

Version 1 Date Issued: 19<sup>th</sup> July 2013

### 1. Identification of the substance/preparation and company

**Product Name:** **Metallic Expressions Hardener B**

**Application:** Isocyanate component of poly urea floor coating system.

**Manufacturer:**

Flowcrete SA (Pty) Ltd, 176 Voortrekker Street, Jacobs, Durban 4052

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### 2. Hazards Identification

**Emergency Overview:**

**Routes of Entry:**

*Route Entry Risk*

|              |          |
|--------------|----------|
| Inhalation   | Possible |
| Ingestion    | Possible |
| Skin Contact | Possible |
| Eye Contact  | Possible |

**Potential Health Effects**

**Inhalation**

May cause nausea and respiratory tract irritation. May cause respiratory sensitization in susceptible individuals.

**Ingestion**

No significant signs or symptoms of any adverse health hazards.

**Skin Contact**

Product is a slight skin irritant. May Cause swelling and redness.

**Eye Contact**

Mild eye irritant. Vapors slightly uncomfortable. Splashes irritating and painful.

**Acute Health Hazards**

No information is available on the acute health hazards of this product. Based upon data from testing of similar products, no significant effects are expected.

**Chronic Health Hazards:**

If misted or at high concentrations, may cause pallor, nausea, anesthetic or narcotic effects.

**Medical Conditions**

Skin and eye sensitization. Depending on individual skin sensitivity, chronic or prolonged exposure may result

**Generally Aggravated by Exposure**

In irritation, blistering, burning and peeling of skin layers.

**Carcinogenicity**

OSHA: No data ACGIH: No data NTP: No data IARC: No data

### 3. Composition/information on constituents

| Chemical Name                   | CAS No.    | %    | OSHA PEL       | ACGIH TLV      |
|---------------------------------|------------|------|----------------|----------------|
| Aliphatic poly-isocyanate       | 28182-81-2 | >99  | Not determined | Not determined |
| Hexamethylene-1,6-di-isocyanate | 822-06-0   | <0.5 | Not determined | Not determined |

#### 4. First Aid measures

General Information: In case of accident or if you feel unwell, seek medical advice immediately. Bring the safety data sheet. Never give anything by mouth to an unconscious person.

- Inhalation** : Immediate fresh air, seek medical attention.
- Skin contact** : Wash off with plenty of water and soap.
- Eye Contact** : Remove any contact lenses. Wash the eyes with plenty of water with the eyelid held wide open. Seek medical attention.
- Ingestion** : If victim is conscious and alert, wash out mouth with water. Drink water. Do not induce vomiting or give anything by mouth to an unconscious person. Seek medical attention..

#### 5. Fire-fighting measures

- Suitable extinguishing media** : Foam/Carbon dioxide/Dry Chemical/Water fog
- Un-Suitable extinguishing media** : Water jet.
- Special exposure hazards** : Closed containers may rupture due to build-up of pressure when exposed to extreme heat.
- Special protective equipment** : Self contained breathing apparatus.
- Additional information** : Water spray should be used to cool containers.  
Do not allow washings to enter drains or water courses.

#### 6. Accidental release measures

- Personal precautions** : Avoid contact with skin and eyes. Use appropriate protection (see section 8).  
Keep unauthorized people away.
- Environmental precautions** : Avoid release to the environment. In the event of major spillage  
Immediately contact fire brigade and police.
- Method for cleaning up** : Collect spilled material. Absorb in sand or other inert material.  
After one hour the waste is collected in an open refuse bin.  
Keep the waste moist and place the bin open in a safe place for one to two weeks  
(Carbon dioxide is given off).  
Forward for disposal (see section 13).

#### 7. Handling and storage

- Handling** : Avoid contact with skin and eyes  
Do not breathe vapor. Do not spray, could cause harmful mist.  
For instruction for application, see separate product information
- Storage** : Keep container tightly closed and in a well-ventilated place. Keep container dry. Store between the following temperatures 41-95 °F (5-35 °C). Avoid temperatures below 32 °F (0 °C).

#### 8. Exposure controls/personal protection

- Engineering measures to reduce exposure** : Use only in well-ventilated areas.
- Respiratory protection** : In case of insufficient ventilation, wear suitable respiratory equipment

|                                 |  |
|---------------------------------|--|
| <b>Eye protection</b>           | : Safety goggles or face shield is recommended.<br>Eye wash facilities   |
| <b>Hand protection</b>          | : Impermeable gloves -<br>Butyl rubber [IIR], ( $\geq 0.5$ mm)<br>Fluorinated rubber [FKM], ( $\geq 0.40$ mm)<br>The gloves are only suitable for brief exposure. Check regularly for degradation and replace as necessary. Avoid skin contact with the wetted surfaces of the gloves. |
| <b>Skin and body protection</b> | : Protective suit and heavy duty work shoes.   |
| <b>Protective measures</b>      | : Handle in accordance with good industrial hygiene and safety practice.<br>Wash hands before breaks and immediately after handling the product.<br>Keep working clothes separate. When using do not eat, drink or smoke.  |

## 9. Physical and chemical properties

|                             |  |                          |                                    |
|-----------------------------|--|--------------------------|------------------------------------|
| Appearance                  | : Liquid, Clear/pale Yellow              | Percent Solids by Weight | : >99.5                            |
| Odour                       | : Slightly Musty                         | Water solubility         | : Insoluble in water @68°F (20°C). |
| Initial Boiling Point       | : 382°F                                  | Viscosity                | : 650-750 cPs                      |
| Flashpoint                  | : >200 °F (>93°C) (Pensky Marten Closed) |                          |                                    |
| Specific Gravity (water =1) | : 1.13 g/cm <sup>3</sup> (25 °C).        |                          |                                    |
| Vapour pressure (mmHg)      | : Approx. 5.2x10 <sup>-9</sup>           |                          |                                    |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Stability</b>                        | : Stable under recommended storage and handling conditions.<br>Could cause the container to bulge/leak if water ingress<br>Avoid excessive heat, open flame, sparks and strong oxidizing agents.<br>Replace outage with inert dry nitrogen. |
| <b>Hazardous decomposition products</b> | : Isocyanate vapors or mist, carbon dioxide, carbon monoxide, nitrogen oxides.  |
| <b>Incompatibility</b>                  | : Water, acid, base (alkalis, ammonia), alcohols, metal compounds.  |

## 11. Toxicological information

|                                    |   |
|------------------------------------|---|
| <b>Acute toxicity</b>              | : LD <sub>50</sub> oral rat: >10,000 mg/kg.   |
| <b>Acute toxicity – Dermal</b>     | : LD <sub>50</sub> dermal rabbit: >5000 mg/kg.  |
| <b>Acute toxicity – Inhalation</b> | : LC <sub>50</sub> inhalation: Lower Respiratory (Pulmonary) Irritant<br>LC 50 Value Range from 137-1150 MG/M3 were obtained in rats exposed to aerosols. (4H EXP.)<br>Severe irritant capable of inducing corneal injury (rabbit)<br>Maximum primary eye irritant score: 54.6/110 for 24 hour skin effects: Moderate and Dermal.<br>Primary dermal irritation score: 3.4/8.0 (rabbit).<br>Pulmonary and dermal sensitizer in animals and humans. |

## 12. Ecological information

|                               |         |
|-------------------------------|---------|
| <b>Ecological Information</b> | No data |
|-------------------------------|---------|

### 13. Disposal considerations

**Waste Disposal Method** : Use excess product in an alternate beneficial application. Dispose of according to current, local, state and federal regulation.

### 14. Transport information

**Proper shipping name:** Not classified as hazardous for Transport, all modes.

### 15. Regulatory information

|  |   |
|--|---|
| <b>US EPA TSCA Status</b>  | All chemical ingredients are listed on the TSCA inventory   |
| <b>Canada Domestic</b>   | All chemical ingredients are listed on the DSL  |
| <b>US Federal Regulations TSCA</b>                               | Section 12(b) Export Notification. This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States<br>There are no TSCA 12(b) Chemicals in this product.   |
| <b>Hazard Category CERCLA – SARA</b>                             | CERCLA section 103(a) specifically requires the person in charge of a vessel or facility to report immediately to the National Response Center (NRC) a release of a hazardous substance whose amount equals or exceeds the assigned RQ.<br>The following hazardous substances are contained in this product |
| <b>SARA Title III (Superfund amendments reauthorization act)</b> | This product has been reviewed according to the EPA and 'Hazard Categories' promulgated under Section 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) and is considered under applicable definitions, to meet the following categories                             |
| <b>311/312 Hazard Categories</b>                                 | Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard: See Section 3   |
| <b>313 Reportable Ingredients</b>                                | This product contains the following substances subject to the reporting requirements of Section 313 of Title III the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: Chemical Name- See Section 2   |

### 16. Other Information

This product is used together with Flowseal Ultra Base A. Base A and Hardener B react while developing heat. Complete curing time is 5-7 days. For instructions for application, see separate product information. See also separate safety data sheet for comp B.

#### HMIS Ratings

|                            |   |
|----------------------------|---|
| <b>Health</b>              | 2 |
| <b>Flammability</b>        | 1 |
| <b>Physical Hazard</b>     | 1 |
| <b>Personal protection</b> | G |

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

### **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.