

**SAFETY DATA SHEET****Foster® 81-84B**

Version 1.2

Revision Date 08/07/2024

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Foster® 81-84B  
Product code : 100000015355

**Manufacturer or supplier's details**

Company : H.B. Fuller Construction Products

Address : 1105 South Frontenac  
Aurora, IL, 60504

Telephone : 1-800-552-6225

Medical Emergency Phone Number (24 Hours): 1-888-853-1758

Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300

**Recommended use of the chemical and restrictions on use**

Recommended use : Curing agent

Restrictions on use : For industrial use only.

**SECTION 2. HAZARDS IDENTIFICATION****Emergency Overview**

|            |                |
|------------|----------------|
| Appearance | liquid         |
| Color      | brown          |
| Odor       | characteristic |

**GHS Classification**

Acute toxicity (Inhalation) : Category 3  
Skin irritation : Category 2  
Eye irritation : Category 2A  
Respiratory sensitization : Category 1  
Skin sensitization : Category 1  
Specific target organ toxicity - single exposure : Category 3 (Respiratory system)  
Specific target organ toxicity - repeated exposure : Category 2  
Specific target organ toxicity - repeated exposure (Inhalation) : Category 2 (Respiratory Tract)

**GHS label elements**

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Hazard pictograms : 

Signal Word : Danger

#### Hazard Statements:

H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H331 Toxic if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H373 May cause damage to organs through prolonged or repeated exposure. H373 May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled.

#### Precautionary Statements:

**Prevention:** P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. P264 Wash skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing must not be allowed out of the workplace. P280 Wear protective gloves/ eye protection/ face protection. P285 In case of inadequate ventilation wear respiratory protection.

**Response:** P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor. P362 Take off contaminated clothing and wash before reuse.

**Storage:** P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up.

**Disposal:** P501 Dispose of contents/ container to an approved waste disposal plant.

#### Potential Health Effects

Inhalation : Vapors/fumes may be irritating at application temperatures.

Skin : Contact with hot product will cause thermal burns.

Aggravated Medical Condition : None known.

#### Carcinogenicity:

**IARC** No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP** No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

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**Hazardous ingredients**

| Chemical name                       | CAS-No.    | Concentration [%] |
|-------------------------------------|------------|-------------------|
| 4,4'-Methylenediphenyl diisocyanate | 101-68-8   | 50 - 70           |
| Polymethylene polyphenyl isocyanate | 9016-87-9  | 50 - 70           |
| methylenediphenyl diisocyanate      | 26447-40-5 | 30 - 50           |

Actual concentration is withheld as a trade secret

**SECTION 4. FIRST AID MEASURES**

- General advice : Show this material safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.  
If symptoms persist, call a physician.
- In case of skin contact : Wipe molten product from skin as much as possible. Allow product to cool. Do not peel solidified product from skin.  
Loosen product from skin with mineral oil and mild abrasion.
- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- If swallowed : Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this SDS.
- Notes to physician : Use mineral oil to soften and loosen product for removal.

**SECTION 5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : Do NOT use water jet.
- Specific hazards during fire fighting : Burning produces irritant fumes.
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.  
 Methods and materials for containment and cleaning up : Allow to solidify.  
 Scrape up.  
 Shovel into suitable container for disposal.

#### SECTION 7. HANDLING AND STORAGE

Advice on safe handling : No special precautions are needed in handling this material. Avoid breathing vapors/fumes of heated product. Prevent contact with molten product.  
 Conditions for safe storage : Keep in a dry, cool place.  
 Materials to avoid : No special restrictions on storage with other products.

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Ingredients with workplace control parameters

| Components                          | CAS-No.  | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis     |
|-------------------------------------|----------|-------------------------------|--|-----------|
| 4,4'-Methylenediphenyl diisocyanate | 101-68-8 | TWA                           | 0.005 ppm<br>0.05 mg/m <sup>3</sup>            | NIOSH REL |
|                                     |          | C                             | 0.02 ppm<br>0.2 mg/m <sup>3</sup>              | OSHA Z-1  |
|                                     |          | C                             | 0.2 ppm<br>0.2 mg/m <sup>3</sup>               | NIOSH REL |
|                                     |          | TWA                           | 0.005 ppm                                      | ACGIH     |
|                                     |          | C                             | 0.02 ppm<br>0.2 mg/m <sup>3</sup>              | OSHA P0   |
|                                     |          | TWA                           | 0.005 ppm<br>0.05 mg/m <sup>3</sup>            | NIOSH REL |
|                                     |          | C                             | 0.02 ppm<br>0.2 mg/m <sup>3</sup>              | NIOSH REL |
|                                     |          | PEL                           | 0.005 ppm<br>0.051 mg/m <sup>3</sup>           | CAL PEL   |
|                                     |          | C                             | 0.02 ppm<br>0.2 mg/m <sup>3</sup>              | OSHA Z-1  |
|                                     |          | C                             | 0.02 ppm<br>0.2 mg/m <sup>3</sup>              | OSHA P0   |
|                                     |          | TWA                           | 0.005 ppm<br>0.05 mg/m <sup>3</sup>            | NIOSH REL |
|                                     |          | C                             | 0.02 ppm                                       | NIOSH REL |

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|  |  |     |                         |         |
|--|--|-----|-------------------------|---------|
|  |  |     | 0.2 mg/m <sup>3</sup>   |         |
|  |  | PEL | 0.005 ppm               | CAL PEL |
|  |  |     | 0.051 mg/m <sup>3</sup> |         |

**Engineering measures** : At the application temperature, use of local exhaust over the premelting reservoir is encouraged.

#### Personal protective equipment

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Filter type : Combined particulates and organic vapor type

Hand protection

Material : Nitrile rubber

Remarks : When handling hot material, use heat resistant gloves.

Eye protection : Safety glasses

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid  
 Color : brown  
 Odor : characteristic  
 Odor Threshold : no data available  
 pH : Not applicable  
 Boiling point/boiling range : is not determined  
 Flash point : 200 °C  
 Evaporation rate : is not determined  
 Flammability (solid, gas) : Not classified as a flammability hazard

Upper explosion limit : Upper flammability limit is not determined  
 Lower explosion limit : Lower flammability limit is not determined

Vapor pressure : is not determined  
 Relative vapor density : is not determined  
 Density : 10.3 lb/gal  
 Solubility(ies)  
 Water solubility : insoluble  
 Partition coefficient: n-octanol/water : no data available

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|                          |  |
|--------------------------|--|
| Autoignition temperature | : is not determined  |
| Thermal decomposition    | : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). |
| Viscosity                |  |
| Viscosity, kinematic     | : Not applicable   |

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**SECTION 10. STABILITY AND REACTIVITY**

|                                    |  |
|------------------------------------|--|
| Reactivity                         | : Container can be pressurized by carbon dioxide due to reaction with humid air and/or water.  |
| Chemical stability                 | : The product is chemically stable.  |
| Possibility of hazardous reactions | : Hazardous polymerization does not occur.   |
| Hazardous decomposition products   | : In case of incomplete combustion an increased formation of oxides of nitrogen (NO <sub>x</sub> ) is to be expected.<br>Thermal decomposition can lead to release of irritating gases and vapors.<br>Humid air and/or water will produce carbon dioxide which will pressurize the container.<br>Stable under normal conditions. |

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**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity****Product:**

|                           |  |
|---------------------------|--|
| Acute inhalation toxicity | : Acute toxicity estimate : 1 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Method: Calculation method |
|---------------------------|--|

**Components:****4,4'-Methylenediphenyl diisocyanate:**

|                           |   |
|---------------------------|---|
| Acute inhalation toxicity | : Acute toxicity estimate : 1.5 mg/l<br>Test atmosphere: dust/mist<br>Method: Expert judgment |
|---------------------------|---|

**Polymethylene polyphenyl isocyanate:**

|                           |   |
|---------------------------|---|
| Acute inhalation toxicity | : LC50 Rat: 0.49 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist |
|---------------------------|---|

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**methylenediphenyl diisocyanate:**

Acute inhalation toxicity : Acute toxicity estimate : 1.5 mg/l  
Test atmosphere: dust/mist  
Method: Calculation method

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**STOT-single exposure**

No data available

**STOT-repeated exposure**

No data available

**Aspiration toxicity**

No data available

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential****Components:****methylenediphenyl diisocyanate :**

Partition coefficient: n- : log Pow: 4.5  
octanol/water

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**Mobility in soil**

No data available

**Other adverse effects**

No data available

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Dispose of in an approved landfill. Consult your state, local or provincial authorities and your local waste vendor for more restrictive requirements. The hazard and precautionary statements displayed on the label also apply to any residues left in the container.

**SECTION 14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Domestic regulation****49 CFR**

Not regulated as a dangerous good

**SECTION 15. REGULATORY INFORMATION**

**SARA 311/312 Hazards** : Acute toxicity (any route of exposure)  
Respiratory or skin sensitization  
Specific target organ toxicity (single or repeated exposure)  
Skin corrosion or irritation  
Serious eye damage or eye irritation



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**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

Polymethylene polyphenyl isocyanate 9016-87-9

**Clean Air Act**

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

4,4'-Methylenediphenyl diisocyanate 101-68-8

**US State Regulations**

**California Prop 65** : Please contact Supplier for more information.

**The ingredients of this product are reported in the following inventories:**

|              |   |
|--------------|---|
| <b>TCSI</b>  | On the inventory, or in compliance with the inventory         |
| <b>TSCA</b>  | All substances listed as active on the TSCA inventory         |
| <b>AIIC</b>  | On the inventory, or in compliance with the inventory         |
| <b>DSL</b>   | All components of this product are on the Canadian DSL        |
| <b>ENCS</b>  | On the inventory, or in compliance with the inventory         |
| <b>ISHL</b>  | On the inventory, or in compliance with the inventory         |
| <b>KECI</b>  | On the inventory, or in compliance with the inventory         |
| <b>PICCS</b> | On the inventory, or in compliance with the inventory         |
| <b>IECSC</b> | On the inventory, or in compliance with the inventory         |
| <b>NZIoC</b> | Not in compliance with the inventory                          |
| <b>CHINV</b> | The mixture contains substances listed on the Swiss Inventory |
| <b>REACH</b> | Not in compliance with the inventory                          |
| <b>MYINV</b> | Not in compliance with the inventory                          |
| <b>KKDIK</b> | Not in compliance with the inventory                          |
| <b>TECI</b>  | On the inventory, or in compliance with the inventory         |

**Inventories Legend**TSCA (USA), DSL (Canada), REACH(Europe), AIIC (Australia), NZIoC (New Zealand), ENCS (Japan), KECI (Korea), PICCS (Philippines), IECSC (China), TWINV (Taiwan)

**SECTION 16. OTHER INFORMATION**

Prepared by: Global Regulatory Office - phone: 1-651-236-5842 - email: msds.request@hbfuller.com

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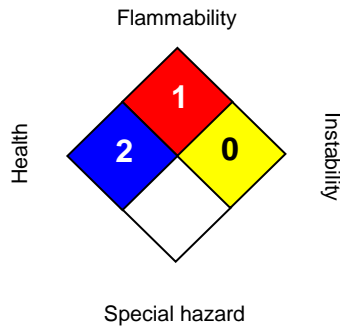
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#### Further information

##### NFPA:



##### HMIS III:

|                        |           |
|------------------------|-----------|
| <b>HEALTH</b>          | <b>2*</b> |
| <b>FLAMMABILITY</b>    | <b>1</b>  |
| <b>PHYSICAL HAZARD</b> | <b>0</b>  |

0 = not significant, 1 =Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

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