

GenFlex Roofing Systems Material Safety Data Sheet

December 15, 2010

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SECTION 1: PRODUCT IDENTIFICATION

Product Name:	GenSplice™ Adhesive
Chemical Name / Synonym:	None
Chemical Family:	Mixture
24-Hour Emergency Phone:	(800) 424-9300 CHEMTREC
Manufacturer's Name:	GenFlex Roofing Systems, LLC
Manufacturer's Address:	250 West 96 th Street, Indianapolis, IN 46260
NFPA Hazard Rating:	Health 2, Flammability 3, Reactivity 0
HMS Hazard Rating:	Health 2, Flammability 3, Reactivity 0

SECTION 2: CHEMICAL COMPOSITION

Chemical Name:	Common Name:	CAS #:	% (by wt)	Exposure Limits:
Toluene	Toluol	108-88-3	46.4	PEL 200 ppm OSHA CEIL 300 ppm TLV 20 ppm
Hexane	None	110-54-3	18.9	PEL 500 ppm TLV 50 ppm (skin)
Xylene	Xylol	1330-20-7	5.3	PEL 100 ppm TLV 100 ppm ACGIH STEL 150 ppm
Polyisocyanate	None	28182-81-2	1.8	None Established
Nonhazardous as per 29 CFR 1910.1200.	None	None	27.6	None Established

SECTION 3: HAZARD IDENTIFICATION

Primary Route of Exposure:	Skin absorption, Inhalation
Signs and Symptoms of Exposure:	Eye contact may cause severe eye irritation, redness, tearing and blurred vision. Prolonged or repeated skin contact may cause irritation, dermatitis and drying of the skin. Absorption through intact skin may contribute to an individual's overall exposure. Inhalation may cause respiratory system irritation and central nervous system depression (narcosis) characterized by headache, dizziness, muscular weakness and fatigue. Inhalation of Toluene vapors above 200 ppm may result in impairment of coordination, increased reaction time and a bad taste in the mouth. May cause unconsciousness if exposure is excessive. Toluene LC ₅₀ : 8,000 ppm/4hr, rat; Polyisocyanate LC ₅₀ : <1,150 mg/m ³ , rat; Xylene LC ₅₀ : 5,000 ppm/4hr, rat; Toluene LD ₅₀ : 5 g/kg, rat; HDI LD ₅₀ : 10 g/kg, rat; Xylene LD ₅₀ : 4.3 g/kg, rat.
Medical Conditions Aggravated by Exposure:	Exposure to this product may aggravate pre-existing skin and respiratory diseases. Individuals with neurological diseases should avoid exposure to hexane. Individuals, who are sensitized to isocyanates, and those with pre-existing lung diseases or conditions, including non-specific bronchial

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Chronic Effects:	hyperactivity or asthma, must avoid all exposure to Isocyanates. Toluene exposures have caused birth defects in laboratory animals when exposures were at concentrations that harmed the pregnant animal. The relevance of these findings to humans is uncertain.
Carcinogenicity:	May cause kidney, liver, spleen and central nervous system damage. Acute or chronic overexposure to isocyanates may cause sensitization in some individuals, resulting allergic symptoms of the lower respiratory tract (asthma-like), including wheezing, shortness of breath and difficulty breathing. May cause brain cell and neuromuscular damage based upon animal studies. IARC classifies toluene as a class 3, <i>unclassifiable as to carcinogenicity to humans</i> . IARC classifies xylene as a class 3, <i>unclassifiable as to carcinogenicity to humans</i> .

SECTION 4: FIRST AID MEASURES

First Aid Procedures:	If this material contacts the eyes, hold eyelids open and flush immediately with a gentle stream of water for at least 15 minutes, preferably at an eyewash fountain. Get medical attention. In case of skin contact, clean with rubbing alcohol first, followed immediately by washing affected area with soap and water. In case of inhalation, remove to fresh uncontaminated air. Administer oxygen if breathing is labored. Give artificial respiration if breathing has stopped. Get medical attention immediately if oxygen or artificial respiration are administered. In case of accidental ingestion, do not induce vomiting. Get medical attention and advise the physician of the nature of the material.
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SECTION 5: FIRE FIGHTING PROCEDURES

Suitable Extinguishing Media:	Foam, water spray, (fog), carbon dioxide, dry chemical, and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this product. Water may be ineffective, but should be used to keep fire-exposed containers cool. If a leak or spill has ignited, use water to disperse the vapors and to protect men attempting to stop a leak. Water spray may be used to flush spills away from exposures.
Hazardous Combustion Products:	Carbon dioxide, carbon monoxide, aldehydes, trace amounts of cyanides, acrid smoke and irritating fumes.
Recommended Fire Fighting Procedures:	Wear impermeable protective clothing and self-contained breathing apparatus. Toxic fumes and vapors may be evolved. Minimize the breathing of gases, vapors, fumes or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.
Unusual Fire and Explosion Hazards:	This product is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode.

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SECTION 6: PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled:	Shut off and eliminate all ignition sources. Keep people away. Recover free product. Add sand, earth or other suitable absorbent to spill area. Minimize breathing vapors. Minimize skin contact. Ventilate confined spaces. Open all windows and doors. Keep product clear of sewers, water, or extensive land areas. Assure conformity with applicable government regulations. Continue to observe precautions for volatile, flammable vapors from absorbed material.
Precautions to Be Taken in Handling and Storing:	Keep away from heat, sparks, and open flames. Keep containers closed. Vapors of this material are heavier than air and will collect in low or confined areas. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground all transfer containers and equipment.

SECTION 7: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation:	Use with ventilation sufficient to prevent exceeding recommended exposure limits or build up of explosive concentrations of vapor in air.
Respiratory Protection:	If personal exposure concentrations cannot be maintained below the appropriate exposure limits using engineering controls, a NIOSH approved respirator may be appropriate based on employer-determined exposure levels.
Eye Protection:	The use of safety glasses with side shields when pouring or applying this product may be warranted.
Skin Protection:	The use of polyvinyl alcohol, nitrile rubber, or neoprene glove when handling this product to avoid prolonged skin contact may be warranted.
Other:	Not required.
Work / Hygienic Practices:	Wash exposed skin prior to eating, drinking or smoking and at the end of each shift. Wash contaminated clothing prior to reuse.

SECTION 8: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Black liquid with characteristic odor		
Flash Point:	1° F	Lower Explosive Limit:	1.2%
Method Used:	Tagliabue closed tester	Upper Explosive Limit:	7.4%
Evaporation Rate:	1.9-9.5 (Ether=1)	Boiling Point:	217° F
pH (undiluted product):	Unknown	Melting Point:	Unknown
Solubility in Water:	Not miscible or difficult to mix	Specific Gravity:	.86 (Water=1)
Vapor Density:	3.7 (Air=1)	Percent Volatile:	71.4%
Vapor Pressure:	120 mm Hg @ 20°C		

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SECTION 9: STABILITY AND REACTIVITY

Thermal Stability:	Stable
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Avoid flames, sparks or other sources of ignition. Incompatible with acids, alkalies and strong oxidizing agents.

SECTION 10: TRANSPORTATION

Regulatory Agency:	U.S.A., DOT
Proper Shipping Name:	Adhesives, <i>containing a flammable liquid</i>
Hazard Classification:	3
Identification Number:	UN1133
Packing Group:	II
Labels Required:	Flammable
Other Requirements:	None known

SECTION 11: MISCELLANEOUS INFORMATION

Additional Comments:	None
Date of Previous MSDS:	October 15, 2008
Changes Since Previous MSDS:	Product name change
Telephone Number for Additional Information:	(317) 575-7190

DISCLAIMER

The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. GenFlex Roofing Systems, LLC, a subsidiary of Bridgestone Firestone Diversified Products, LLC, assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, GenFlex Roofing Systems, LLC assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.