

# GenFlex Roofing Systems Material Safety Data Sheet

Material Name: GenFlex® Iso and GenFlex® Tapered Iso

January 18, 2008

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

**Product Use:** Insulation

**Manufacturer Information**

GenFlex Roofing Systems, LLC  
250 West 96<sup>th</sup> 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**

WARNING Product is in the form of a yellow-to-tan foam board. Under normal conditions of use, this product is not expected to create any unusual health or emergency hazards. Cutting, sawing grinding or fabrication of this product may create dusts. Breathing dust from this product may cause a scratchy throat, congestion, and slight coughing. Getting dust on the skin or in the eyes may cause irritation. Possible CANCER HAZARD contains carbon black which may cause cancer based on animal data.

**Potential Health Effects: Eyes**

Exposure to dusts can cause mild irritation. Irritation symptoms can include burning, tearing, redness, and swelling.

**Potential Health Effects: Skin**

Exposure to dusts may cause mild skin irritation. Symptoms may include dryness and redness of the skin.

**Potential Health Effects: Ingestion**

Ingestion of dusts is not expected to be a likely route of exposure. However, ingestion of large quantities of dust may cause obstruction of the gastrointestinal tract, nausea, and vomiting.

**Potential Health Effects: Inhalation**

Inhalation of dusts may irritate the respiratory tract. Symptoms may include sneezing, coughing, and difficulty breathing. Severe exposure may cause pneumoconiosis. Chronic inhalation of dusts may cause lung disease (e.g., emphysema, bronchitis, and fibrosis).

**HMIS Ratings: Health: 1\* Fire: 1 Reactivity: 0**

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

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

CAS #	Component	Approx. Percent
9063-78-9	Polyisocyanurate foam	10-90
9004-34-6	Cellulose	<26
Not Available	Glass filaments	0-30
1717-00-6	Hydrofluorocarbon	<10
1333-86-4	Carbon black	Not Available

**Component Information/Information on Non-Hazardous Components**

This product has been determined to be an "article", meeting the established in 29CFR1910.1200(b)(6)(v) and does not pose a physical hazard and/or health risk under normal conditions of use.

## \*\*\* Section 4 - First Aid Measures \*\*\*

**First Aid: Eyes**

In case of contact with eyes, rinse immediately with plenty of water for 15 minutes and seek medical advice.

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## 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.

## First Aid: Inhalation

Remove subject to fresh air. If irritation persists or if breathing is difficult get immediate medical attention.

## First Aid: Notes to Physician

Provide general supportive measures and treat symptomatically.

## \*\*\* Section 5 - Fire Fighting Measures \*\*\*

**Flash Point:** Not available

**Method Used:** Not applicable

**Upper Flammable Limit (UFL):** Not available

**Lower Flammable Limit (LFL):** Not available

**Auto Ignition:** Not available

**Flammability Classification:** Non-combustible

**Rate of Burning:** Not available

## General Fire Hazards

Material may be prone to smolder longer than wood after flames have been extinguished.

## Hazardous Combustion Products

Irritating and toxic gases or fumes may be released during a fire.

## Extinguishing Media

Water fog

## Fire Fighting Equipment/Instructions

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

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

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

## \*\*\* Section 6 - Accidental Release Measures \*\*\*

## Containment Procedures

Isolate the material and wet down lightly with water. Prevent runoff of any cleanup water into surface waters or storm sewers with absorbent pads or booms. When cleaning spill, wear appropriate personal protective equipment. Avoid generating dusty conditions. The use of a dust suppressant agent or water is recommended to control the creation of airborne dusts and thereby reduce the risk of a fire and/or explosion.

## Clean-Up Procedures

Shovel the material into waste container. If it cannot be reused, place in covered container for disposal. Dispose of all material in accordance with local, state and federal regulations. (see Section 13)

## Evacuation Procedures

Evacuation should not be necessary.

## Special Procedures

No information available.

## \*\*\* Section 7 - Handling and Storage \*\*\*

## Handling Procedures

Avoid breathing dusts from this material. Use of high speed rotary cutting tools may create excessive dusts. Avoid dust inhalation through adequate ventilation and the use of respiratory protection.

## Storage Procedures

Keep this material in a cool, well-ventilated place.

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

### Exposure Guidelines

#### A: General Product Information

Follow all applicable exposure limits.

#### B: Component Exposure Limits

##### Cellulose (9004-34-6)

ACGIH: 10 mg/m<sup>3</sup> TWA

OSHA: total dust: 15 mg/m<sup>3</sup> TWA; respirable fraction: 5 mg/m<sup>3</sup> TWA

NIOSH: total: 10 mg/m<sup>3</sup> TWA; respirable dust: 5 mg/m<sup>3</sup> TWA

##### Carbon black (1333-86-4)

ACGIH: 3.5 mg/m<sup>3</sup> TWA

OSHA: 3.5 mg/m<sup>3</sup> TWA

NIOSH: 0.1 mg PAH's/m<sup>3</sup> [carbon black in presence of polycyclic aromatic hydrocarbons (PAHs)];  
NIOSH Potential Occupational Carcinogen - see Appendix A; see Appendix C for  
supplementary exposure limits

### Engineering Controls

Use general ventilation.

### PERSONAL PROTECTIVE EQUIPMENT

#### Personal Protective Equipment: Eyes/Face

Wear dust goggles.

#### Personal Protective Equipment: Skin

Not normally required. Work gloves can protect skin from contact with dusts, mechanical irritation or chapping.

#### Personal Protective Equipment: Respiratory

Respiratory protection not normally required. If airborne contaminant levels may exceed recommended exposure limits, NIOSH approved respiratory protection appropriate for employee exposure levels is recommended. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.1 requirements must be followed whenever workplace conditions warrant a respirator's use.

#### Personal Protective Equipment: General

Use good industrial hygiene practices in handling this material.

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

**Appearance:** Yellow-to-tan foam board  
**Physical State:** Solid  
**Vapor Pressure:** Not available  
**Boiling Point:** Not available  
**Solubility (H<sub>2</sub>O):** Not available

**Odor:** Odorless  
**pH:** Not available  
**Vapor Density:** Not available  
**Melting Point:** Not available  
**Specific Gravity:** 0.25-0.45  
**Flash Point:** Not Available

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

### Chemical Stability

This is a stable material.

#### Chemical Stability: Conditions to Avoid

Avoid generation of dusts.

#### Incompatibility

Cellulose is incompatible with bromine, fluoride, fluorine, hydrogen peroxide, perchlorates, and perchloric acid.

#### Hazardous Decomposition

Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.

#### Hazardous Polymerization

Hazardous polymerization will not occur.

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## \*\*\* Section 11 - Toxicological Information \*\*\*

### Acute Toxicity

#### A: General Product Information

This product is a mixture for which no toxicological data exists. When available, toxicological data for the product's hazardous ingredients are provided below for relevant routes of exposure.

Chronic inhalation or overexposure to cellulose dust can produce chronic inflammatory effects. Exposure to high concentrations of nuisance dusts can cause lung overload. Nuisance dusts do not have the ability to induce lung tumors if lung overload is prevented. If overload is present, inflammation may cause tumors as an indirect mechanism. If clearance mechanism is exceeded, persistent lung inflammation can occur.

Chronic exposure to high levels of carbon or carbon black can result in the accumulation of particles in the lungs with chronic bronchitis, and an obstructive-like condition. With this type of pneumoconiosis, emphysema can sometimes be present. Other effects include collagen deposition, epithelial cell proliferation and metaplasia. Carbon black can accumulate in the skin following chronic exposure, producing a tattooing effect called anthracosis, which consists of black follicular dots. Chronic skin exposure to carbon particulate can result in the clogging of the hair follicles, rendering them black. It can aggravate pre-existing lung conditions such as emphysema.

There is no evidence that polyisocyanurate foam dust causes disease in man. Although one animal study has reported lung cancer following exposure to high levels of dust, subsequent animal studies have not showed that result. Emphysema has been produced in animals following exposure to high levels of dust. Polyisocyanurate foam may release wood dust when cut. Risk of a rare form of nasal cancer has been associated with wood dust exposure.

Wood products can be contaminated with a saprophytic fungi (alternaria species) that when inhaled can cause hypersensitivity pneumonitis, an allergic condition that can lead to chronic disease and irreversible pulmonary damage. This fungi has been detected in wood pulp, and is believed to have caused lung disease in lumber mill workers. Also, reduced pulmonary function has been reported by some observers in workers who have been exposed to excessive levels of wood dust for prolonged periods of time, however these results have not been found consistently across all studies.

No chronic health effects are known to be associated with exposure to continuous filament fiber glass. Results from epidemiological studies have not shown any increases in respiratory disease of cancer. IARC classified continuous filament fiber glass as a Group 3 substance, not classifiable as to its carcinogenicity. Continuous filament fiber glass is not considered respirable because of its large fiber diameter.

#### B: Component Analysis - LD50/LC50

##### Cellulose (9004-34-6)

Inhalation LC50 Rat : >5800 mg/m<sup>3</sup>/4H

Oral LD50 Rat : >5 gm/kg

Dermal LD50 Rabbit : >2 gm/kg

##### Hydrofluorocarbon (1717-00-6)

Inhalation LC50 Rat : 56700 ppm/6H

Inhalation LC50 Mouse : 151 gm/m<sup>3</sup>/2H

Oral LD50 Rat : >5 gm/kg

Dermal LD50 Rabbit : >2 gm/kg

##### Carbon black (1333-86-4)

Oral LD50 Rat : >15400 mg/kg

Dermal LD50 Rabbit : >3 gm/kg

### Carcinogenicity

#### A: General Product Information

No carcinogenicity data available for this product.

Carbon black, an ingredient in this product, is listed as possibly carcinogenic to humans (Group 2B) based on inadequate evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in animals.

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**B: Component Carcinogenicity**

**Carbon black (1333-86-4)**

ACGIH: A4 - Not Classifiable as a Human Carcinogen

OSHA: Monograph 65, 1996

{IARC - Group 2B (Possibly carcinogenic to humans)}

IARC: Monograph 65, 1996 (Group 2B (Possibly carcinogenic to humans))

NIOSH: occupational carcinogen

**Chronic Toxicity**

No information available.

**Epidemiology**

No data available for this product.

**Neurotoxicity**

No information available.

**Mutagenicity**

No information available.

**Teratogenicity**

No information available.

**Other Toxicological Information**

None available.

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

**Ecotoxicity**

No data available for this product.

**Environmental Fate**

No data available for this product.

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

**US EPA Waste Number & Descriptions**

**A: General Product Information**

Product, as shipped, is not a hazardous waste. No components are identified as hazardous wastes. 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:** This product is not regulated by DOT.

**Hazard Class:** Not applicable

**UN/NA #:** Not applicable

**Packing Group:** Not applicable

**Required Label(s):** Not applicable

**\*\*\* Section 15 - Regulatory Information \*\*\***

**US Federal Regulations**

**A: General Product Information**

No additional information.

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## 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).

### Hydrofluorocarbon (1717-00-6)

SARA 313: form R reporting required for 1.0% de minimis concentration

## State Regulations

### A: General Product Information

No information available.

### B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Cellulose	9004-34-6	No	No	Yes	Yes	No	Yes
Carbon black	1333-86-4	Yes	No	Yes	Yes	Yes	Yes

## Other Regulations

### A: General Product Information

None

### B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Polyisocyanurate foam	9063-78-9	Yes	Yes	No
Cellulose	9004-34-6	Yes	Yes	Yes
Hydrofluorocarbon	1717-00-6	Yes	No	No
Carbon black	1333-86-4	Yes	Yes	Yes

## C: Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

### \*\*\* Section 16 - Other Information \*\*\*

Date of Previous MSDS: April 3, 2007

Changes Since Previous MSDS: Section 1 – 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; NFPA = National Fire Protection Association; HMIS = Hazardous Material Identification System; CERCLA = Comprehensive Environmental Response, Compensation and Liability Act; SARA = Superfund Amendments and Reauthorization Act

### \*\*\* Disclaimer \*\*\*

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