

GenFlex Roofing Systems

Material Safety Data Sheet

Material Name: Ace Coating, White

February 4, 2008

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

Product Use: Coating

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)

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 a non-flammable pigmented liquid. This product may be harmful or fatal if swallowed. Ingestion can cause sore throat, gastrointestinal irritation, nausea, vomiting and diarrhea. Irritating and toxic gases or fumes may be released during a fire. This product is irritating to the eyes, respiratory system and skin.

Potential Health Effects: Eyes

This product 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 be harmful if it is absorbed through the skin.

Potential Health Effects: Ingestion

This product may be harmful or fatal if swallowed. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Swallowing large volumes of ethylene glycol can lead to kidney damage. Cases of unconsciousness and death have been reported following an ethylene glycol intoxication.

Potential Health Effects: Inhalation

Inhalation of vapors may cause irritation of the respiratory tract. Excessive inhalation of this product may cause headache, dizziness, blurred vision, nausea and vomiting. Exposure to high concentrations of vapor may cause central nervous system depression. Exposure to vapors or mists may cause damage to the kidneys, liver, lungs and blood.

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

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

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

CAS #	Component	Percent
Trade Secret	Fire retardant	22-38
13463-67-7	Titanium dioxide	0-9
1314-13-2	Zinc oxide	0-8
107-21-1	Ethylene glycol	0-8

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

Immediately flush eyes with plenty of water for at least 15 minutes. If irritation develops, seek medical attention.

First Aid: Skin

For skin contact, wash with soap and water. If irritation develops, seek medical attention.

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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

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

First Aid: Notes to Physician

Ethanol may be a useful antidote following ethylene glycol ingestion. Physicians should evaluate each case to determine the best method of treatment.

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

Flash Point: 240° F (115 ° C)

Method Used: Not available

Upper Flammable Limit (UFL): Not available

Lower Flammable Limit (LFL): 3%

Auto Ignition: Not available

Flammability Classification: Non-flammable

Rate of Burning: Not available

General Fire Hazards

This product is combustible at high temperatures. Highly toxic fumes and gases will be released upon combustion. Empty containers may retain product residue including Flammable or Explosive vapors. Do not cut, drill, grind, or weld near full, partially full, or empty product containers.

Hazardous Combustion Products

Upon combustion the product may yield smoke, fumes, carbon monoxide, carbon dioxide and other low molecular weight hydrocarbons.

Extinguishing Media

Dry chemical, foam, carbon dioxide, water fog. 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 Other:

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

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

Containment Procedures

Contain by any means necessary. 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. Ventilate the contaminated area. Thoroughly wash the area with water after a spill or leak clean-up.

Evacuation Procedures

Evacuate the area promptly. Keep upwind of the spilled material and isolate exposure.

Special Procedures

No information available.

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

Handling Procedures

Do not breathe gas/fumes/vapor/spray. Use this product with adequate ventilation. Do not get this material in your eyes, on your skin, or on your clothing. Wash thoroughly after handling. Keep this product from heat, sparks, or open flame.

Storage Procedures

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

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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

Titanium dioxide (13463-67-7)

ACGIH: 10 mg/m³ TWA

OSHA: total dust: 10 mg/m³ TWA

NIOSH: NIOSH Potential Occupational Carcinogen - see Appendix A

Ethylene glycol (107-21-1)

ACGIH: aerosol: 100 mg/m³

OSHA: C 50 ppm; C 125 mg/m³

NIOSH: no established RELs - see Appendix D

Zinc oxide (1314-13-2)

ACGIH: fume: 5 mg/m³ TWA; dust: 10 mg/m³ TWA (The value for Zinc oxide 'dust' is for total dust containing no asbestos and < 1% crystalline silica)

fume: 10 mg/m³ STEL

OSHA: fume: 5 mg/m³ TWA; total dust: 10 mg/m³ TWA; respirable fraction: 5 mg/m³ TWA

fume: 10 mg/m³ STEL

NIOSH: fume/dust: 5 mg/m³ TWA

10 mg/m³ STEL

C 15 mg/m³ (dust)

Engineering Controls

Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces. Special care must be taken to avoid inhalation exposure when using this product at high temperatures.

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 and prevent buildup of dusts or processing fumes, appropriate NIOSH approved respirator must be provided.

Personal Protective Equipment: General

Use good industrial hygiene practices in handling this material.

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

Appearance:	White liquid.	Odor:	Slightly musty
Physical State:	Liquid	pH:	Not available
Vapor Pressure:	Not available	Vapor Density:	>1 (Air = 1)
Boiling Point:	212 °F-401°F	Melting Point:	Not available
Solubility (H₂O):	Partly Soluble	Specific Gravity:	1.42
Evaporation Rate:	<1 (Butyl Ether = 1)	Percent Volatile:	31%
VOC:	16.49 gm/L	Flash Point	240° (115°C)

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

Chemical Stability

Stable under normal conditions.

Chemical Stability: Conditions to Avoid

Avoid open flame and excessive temperatures. Keep away from ignition sources and incompatible materials.

Incompatibility

This product may react with strong acids, strong bases and oxidizing agents. Avoid extreme heat which can result in thermal decomposition releasing toxic gases.

Hazardous Decomposition

Upon decomposition this product may yield smoke, fumes, carbon monoxide, carbon dioxide and other low molecular weight hydrocarbons.

Hazardous Polymerization

Hazardous polymerization will not occur.

*** Section 11 - Toxicological Information ***

Acute Toxicity

A: General Product Information

No information available for the product. Vapors may be irritating to the skin, eyes and respiratory system. Ingestion of ethylene glycol can cause kidney and liver damage, metabolic acidosis, and pulmonary edema.

B: Component Analysis - LD50/LC50

Ethylene glycol (107-21-1)

Inhalation LC50 Rat : 10876 mg/kg

Oral LD50 Rat : 4700 mg/kg

Oral LD50 Mouse : 5500 mg/kg

Dermal LD50 Rabbit : 9530 uL/kg

Zinc oxide (1314-13-2)

Inhalation LC50 Mouse : 2500 mg/m³

Oral LD50 Mouse : 7950 mg/kg

Carcinogenicity

A: General Product Information

No information available for the product. A weak association between occupational exposure to titanium dioxide and bladder cancer has been reported.

B: Component Carcinogenicity

Titanium dioxide (13463-67-7)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

NIOSH: occupational carcinogen

IARC: Monograph 47; 1989 (Group 3 (not classifiable))

Ethylene glycol (107-21-1)

ACGIH: A4 - not classifiable as a human carcinogen

Epidemiology

No information available for this product. The majority of reported ethylene glycol fatalities are due to kidney failure.

Neurotoxicity

No information available for this product. Ethylene glycol causes central nervous system effects such as irregular eye movements, headache, tremors, drowsiness, coma and convulsions. In the late stages of toxicity cranial nerves have been affected, causing bilateral facial paralysis, diminished hearing and difficulty swallowing.

Mutagenicity

No information available for the product.

Teratogenicity

No information available for the product. Ethylene glycol causes birth defects in laboratory animals. No human data is available.

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*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

No information available for product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Ethylene glycol (107-21-1)

LC50 (96 hr) rainbow trout: 41000 mg/L. Cond: 20 degrees C.; LC50 (96 hr) bluegill: 27,500-41,000 mg/L.; LC50 (96 hr) goldfish: 27,500-41,000 mg/L.; LC50 (48 hr) water flea: 46,300 mg/L.; EC50 (30 min) Photobacterium phosphoreum: 620.0 mg/L Microtox test.

Environmental Fate

No information available for the product.

*** 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.

Additional Info.: None.

*** 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).

Ethylene glycol (107-21-1)

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

State Regulations

A: General Product Information

Other state regulations may apply. Check individual state requirements. This product may contain trace amounts (<0.1%) of formaldehyde (50-00-0).

B: Component Analysis - State

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

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Component	CAS #	CA	FL	MA	MN	NJ	PA
Titanium dioxide	13463-67-7	No	No	Yes	Yes	Yes	Yes
Ethylene glycol	107-21-1	Yes	Yes	Yes	Yes	Yes	Yes
Zinc oxide	1314-13-2	Yes	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

Other Regulations

A: General Product Information

No additional information.

B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Titanium dioxide	13463-67-7	Yes	Yes	Yes
Ethylene glycol	107-21-1	Yes	Yes	Yes
Zinc oxide	1314-13-2	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
Ethylene glycol	107-21-1	1% item 716 (860)
Zinc oxide	1314-13-2	1% item 1717 (1326)

*** Section 16 - Other Information ***

Date of Previous MSDS: April 3, 2007

Changes Since Previous MSDS: Section 1 – Company address change and product name 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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