

SAFETY DATA SHEET**H.B. Fuller® FH-3530-A**

Version 1.4

Revision Date 10/19/2017

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : H.B. Fuller® FH-3530-A
Product code : 100000002978

Manufacturer or supplier's details

Company : H.B. Fuller Company
Address : 1200 Willow Lake Boulevard
Vadnais Heights, MN 55110
Telephone : 1-888-423-8553

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 : Isocyanate based product
Restrictions on use : For industrial use only.

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

| | |
|------------|-----------|
| Appearance | liquid |
| Color | colorless |
| Odor | sweet |

GHS Classification

Skin irritation : Category 2
Eye irritation : Category 2A
Respiratory sensitization : Category 1
Skin sensitization : Category 1

GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements:

H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary Statements:

Prevention: P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. P264 Wash skin thoroughly after handling. P272 Contaminated work clothing must not be allowed out of the workplace. P280

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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 + P341 IF INHALED: If breathing is difficult, remove person to fresh air and keep 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. 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.

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

Potential Health Effects

Aggravated Medical Condition : None known.
Symptoms of Overexposure : Breathing difficulties

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

Hazardous ingredients

| Chemical name | CAS-No. | Concentration [%] |
|--|--------------|-------------------|
| Hydrogenated MDI-based isocyanate prepolymer | Not Assigned | 70 - 90 |
| 4,4'-methylenedicyclohexyl diisocyanate | 5124-30-1 | 10 - 20 |

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 : Wash off with soap and water.
Get medical attention if irritation develops and persists.
Take off contaminated clothing and shoes immediately.
Wash contaminated clothing before re-use.

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- 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. If conscious, give 2 glasses of water. Get immediate medical attention.
- Most important symptoms and effects, both acute and delayed : Breathing difficulties

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Specific hazards during fire fighting : Burning produces irritant fumes.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- 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 : Soak up with inert absorbent material. Shovel into suitable container for disposal. Neutralize with the following product(s): Ammonia

SECTION 7. HANDLING AND STORAGE

- Local/Total ventilation : Use only with adequate ventilation.
- Advice on safe handling : Protect from moisture. Avoid inhalation, ingestion and contact with skin and eyes.
- Materials to avoid : No special restrictions on storage with other products.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Ingredients with workplace control parameters**

| Ingredients | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible | Basis |
|-------------|---------|----------------------------------|----------------------------------|-------|
|-------------|---------|----------------------------------|----------------------------------|-------|

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| | | | concentration | |
|---|-----------|-----|--------------------------------------|---------|
| 4,4'-methylenedicyclohexyl diisocyanate | 5124-30-1 | TWA | 0.005 ppm | ACGIH |
| | | C | 0.01 ppm 0.11 mg/m ³ | OSHA P0 |
| | | PEL | 0.005 ppm 0.054 mg/m ³ | CAL PEL |

Engineering measures : Use local exhaust ventilation or other engineering controls to minimize exposures.

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Hand protection
Material : Nitrile rubber

Eye protection : Safety glasses with side-shields

Hygiene measures : Avoid contact with skin, eyes and clothing.
Provide adequate ventilation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
Color : colorless
Odor : sweet
Odor Threshold : No data available
No data available

Melting point/freezing point : not determined
not determined

Initial boiling point and boiling range : not determined
not determined

Flash point : 149 °C
Evaporation rate : not determined
not determined

Flammability (solid, gas) : Not classified as a flammability hazard
Not classified as a flammability hazard

Upper explosion limit : Upper flammability limit

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| | |
|--|--|
| | not determined |
| Lower explosion limit | : Lower flammability limit not determined |
| Density | : 8.910 lb/gal |
| Solubility(ies) | |
| Water solubility | : not determined |
| | not determined |
| Partition coefficient: n-octanol/water | : No data available |
| | No data available |
| Autoignition temperature | : not determined |
| | not determined |
| Viscosity | |
| Viscosity, dynamic | : not determined |
| Viscosity, kinematic | : not determined |
| | not determined |

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. |
| Incompatible materials | : Amines Strong acids and strong bases |
| Hazardous decomposition products | : Stable under normal conditions. |

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

| | |
|---------------------------|--|
| Acute oral toxicity | : Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method |
| Acute inhalation toxicity | : Acute toxicity estimate : 21.93 mg/l Exposure time: 4 h Test atmosphere: vapor Method: Calculation method |

Ingredients:

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5124-30-1:

Acute oral toxicity : LD50 Oral Rat: 1,065 mg/kg

Acute inhalation toxicity : LC50 Rat: 0.434 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist**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****Ingredients:****5124-30-1 :**Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): 1.2 mg/l
Exposure time: 96 h
Test Method: static test**Persistence and degradability**

No data available

Bioaccumulative potential

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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. Disposal via incineration at an approved facility is recommended, as industry best practice. Consult state, local or provincial authorities for more restrictive requirements.

SECTION 14. TRANSPORT INFORMATION**Special precautions for user**

Remarks : 49CFR: Not dangerous goods in non-bulk packaging.

Domestic regulation**49 CFR**

UN/ID/NA number : 3082
Proper shipping name : Other regulated substances, liquid, n.o.s.
(4,4'-DICYCLOHEXANEDIISOCYANATE)
Class : 9
Packing group : III
Labels : 9
ERG Code : 171
Marine pollutant : no

International Regulations**UNRTDG**

Not regulated as a dangerous good

IATA-DGR

UN/ID No. : 3334
Proper shipping name : Aviation regulated liquid, n.o.s.
(4,4'-DICYCLOHEXANEDIISOCYANATE)
Class : 9
Packing group : III
Labels : 9
Packing instruction (cargo) : 964

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aircraft)
Packing instruction : 964
(passenger aircraft)

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.

SECTION 15. REGULATORY INFORMATION**SARA 311/312 Hazards** : Acute Health Hazard**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

4,4'-methylenedicyclohexyl 5124-30-1
diisocyanate

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

US State Regulations

California Prop 65 This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

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

| | |
|--------------|--|
| TSCA | On TSCA Inventory |
| DSL | This product contains one or several components that are not on the Canadian DSL nor NDSL. |
| REACH | Not in compliance with the inventory |
| AICS | Not in compliance with the inventory |
| NZIoC | Not in compliance with the inventory |
| ENCS | Not in compliance with the inventory |
| KECI | Not in compliance with the inventory |
| PICCS | Not in compliance with the inventory |
| IECSC | Not in compliance with the inventory |
| TWINV | Not in compliance with the inventory |

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

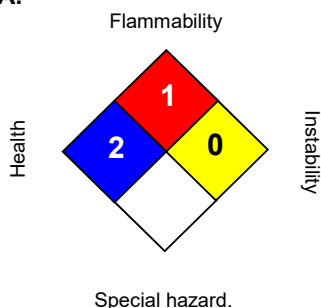
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SECTION 16. OTHER INFORMATION

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

Further information
NFPA:

HMIS III:

| | |
|------------------------|-----------|
| HEALTH | 2* |
| FLAMMABILITY | 1 |
| PHYSICAL HAZARD | 0 |

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

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