

Version 3

Date revised: 2nd March 2010

conforms to Regulation (EC) no 1907/2006

1. Identification of the substance/preparation and company

Product Name: Flowshield LXP HD Base A

Application: Base A polyol component of a multi-pack polyurethane floor coating.
Mixed material is applied by roller, serrated trowel or squeegee.

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: ehs.uk@flowcrete.com

Website: <http://www.flowcrete.com>

2. Hazards Identification

Not classified as a hazardous product as per Council Directive 2006/121/EC or 1999/45/EC.

3. Composition/information on constituents

Contains a branched polyalcohol (polyol) with ester and ether groups.

May also contain other non-classified components - pigments, thixotropic agents, surfactants and additives.

4. First Aid measures

Inhalation : Remove from exposure – unlikely to occur because of the low volatility of the product.
If someone is affected, seek medical advice.

Skin contact : Wash with soap and plenty of water or a suitable skin cleanser as soon as possible.
Remove any contaminated clothing and launder before re-use.
Seek medical advice in cases of a skin reaction.

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. If any has been swallowed, seek medical advice.

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 carbon oxides, oxides of nitrogen 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 : 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.

Storage : Store in a dry, cool, well-ventilated place at 5 – 30°C. Keep container tightly closed.

8. Exposure controls/personal protection

There are no components with workplace exposure limits.

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

Personal protective equipment :

Respiratory protection : Not required.

Eye protection : Wear eye/face protection.

Hand protection : Impervious gloves, nitrile rubber probably gives the best resistance to the chemicals.

Skin and body protection : Overalls.

Protective measures : Use of the basic principles of Industrial Hygiene will enable this material to be used safely.

9. Physical and chemical properties

Appearance	: Liquid, colour on label	Relative Density	: 1.50 ± 0.05
Odour	: Almost odourless	Water solubility	: Insoluble
Boiling Point	: No data	Water miscibility	: none
Flashpoint	: >100°C		

10. Stability and reactivity

Conditions to avoid : None known.

Materials to avoid : None known.

Hazardous decomposition products : In a fire, carbon and nitrogen oxides with a trace of hydrogen cyanide.

11. Toxicological information

Acute toxicity : Polyol: LD₅₀ oral (rat) : >5,000 mg/kg

Irritation : Polyol: Primary skin irritation: (rabbit)
Result: non-irritant.
Primary mucosae irritation:(rabbit)
Result: non-irritant

Sensitisation : Polyol: Skin sensitization Result: no sensitisation by skin contact.

Genotoxicity : Polyol: Genotoxicity in vitro: Ames test
Result: negative Method: OECD Test Guideline 471

12. Ecological information

- Ecotoxicity** : Polyol:
Brachydanio rerio (96 hr) LC₀ : > 100 mg/l
Method: OECD Guideline for Testing of Chemicals, No. 203
Daphnia magna (48 hr) EC₅₀ : > 100 mg/l
Method: OECD Guideline for Testing of Chemicals, No.202
Bacteria (activated sludge) EC₅₀ : > 1,000 mg/l
Method: OECD Guideline for Testing of Chemicals, No.209
Algae (scenedesmus subspicatus) (72 hr) IC₅₀ : > 100 mg/l
Method: OECD Guideline for Testing of Chemicals, No.201
- Mobility** : Insoluble in water.
- Persistence and degradability** : Polyol: 12 % , i.e. not readily degradable
Method: OECD Guideline for Testing of Chemicals, No.301 D
- Additional ecological information** : Do not allow to escape into waterways, waste water or soil.

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.
Use EC Waste Catalogue (EWC) code: 080112 (not a hazardous waste).
- 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.
Remove/invalidate the warning label.
Use EWC Code 150102 for plastic, 150104 for metal.

14. Transport information

Not classified as hazardous for transport.

15. Regulatory information

- Classification according to EEC directive:** None
- Labelling:** No symbols.
- S-phrases** :
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** :
- 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.
Control of Substances Hazardous to Health Regs.
Environmental Protection (Duty of Care) Regs.
- 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

The text in sections 2, 3, 11, 12, 15 and 16 has changed.

This safety data sheet has been prepared in accordance with REACH.

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.

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 the hazardous nature of the Hardener and the protective measures required.

The material has been designed for application by roller, serrated trowel and/or squeegee - it is not recommended this material be sprayed. The isocyanates in the hardener are respiratory sensitisers and the engineering requirements to allow spraying would have to include total exclusion of all non spraying personnel and prevention of all overspray/vapour/fumes from escaping. It would not be acceptable from a safety viewpoint to allow any escape of the material because even small concentrations can cause asthma like attacks in sensitised persons.

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.

Version 2

Date Issued: 26th November 2010

conforms to Regulation (EC) no. 1907/2006

1. Identification of the substance/preparation and company

Product Name: **Flowshield LXP HD Hardener B**

Use: Hardener component of a 2 pack polyurethane floor coating. See the relevant technical data sheets for mixing and application instructions. For application by appropriately trained applicators.
Mixed product is applied by roller, serrated trowel and/or squeegee.

Uses advised against: Home DIY and spray applications.

Manufacturer:

Flowcrete UK Ltd., The Flooring Technology Centre, Booth Lane, Moston, Sandbach, Cheshire. UK. CW11 3QF

Tel: +44 (0)1270 753000 (Office hours 9 am to 5pm, Mon-Fri)

Fax: +44 (0)1270 753333

E-mail: ehs.uk@flowcrete.com

Website: <http://www.flowcrete.com>

2. Hazards Identification

2.1 Classification according to Directive DPD 1994/45/EC

Carcinogenic, Category 3. Limited evidence of a carcinogenic effect.

Xn Harmful. Harmful by inhalation.

Xn Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Xi Irritant. May cause sensitization by inhalation and skin contact.

Xi Irritant. Irritating to eyes, respiratory system and skin.

Label elements: Labelling to Regulation (EC) no 1907/2006

Hazardous components which must be listed on the label

diphenylmethane-diisocyanate isomers and homologues.

formaldehyde, oligomeric reaction products with aniline and phosgene.

Symbols:



Harmful

Contains diphenylmethane-diisocyanate isomers and homologues.
formaldehyde, oligomeric reaction products with aniline and phosgene.

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.
- R40** : Limited evidence of a carcinogenic effect.
- R48/20** : Harmful: danger of serious damage to health by prolonged exposure through inhalation.

S-phrases

- S23** : Do not breathe vapour/spray.
- S36/37** : Wear suitable protective clothing and gloves.
- S45** : In case of accident or if you feel unwell, seek medical advice immediately (show this label where possible).
- S60** : This material and its container must be disposed of as hazardous waste.

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

Other Hazards

PBT or vPvB: Does not meet the criteria (Regulation No 1207/2006, Annex XIII).

Workplace exposure limits for isocyanates, see section 8.

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.

Reacts with water forming CO₂. In closed containers, risk of bursting owing to increase of pressure.

3. Composition/information on ingredients

Type of product: Mixture. Polyisocyanate based on diphenylmethane diisocyanate.

Hazardous components

Chemical Name	EINECS No.	CAS No.	% by weight
diphenylmethane-diisocyanate isomers and homologues (MDI)	-	9016-87-9	50 - 75
formaldehyde, oligomeric reaction products with aniline and phosgene.	500-079-6	32055-14-4	25 - 50

diphenylmethane-diisocyanate isomers and homologues (MDI) -

GHS Classification:

Acute toxicity, Inhalative, Category 4 (H332). Skin irritation, Category 2 (H315). Eye irritation, Category 2 (H319).
Sensitization of the respiratory airways, Category 1 (H334). Sensitization of the skin, Category 1 (H317).
Carcinogenicity, Category 2 (H351). Specific target organ toxicity (single exposure), Category 3 (H335).
Specific target organ toxicity (repeated exposure), Category 2 (H373).

Classification to DSD (67/548/EEC)

Carc. Cat.3 R40, Xn R20, R42/43, R48/20, Xi R36/37/38.

formaldehyde, oligomeric reaction products with aniline and phosgene -

GHS Classification:

Acute toxicity, Inhalative, Category 4 (H332). Skin irritation, Category 2 (H315). Eye irritation, Category 2 (H319).
Sensitization of the respiratory airways, Category 1 (H334). Sensitization of the skin, Category 1 (H317).
Carcinogenicity, Category 2 (H351). Specific target organ toxicity (single exposure), Category 3 (H335).
Specific target organ toxicity (repeated exposure), Category 2 (H373).

Classification to DSD (67/548/EEC)

Carc. Cat.3 R40, Xn R20, R42/43, R48/20, Xi R36/37/38.

See section 16 for full text regarding symbols, risk phrases (R20 etc.) and hazard statements (H322 etc.)

4. First Aid measures

- General Advice** : Soiled, soaked clothing and shoes must be immediately removed, decontaminated and disposed of.
- Inhalation** : Take affected person into the fresh air and keep them warm, let them rest.
If there is difficulty in breathing, medical advice is required.
- 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.
Medical advice is required. Do not induce vomiting unless under medical supervision.
- Notes to physician** : The product irritates the respiratory tract and may trigger sensitisation of the skin and respiratory tract.
Treatment of acute irritation or bronchial constriction is primarily symptomatic. Extended medical treatment may be required depending on the degree of exposure and the severity of the symptoms.

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 monoxide, carbon dioxide, hydrogen cyanide, nitrogen oxides and isocyanate vapour.
- Special protective equipment for fire fighters** : Wear self-contained breathing apparatus and protective suit.
- Additional information** : Fire in the vicinity of chemical containers poses risk of pressure build-up and rupture. Containers at risk from fire should be cooled with water and, if possible, removed from the danger area. Reaction between water and hot isocyanate may be vigorous. 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. 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 a large leak. If any enters drains, flush away with copious amounts of water.
- 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 one hour. Shovel into suitable open-top containers, do not close container for at least 48 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, 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 in elevated concentrations, exhaust ventilation must be provided in such a way that the WEL (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. The precautions required in the handling of isocyanates must be taken. Avoid contact with skin and eyes and the inhalation of vapour. Keep away from foodstuffs, drinks and tobacco. Wash hands before breaks and at the end of the workday. Keep working clothes separately. Take off all contaminated clothing immediately.
- 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 5 – 35°C.

8. Exposure controls/personal protection

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

- Engineering measures to reduce exposure** : Ensure adequate ventilation, especially in confined areas.

Personal protective equipment :

- Respiratory protection** : Required in insufficiently ventilated working areas. An air-fed mask, or for short periods of work, a charcoal filter respirator.
- Eye protection** : Safety spectacles, goggles or full face shield.
- Hand protection** : Suitable materials for safety gloves; EN 374-3:
Polychloroprene - CR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.
Nitrile rubber - NBR: thickness $\geq 0,35\text{mm}$; breakthrough time $\geq 480\text{min}$.
Butyl rubber - IIR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.
Fluorinated rubber - FKM: thickness $\geq 0,4\text{mm}$; breakthrough time $\geq 480\text{min}$.
Recommendation: contaminated gloves should be disposed of.
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** : Wash hands before breaks and immediately after handling the product.
When using do not eat, drink or smoke.

9. Physical and chemical properties

Appearance	: brown liquid.	Viscosity	: typically 84 mPa's at 25°C
Odour	: earthy, musty	Relative Density	: approx. 1.23 at 20°C
Boiling Point	: > 200°C decomposes/polymerises	Water solubility	: immiscible, reacts to produce carbon dioxide and polyurea solid.
Flashpoint	: 220°C	Ignition temperature	: >500°C
Vapour pressure	: MDI <0.0001 mbar at 20°C (100Pa = 1 mbar)		

10. Stability and reactivity

Material is stable when stored and handled correctly.

- Conditions to avoid** : Avoid high temperatures. Do not allow to freeze.
- Possibility of hazardous reactions** : Exothermic reaction with amines, alcohols, bases and acids.
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 >200°C with evolution of carbon dioxide.

11. Toxicological information

- Acute toxicity** : diphenylmethane-diisocyanate, isomers and homologues
LD₅₀ Oral (rat) : >2000 mg/kg
LC₅₀ Inhalation (rat) = 490 mg/m³, 4 hr
Test substance: as aerosol
Concentration of the saturated vapour of 4,4-MDI at 25°C: 0.09 mg/m³
- formaldehyde, oligomeric reaction products with aniline and phosgene
LD₅₀ Oral (rat) : >2000 mg/kg
LC₅₀ Inhalation (rat) = 490 mg/m³, 4 hr
Test substance: as aerosol
Concentration of the saturated vapour of 4,4-MDI at 25°C: 0.09 mg/m³
- Skin irritation** : diphenylmethane-diisocyanate, isomers and homologues
rabbit - Result: irritating
Method: OECD Test Guideline 404. Toxicological studies of a comparable product.

Formaldehyde, oligomeric reaction products with aniline and phosgene

Rabbit - Result: irritating

Method: OECD Test Guideline 404. Toxicological studies of a comparable product.

- Sensitisation** : May cause sensitization by inhalation and skin contact. 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.
Animal studies have shown respiratory sensitisation can be induced by skin contact with known respiratory sensitisers, including isocyanates.
- Subacute, subchronic and prolonged toxicity:** : Long-term inhalation study of tech. diphenylmethane diisocyanate (PMDI) carried out using mechanically produced, inhalable PMDI aerosols. Aerodynamic diameter: 95 % below 5 µm
Concentrations: 0,2 ; 1,0 and 6,0 mg/m³ - Animal groups: 120 rats in each (60 female, 60 male)
Results after clinical and histopathological examination of the animals:
0,2 mg aerosols/m³: No irritation of the respiratory tract or lungs - "no effect level" (NOEL).
1,0 mg aerosols/m³: Slight irritation of and inflammatory changes to the nose, respiratory tract and lungs. No lung tumours.
6,0 mg aerosols/m³: More severe irritation of and chronic inflammatory changes to the nose, respiratory tract and lungs. Accumulation of a yellow substance in the lungs.
8 benign (statistically increased) and 1 malignant (statistically insignificant) lung tumours were found.
The overall increased incidence of lung tumours only in the group which received the highest concentration is closely attributed to the chronic irritation of and the inflammatory changes to the respiratory organs and to the accumulation of the yellow substance in the lungs of the animals .
- Carcinogenicity** : Carcinogenic, category 3, of particular concern when it is in the form of respirable aerosol e.g. when sprayed.
- Additional information** : At the recommended storage and handling conditions, the risk of inhalation of hazardous vapour or spray is considered to be small (Note: This does not apply if sprayed). 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.
Prolonged contact with the skin may cause tanning and irritant effects.
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.
Users of isocyanates may require health surveillance.

12. Ecological information

- Ecotoxicity** : Data not available on the product itself. Information for ingredients:

diphenylmethane-diisocyanate, isomers and homologues

Brachydanio rerio	LC ₀ : > 1000 mg/l	96 hour test
Daphnia	EC ₅₀ : > 1000 mg/l	24 hour test
Activated sludge	EC ₅₀ : > 100 mg/l	3 hour test

formaldehyde, oligomeric reaction products with aniline and phosgene

Brachydanio rerio	LC ₀ : > 1000 mg/l	96 hour test
Daphnia	EC ₅₀ : > 1000 mg/l	24 hour test
Activated sludge	EC ₅₀ : > 100 mg/l	3 hour test

- 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.

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. In the EU, use EC Waste Catalogue (EWC) code: 080501* (a hazardous waste).

Contaminated packaging : Partially filled containers shall be disposed as for the product above. Well drained containers to be disposed of as hazardous packaging waste. In the EU, use EWC Code 150110*.

14. Transport information

Not classified as dangerous goods for transport.

Other information:

Not dangerous cargo. Irritating to skin and mucous membranes. Avoid temperatures below +10°C. Avoid heat above +50°C. Keep dry. Keep away from foodstuffs, acids and alkalis.

15. Regulatory information

Water contaminating class (Germany): 1 slightly water endangering (in accordance with Annex 4 to the Directive on Water-Hazardous Substances)

Any existing national regulations on the handling of isocyanates must be observed.

EC Directives Dangerous Substances Directive, 67/548/EEC & adaptations.
Dangerous Preparations Directive, 1999/45/EC.
Safety Data Sheets Directive, 91/155/EEC and adaptations.
Classification, Labelling and Packaging of Substances and Mixtures (CLP Regulation) No. 1272/2008

UK Statutory Instruments Chemicals (Hazard Information & Packaging for Supply) Regs. (CHIP)
Control of Substances Hazardous to Health Regs. (COSHH)
Environmental Protection (Duty of Care) Regs.

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

UK Guidance Notes Workplace Exposure Limits EH40.
CHIP for Everyone HSG(228).

16. Other Information

The text has changed in sections 1, 2, 3, 4, 6, 8, 10, 11, 12, 13, 15 and 16 – put into REACH format with the revised classification, toxicological and ecological data, plus the addition of the GHS/CLP classification and labelling elements. This safety data sheet has been prepared in accordance with Regulation (EC) no 1907/2006.

UK 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.

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."

EC Directive 1907/2006 relating to the classification, packaging and labelling of dangerous substances and preparations – Classification(s) and Risk (R) phrase(s) referred to in this document:-

Carc. Cat 3 : Carcinogenic, Category 3. Xn : Harmful Xi : Irritant
R20 : Harmful by inhalation.
R36/37/38 : Irritating to eyes, respiratory system and skin.
R42/43 : May cause sensitisation by inhalation and skin contact.
R40 : Limited evidence of a carcinogenic effect.
R48/20 : 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.

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.

GHS Labelling - Labelling to Regulation (EC) no 1272/2008/CE

Hazardous components which must be listed on the label

diphenylmethane-diisocyanate isomers and homologues. CAS No. 9016-87-9
formaldehyde, oligomeric reaction products with aniline and phosgene. CAS No. 32055-14-4

Pictograms:



Signal word: **Danger**

Hazard Statements

H315 : Causes skin irritation.
H317 : May cause an allergic skin reaction.
H319 : Causes serious eye irritation.
H332 : Harmful if inhaled.
H334 : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 : May cause respiratory irritation.
H351 : Suspected of causing cancer.
H373 : May cause damage to organs (Respiratory organs) through prolonged or repeated exposure if inhaled.

Precautionary statements

P260 : Do not breathe vapours/ spray.
P280 : Wear protective gloves/ eye protection/ face protection.
P302 + P352 : IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 : IF exposed or concerned: Get medical advice/ attention.

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 1

Date Issued: 8th October 2008

conforms to Regulation (EC) no 1907/2006

1. Identification of the substance/preparation and company

Product Name: Flowshield LXP HD Filler C

Application: Sand blend for a 3 component floor product.

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: ehs.uk@flowcrete.com Website: <http://www.flowcrete.com>

2. Hazards Identification

Not classified as hazardous, possibility of dust generation on handling.
Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis.

3. Composition/information on constituents

Chemical Name	EINECS No.	CAS No.	% by weight	Symbols and Risk Phrases
Respirable crystalline silica (in silica sands)	-	14808-60-7	trace	Xn; R48;R20
Silica sands	238-878-4	14808-60-7	> 99	None

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

4. First Aid measures

- Inhalation** : If irritation occurs, move to fresh air.
- Skin contact** : Wash with soap and plenty of water.
- Eye Contact** : Hold eyelids apart and immediately flush with plenty of water for at least 15 minutes.
Seek medical attention.
- Ingestion** : Wash out mouth, do not swallow mouthwash.

5. Fire-fighting measures

This product is not flammable and will not facilitate combustion with other materials.

6. Accidental release measures

- Personal precautions** : Use personal protective equipment as detailed in Section 8.
- Methods for cleaning up** : Minimise generation of airborne dust. Shovel into suitable container.
Dispose in accordance with Section 13.

7. Handling and storage

- Handling** : Use personal protective equipment as detailed in Section 8.
Handle and open container with care, avoid creating dust.
- Storage** : Keep containers closed and store in a dry, cool, well-ventilated place.

8. Exposure controls/personal protection

Workplace Exposure Limit for dust, Total inhalable dust : 10mg/m³ 8h TWA (8 hour time weighted average)
Respirable dust : 4 mg/m³ 8h TWA

Workplace Exposure Limit for Silica, respirable crystalline dust : 0.1mg/m³ 8hr TWA (8 hour time weighted average)
If exposure cannot be controlled to 0.1 mg/m³ (8 hour TWA) or below by elimination or process or engineering controls, then exposure must be controlled by provision and use of suitable respiratory protective equipment.

Engineering measures to reduce exposure : N/A

Personal protective equipment :

Respiratory protection : Wear a particulate dust mask.

Eye protection : Goggles or face mask.

Skin and body protection : PVC gloves and overalls.

9. Physical and chemical properties

Appearance	: Sand granules	Relative Density	: 2.65
Odour	: None	Water solubility	: insoluble
Boiling Point	: Not applicable	Water miscibility	: Not applicable
Flashpoint	: Not applicable (not flammable)	Vapour pressure	: Not applicable
Explosion limits	: Not applicable		

10. Stability and reactivity

Material is stable when stored under normal dry conditions.

Conditions to avoid : None

Materials to avoid : None

Hazardous decomposition products : None

11. Toxicological information

Sands are not classified as hazardous in accordance with EC regulations.

Further information : Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica.

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However, it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated. (*IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.*)

In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore preventing the onset of silicosis will also reduce the cancer risk..." (*SCOEL SUM Doc 94-final, June 2003*).

There is a body of evidence supporting the fact that increased cancer risk would be limited to people already suffering from silicosis. According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits.

12. Ecological information

- Ecotoxicity** : LC₅₀ aquatic toxicity rating not determined.
- Biodegradation** : Resistant.
- Additional ecological information** : This is a non-volatile and insoluble material and will accumulate in the ground.

13. Disposal considerations

- Unused Product/waste from cleaning etc.** : Dispose unused material as builders waste, in accordance with local and national regulations.
Use EWC Code 080199, a non-hazardous waste.
- Contaminated packaging** : Treat as for unused material.

14. Transport information

Not classified as hazardous for transport.

15. Regulatory information

Classification according to EEC directive: **Not classified.** **Hazard Symbols - None**

S-phrases

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 : None.

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)
Respirable Crystalline Silica: Phase 1 (EH75/4)
Construction Information Sheet No 36 (revision 1) CIS36(rev1) - Silica

16. Other Information

The text in sections 2, 3, 8 and 11 has changed.
This safety data sheet has been prepared in accordance with REACH.
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

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 cleaning and disposal methods.

Notes

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.