

GenFlex Roofing Systems

Material Safety Data Sheet

Material Name: Low Rise Insulation Adhesive

February 5, 2008

*** Section 1 - Chemical Product and Company Identification ***

Product Use: Adhesive

Manufacturer Information

GenFlex Roofing Systems, LLC
250 West 96th Street
Indianapolis, IN 46260

Phone: 317-575-7190 (Non-Emergency)

Emergency # 1-800-424-9300 (CHEMTREC)

International # 1-703-527-3887 (CHEMTREC)

General Comments

NOTE: CHEMTREC telephone number is to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to customer service.

*** Section 2 - Hazards Identification ***

Emergency Overview

This product is supplied in the form of an amber to off-white viscous liquid. Toxic fumes and gases may be released during combustion. Contact may cause irritation to eyes and skin as well as allergic contact dermatitis. Inhalation of vapors of uncured product may produce respiratory tract irritation and allergic respiratory sensitization reactions.

Potential Health Effects: Eyes

This product and its vapors may cause irritation to the eyes. Symptoms include redness, swelling, tearing and blurred vision.

Potential Health Effects: Skin

This product may cause irritation to the skin. This product may cause an allergic skin reaction. Prolonged or repeated contact with this product may blister, redden, dry and/or defat the skin.

Potential Health Effects: Ingestion

Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Potential Health Effects: Inhalation

This product is harmful by inhalation. This product may cause irritation to the respiratory system. Excessive inhalation of vapors may cause wheezing, difficulty in breathing, tightness in the chest, headache, insomnia, fever, malaise, nausea, sore throat and diarrhea. This product may also induce occupational asthma and cause allergic respiratory sensitization reactions.

HMIS Ratings: Health: 2* Fire: 1 Reactivity: 0 Pers. Prot.: chemical goggles and impervious gloves

(Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard)

*** Section 3- Composition / Information on Ingredients ***

CAS #	Component	Approx. Percent
Not Available	Polyurethane Polymer	65-99
39310-05-9	Diphenylmethane diisocyanate (homopolymer)	5-10
101-68-8	Methylene bisphenol isocyanate (MDI)	1-5
26447-40-5	1,1'-Methylenebis (isocyanato-) benzene	<1

Component Information/Information on Non-Hazardous Components

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

*** Section 4 - First Aid Measures ***

First Aid: Eyes

In case of contact with eyes, rinse immediately with plenty of water and seek immediate medical advice.

First Aid: Skin

For skin contact, flush with large amounts of water. If irritation persists, get medical attention.

First Aid: Ingestion

If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting unless instructed to do so by medical personnel.

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First Aid: Inhalation

If inhaled, remove immediately to fresh air. If symptoms develop or persist, seek immediate medical attention.

***** Section 5 - Fire Fighting Measures *****

Flash Point: >300°F (148°C)

Upper Flammable Limit (UFL): Not determined

Auto Ignition: Not determined

Rate of Burning: Not determined

General Fire Hazards

Irritating and toxic gases or fumes may be released during a fire. This product can react when exposed to higher than normal temperatures.

Hazardous Combustion Products

Hydrocyanic acid, isocyanates, oxides of nitrogen, carbon monoxide, carbon dioxide, and low molecular weight hydrocarbons.

Extinguishing Media

Dry chemical, carbon dioxide, foam. Use water to cool fire-exposed containers and to protect personnel.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus.

NFPA Ratings: Health: 2 Fire: 1 Reactivity: 0

(Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe)

***** Section 6 - Accidental Release Measures *****

Containment Procedures

Stop the flow of material, if this is without risk. Contain the discharged material. Eliminate all sources of ignition or flammables that may come into contact with a spill of this material.

Clean-Up Procedures

Absorb spilled material with nonflammable inert absorbent. Do not allow the spilled product to enter public drainage system or open water courses. Wear appropriate protective equipment and clothing during clean-up. Ventilate the contaminated area. Thoroughly wash the area with water after a spill or leak clean-up.

Evacuation Procedures

Keep unnecessary personnel away. Keep upwind of the spilled material and isolate exposure.

Special Procedures

None.

***** Section 7 - Handling and Storage *****

Handling Procedures

Do not breathe fumes or vapors from this product. Do not get this material in your eyes, on your skin, or on your clothing.

Use this product with adequate ventilation. Keep this product from heat, sparks, or open flame. Wash thoroughly after handling. As with all chemicals, good industrial hygiene practices should be followed when handling this material.

Storage Procedures

Keep this material in a cool, well-ventilated place. Eliminate all sources of ignition.

***** Section 8 - Exposure Controls / Personal Protection *****

Exposure Guidelines

A: General Product Information

Follow all applicable exposure limits.

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B: Component Exposure Limits

Methylene bisphenol isocyanate (MDI) (101-68-8)

ACGIH: 0.005 ppm TWA
OSHA: C 0.02 ppm; C 0.2 mg/m³
NIOSH: 0.05 mg/m³ TWA; 0.005 ppm TWA
C 0.2 mg/m³; C 0.020 ppm (10 min)

Engineering Controls

Use local exhaust ventilation. Explosion proof exhaust devices should be used.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear chemical goggles; face shield (if splashing is possible).

Personal Protective Equipment: Skin

Use impervious gloves. Use of protective coveralls and long sleeves is recommended.

Personal Protective Equipment: Respiratory

If ventilation is not sufficient to effectively remove vapors and fumes, appropriate NIOSH/MSHA respiratory protection must be provided.

Personal Protective Equipment: General

Use good industrial hygiene practices in handling this material.

*** Section 9 - Physical & Chemical Properties ***

Appearance:	Amber to off-white	Odor:	Negligible
Physical State:	Viscous Liquid	pH:	Not available
Vapor Pressure:	Not available	Vapor Density:	Not available
Boiling Point:	Not available	Melting Point:	Not available
Solubility (H₂O):	Not available	Specific Gravity:	0.98
Freezing Point:	Not available	Weight % Volatile:	<15
		Flash Point:	>300° F (148° C)

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

Stable under normal conditions.

Chemical Stability: Conditions to Avoid

Keep away from ignition sources and incompatible materials.

Incompatibility

Avoid contact with water, acids and bases, alcohols, and metal compounds.

Hazardous Decomposition

Hydrocyanic acid, isocyanates, oxides of nitrogen, carbon monoxide, carbon dioxide, and low molecular weight hydrocarbons.

Hazardous Polymerization

Hazardous polymerization will not occur.

*** Section 11 - Toxicological Information ***

Acute Toxicity

A: General Product Information

No data available for product.

Isocyanates, in general, are irritating to eyes, skin, mucous membranes and respiratory system.

MDI is an allergic respiratory sensitizer and can induce occupational asthma and decrease pulmonary function with certain exposures causing wheezing, chest tightness, cough, malaise, nausea, sore throat and diarrhea. MDI may also produce allergic skin sensitization reaction including swelling, itching, redness and defatting of the skin.

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B: Component Analysis - LD50/LC50

Methylene bisphenol isocyanate (MDI) (101-68-8)

Inhalation LC50 Rat : 178 mg/m³

Oral LD50 Rat : 9200 mg/kg

Oral LD50 Mouse : 2200 mg/kg

Carcinogenicity

A: General Product Information

No data available for product.

B: Component Carcinogenicity

Methylene bisphenol isocyanate (MDI) (101-68-8)

IARC: Monograph 71, 1999; Supplement 7, 1987; Monograph 19, 1979 (Group 3 (not classifiable))

Epidemiology

No data available for product.

Neurotoxicity

No data available for product.

Mutagenicity

No data available for product.

MDI was mutagenic in the Ames Salmonella microsome assay.

Teratogenicity

No data available for product.

Other Toxicological Information

None.

***** Section 12 - Ecological Information *****

Ecotoxicity

No data available for this product. It would be expected that this product would produce toxicity to aquatic organisms and ecosystems upon exposure.

Environmental Fate

No data is available concerning environmental fate, biodegradation or bioconcentration for this product. Isocyanates may react rapidly with water or moist soils to form a hard crust of water insoluble materials which act to increase their environmental persistence.

***** Section 13 - Disposal Considerations *****

US EPA Waste Number & Descriptions

A: General Product Information

Waste should be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

***** Section 14 - Transportation Information *****

US DOT Information

Shipping Name: Not Regulated.

Hazard Class: None

UN/NA #: None

Packing Group: None

Required Label(s): None

International Transportation Regulations

No additional information.

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*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

No additional information.

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Methylene bisphenol isocyanate (MDI) (101-68-8)

SARA 313: form R reporting required for 1.0% de minimis concentration; (Listed under ""Diisocyanates"")

CERCLA: final RQ = 5000 pounds (2270 kg)

State Regulations

A: General Product Information

Other state regulations may apply. Check individual state requirements.

Other Regulations

A: General Product Information

No additional information.

B: Component Analysis – Inventory

Component	CAS #	TSCA	DSL	EINECS
Diphenylmethane diisocyanate (homopolymer)	39310-05-9	Yes	Yes	No
Methylene bisphenol isocyanate (MDI)	101-68-8	Yes	Yes	Yes
1,1'-Methylenebis (isocyanato-) benzene	26447-40-5	Yes	Yes	Yes

C: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Methylene bisphenol isocyanate (MDI)	101-68-8	0.1%; English Item 663; French Item 717

*** Section 16 - Other Information ***

Date of Previous MSDS: April 2, 2007

Changes Since Previous MSDS: Section 1 – Product name change and company address change.

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration

*** Disclaimer ***

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