

GenFlex Roofing Systems Material Safety Data Sheet

Material Name: Wood Fiber Roof Insulation

February 5, 2008

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

Product Use: Insulation

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

Product is in the form of a brown fiberboard. 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 Pers. Prot.:

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

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

CAS #	Component	Approx. Percent
9004-34-6	Cellulose	<95
9005-84-9	Starch	<9
Not Available	Lamination adhesive	<3.5
Not Available	Wax	1
Not Available	Clay	1
1333-86-4	Carbon black	1

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Nuisance particulates.

Component Information/Information on Non-Hazardous Components

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

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***** 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.

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.

***** 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/m³ TWA

OSHA: total dust: 15 mg/m³ TWA; respirable fraction: 5 mg/m³ TWA

NIOSH: total: 10 mg/m³ TWA; respirable dust: 5 mg/m³ TWA

Starch (9005-84-9)

ACGIH: inhalable particulate: 10 mg/m³ TWA; respirable particulate: 3 mg/m³ TWA (These values are for particulate matter containing no asbestos and <1% crystalline silica) (related to Particulates not otherwise classified (PNOC))

OSHA: total dust: 15 mg/m³ TWA; respirable fraction: 5 mg/m³ TWA (related to Particulates not otherwise regulated)

NIOSH: see Appendix D (related to Particulates not otherwise regulated)

Clay (Not Available)

ACGIH: inhalable particulate: 10 mg/m³ TWA; respirable particulate: 3 mg/m³ TWA (These values are for particulate matter containing no asbestos and <1% crystalline silica) (related to Particulates not otherwise classified (PNOC))

OSHA: total dust: 15 mg/m³ TWA; respirable fraction: 5 mg/m³ TWA (related to Particulates not otherwise regulated)

NIOSH: see Appendix D (related to Particulates not otherwise regulated)

Carbon black (1333-86-4)

ACGIH: 3.5 mg/m³ TWA

OSHA: 3.5 mg/m³ TWA

NIOSH: 0.1 mg PAH's/m³ [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.

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

Appearance:	Brown fiberboard; black one side	Odor:	Odorless
Physical State:	Solid	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:	0.25-0.45
		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, 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.

*** 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.

Starch is a mild skin irritant. It can aggravate pre-existing lung conditions such as emphysema. Starch has been associated with allergic skin reactions.

Most types of clay contain some alumina and quartz. Clay is irritating to the eyes and respiratory tract with dust exposure. Direct contact may cause skin irritation and possibly dermatitis. Chronic inhalation to clay dusts has been shown to cause pneumoconiosis. Depending on the type of clay, (especially its silica content), pneumoconiosis may be benign or fatal as with kaolin dust exposure.

B: Component Analysis - LD50/LC50

Cellulose (9004-34-6)

Inhalation LC50 Rat : >5800 mg/m³/4H

Oral LD50 Rat : >5 gm/kg

Dermal LD50 Rabbit : >2 gm/kg

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Carbon black (1333-86-4)

Oral LD50 Rat : >15400 mg/kg

Dermal LD50 Rabbit : >3 gm/kg

Carcinogenicity

A: General Product Information

No data available for this product, similar product, or product ingredients.

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. An ingredient of this product contains small amounts of formaldehyde. Formaldehyde is listed as a carcinogen by OSHA, as a probable human carcinogen by IARC (Group 2A), and as an anticipated human carcinogen by NTP.

B: Component Carcinogenicity

Carbon black (1333-86-4)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

NIOSH: occupational carcinogen

IARC: Monograph 65; 1996 (Group 2B (sufficient animal data))

Epidemiology

No data available for this product.

Neurotoxicity

No data available for this product, similar product, or product ingredients.

Mutagenicity

No data available for this product, similar product, or product ingredients.

Teratogenicity

No data available for this product, similar product, or product ingredients.

Other Toxicological Information

None available.

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

No data available for this product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

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.

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.

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*** 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

None

B: Component Analysis

None of this products components are listed under, or present in a quantity requiring reporting under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

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
Cellulose	9004-34-6	Yes	Yes	Yes
Starch	9005-84-9	Yes	Yes	Yes
Carbon black	1333-86-4	Yes	Yes	Yes

C: TSCA 12(b) Export Notification

This material has no components listed.

D: Component Analysis - WHMIS IDL

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

Component	CAS #	Minimum Concentration
Carbon black	1333-86-4	1% item 309 (1271)

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***** Section 16 - Other Information *****

Date of Previous MSDS: April 3, 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; 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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