisation by inhalation and skin contact.

The European Committee of Paint, Printing Ink and Artist's Colours Manufacturers' Associations (CEPE) provides the following information on coatings containing isocyanates:-
"Ready-to-use paints containing isocyanates may have an irritant effect on mucous membranes – especially on breathing organs – and cause hypersensitivity reactions. Inhalation of vapour or spray mist may cause sensitisation. When handling paints containing isocyanates all precautions required for solvent-containing paints must be followed. Vapour and spray mist in particular should not be inhaled. Persons who are allergic, asthmatic or prone to respiratory ailments should not work with isocyanate-containing paints."

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.
Take into account the Manual Handling regulations when dealing with the mixed product.

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.

Revision 2 Date Issued: 27th February 2007

1. Identification of the substance/preparation and company

Product Name: Flowcrete HF Cove Filler C

Application: Filler C component (sand/cement mixture) of a 3 pack polyurethane floor cove.
Mixed product is applied using a trowel.

Manufacturer:

Flowcrete UK Ltd., The Flooring Technology Centre, Booth Lane, Moston, Sandbach, Cheshire. CW11 3QF
Tel: +44 (0)1270 753000 Fax: +44 (0)1270 753333
E-mail: technical@flowcrete.com Website: <http://www.flowcrete.com>

2. Composition/information on constituents

Chemical Name	EINECS No.	CAS No.	% by weight	Symbols and Risk Phrases
Cement	270-659-9	68475-76-3	< 12	Xi; R41.
Hydrated Lime	215-137-3	1305-62-0	< 8	Xi; R38. R41.
Chromium (VI)	-	-	< 2 ppm	Xi; R43.
Silica Sand, Silicon dioxide	238-878-4	14808-60-7	> 80	None.
Respirable crystalline silica		14808-60-7	Trace	Xn; R48:R20

See section 16 Additional information, for full text regarding symbols and Risk phrases.

3. Hazards Identification

Risk of serious damage to eyes. The lime, calcium silicates and alkalis within the cement are partially soluble and when mixed with water will give rise to a potentially hazardous alkaline solution. The eyes are particularly vulnerable and damage will increase with contact time. Contact with wet cement/hydrated lime may cause irritation, dermatitis or burns. Contact between cement/hydrated lime powder and body fluids (e.g. sweat and eye fluid) may also cause skin and respiratory irritation, dermatitis or burns.

Contains Chromium (VI), a skin sensitiser, and may produce an allergic eczema reaction.

4. First Aid measures

- General Information** : In case of accident or you feel unwell, seek medical advice and take the relevant safety data sheets. Never give anything by mouth to an unconscious person.
- Inhalation** : If irritation occurs, move to fresh air. If nose or airways become inflamed seek medical advice.
- Skin contact** : Wash with soap and plenty of water before continuing.
If irritation, pain or other skin trouble occurs, seek medical advice.
Contaminated clothing should be removed and washed thoroughly before re-use.
- Eye Contact** : Hold eyelids apart and immediately flush with plenty of water for at least 15 minutes.
Seek medical advice immediately.
- Ingestion** : Wash out mouth with water and give patient plenty of water to drink..

5. Fire-fighting measures

This material is non-combustible and will not facilitate combustion with other materials.

6. Accidental release measures

- Personal precautions** : Use personal protective equipment as detailed in Section 8.
Ensure adequate ventilation.
- Environmental precautions** : Avoid the formation of dust clouds.
- Methods for cleaning up** : Sweep or preferably vacuum up and collect in suitable containers for disposal in accordance with Section 13.
Avoid creating a dust cloud, dampen with water if possible.
Addition of water may result in the product hardening in situ if not removed quickly.

7. Handling and storage

- Handling** : Provide sufficient air exchange and/or exhaust in work rooms. Avoid formation of dust cloud.
Ensure adequate ventilation. Use personal protective equipment as detailed in Section 8.
Handle and open container with care.
- Storage** : Store in a dry, cool, well-ventilated place.

8. Exposure controls/personal protection

Maximum exposure limit for Silica, respirable crystalline dust : 0.1mg/m³ 8hr TWA (8 hour time weighted average) (CHAN)

Occupational Exposure Standard for dust, Total inhalable dust : 10mg/m³ 8hr TWA
Respirable dust : 4 mg/m³ 8hr TWA

Engineering measures to reduce exposure : Local exhaust ventilation is recommended where dust is likely to be generated from the handling of dry material.

- Personal protective equipment** :
- Respiratory protection** : Dust respirator if the conditions are dusty.
Eye protection : Goggles or face shield.
Hand protection : Impervious gloves
Skin and body protection : Protective suit.
Protective measures : Use of the basic principles of Industrial Hygiene will enable this material to be used safely.

9. Physical and chemical properties

Appearance	: Granules/powder mix	pH	: ~11 - 14
Odour	: None	Relative Density	: Not determined.
Boiling Point	: Not applicable	Water solubility	: slight
Flashpoint	: Not applicable	Water miscibility	: Not applicable
Explosion limits	: No data		:
Vapour pressure	: Not applicable		:

10. Stability and reactivity

- Material is inert and stable.
Chromium VI content is not an issue for this material - Shelf life is 6 months.
- Conditions to avoid** : Not applicable
- Materials to avoid** : Not applicable
- Hazardous decomposition products** : None.

11. Toxicological information

- Inhalation** : May cause inflammation of the mucous membranes, an irritant to the respiratory tract at high concentrations.
- Ingestion** : The swallowing of small amounts is unlikely to cause any significant reaction. Larger doses may result in irritation of the gastro intestinal tract.
- Eye irritation** : Cements and hydrated lime are painful eye irritants. Mild exposure can cause soreness. Gross exposure or untreated mild exposures can lead to chemical burning and ulceration of the eye.
- Skin Irritation** : Cement and hydrated lime powder, especially in a water mix, may cause irritant contact dermatitis and or burns.
- Sensitisation** : The hexavalent chromium in the cement can lead to sensitisation of the skin. If sensitised, an allergic eczema will result upon contact with the skin. Control of the Chromium VI content is not an issue for this material, < 2 ppm from source, no reducing additives required.
- Long term toxicity** : High repeated exposures in excess of the OES have been linked with rhinitis and coughing. Skin exposure has been linked to allergic (chromium VI) dermatitis. Allergic dermatitis more commonly arises through contact with water mixtures than when dry.
- Further information** : In the UK, the HSE has issued a CHAN (Chemical Hazard Alert Notice 35) for respirable crystalline silica, with the recommendation that exposure levels be kept down to 0.1 mg/m³. Current evidence indicates that if workers are exposed regularly to 0.3mg/m³ there is a much greater risk of lung damage than had been previously thought.

Respirable crystalline silica dust may cause silicosis, a lung disease. Long term exposures to high levels of respirable crystalline silica can also lead to an increased risk of developing lung cancer.

12. Ecological information

- Ecotoxicity** : LC₅₀ aquatic toxicity not determined. The addition of cement and hydrated lime to water will raise the pH and may therefore be toxic to aquatic life in some circumstances.
- Mobility** : The product is not volatile and insoluble in water, will accumulate in the ground.
- Persistence and degradability** : Non biodegradable. The hydrated lime will react with atmospheric and dissolved carbon dioxide to form calcium carbonate (e.g. chalk).
- Bioaccumulative potential** : Not applicable.
- Additional ecological information** : High concentrations of hydrated lime in water (>100 mg/l) may have sterilising effect in sewage works.

13. Disposal considerations

- Unused Product/waste from cleaning etc.** : Dispose of in accordance with local and national regulations. EWC Code: 08 01 99 (Not a hazardous waste)
- Contaminated packaging** : Dispose as a non-hazardous packaging waste. Use EWC Code: 150101 for paper, 150102 for plastic.

14. Transport information

Not classified as hazardous for transport.

15. Regulatory information

Symbols:



Irritant

R-phrases

R41 : Risk of serious damage to eyes.

S-phrases

S22 : Do not breathe dust.
S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
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.

Special provisions statement : None.

Hazardous component(s) which must be listed on the label : Cement/Hydrated Lime.

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)
Construction Information Sheet No 26 (revision 2) CIS26(rev2) - Cement
Construction Information Sheet No 36 (revision 1) CIS36(rev1) - Silica
Chemical Hazard Alert Notice 35 – Respirable Crystalline Silica

Denmark: Kodenr 00-4 (1993).

16. Other Information

This safety data sheet has been prepared in accordance with 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:

Xn : Harmful Xi : Irritant

R38 : Irritating to skin.
R41 : Risk of serious damage to eyes.
R43 : May cause sensitisation by skin contact.
R48:R20 : Harmful : danger of serious damage to health by prolonged exposure through inhalation.

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.
Take into account the Manual Handling regulations when dealing with the mixed product.

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.

