



Material Safety Data Sheet

NFPA	WHMIS	PPE	Transport Symbol
	NOT REGULATED		NOT REGULATED

Preparation Date 15-Aug-2012

Revision Date 11-Jun-2013

Revision Number 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	HPR® TriBase Premium, BiFlex® Cap, BiFlex® Mineral Cap, FlexBase®, FlexBase® Plus, FlexBase® E, StressBase®, StressPly® Max, StressPly® Max FR Mineral, StressPly® EUV, StressPly® EUV FR Mineral, StressPly® Plus, StressPly® Plus Mineral, StressPly® E, StressPly® E FR Mineral	
Product Code	4121, 4140, 4141, 4143, 4144, 4145, 4411, 4350, 4351, 4356, 4359, 4376, 4377, 4393	
UN-No	Not available	
Contact Manufacturer	The Garland Company, Inc. 3800 East 91st. Street Cleveland, Ohio 44105-2197 Ph: (800) 762-8225 Fax: (216) 641-0633	Garland Canada, Inc. 209 Carrier Dr. Toronto, Ontario M9W 5Y8 Ph: (416)747-7995 (800)387-5991 Fax: (416)747-1980
Emergency Telephone Number	1-800-762-8225 (24 Hrs.)	

2. HAZARDS IDENTIFICATION

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Emergency Overview

This is a voluntary MSDS. Under normal use this product is not expect to create any health or environmental hazards. This product meets the requirements of OSHA definition of an “Article” under 29 CFR 1910.1200(c) and does not require a Material Safety Data Sheet (MSDS) as indicated under 29 CFR 1010.1200(b)(6)(v).

Under United States Regulations (29 CFR 1900.1200 – OSHA Hazard Communication Standard) the products listed above are exempt as articles under normal conditions of use. In Canada, these products are considered manufactured articles under the Workplace Hazardous Materials Information System (WHMIS) and are exempt. Under normal conditions of use the products listed in this MSDS are not expected to pose a physical hazard or health risk to humans. These products do not contain any form of asbestos materials. The component exposure limits and other information in this document are provided for abnormal or emergency circumstances such as heating (above 250F), burning, cutting, sanding and/or grinding when there is a potential for exposure to these components.

Appearance - Black

Physical State - Solid

Odor - Asphalt

OSHA Regulatory Status

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Mexico - Grade

Not available

Potential Health Effects

Acute Effects

All these effects, if they do occur, are usually mild, temporary and can be relieved by ceasing further exposure and seeking fresh air

Eyes

This finished product is not likely to cause effects to the eyes. If the membrane is hot-applied, asphalt fumes can be emitted, which cause irritations and redness to the eyes.

Skin

This product can cause a mechanical irritation of the skin because of its rough surface. If the membrane is hot-applied asphalt fumes can cause skin irritation.

Inhalation

This product is not likely to cause effects on the respiratory system. If the membrane is hot-applied with asphalt or an asphalt based adhesive, asphalt fumes can be emitted. Asphalt fumes can cause irritation to the upper respiratory tract (nose and throat). Other effects sometimes reported include headache, nausea, decreased appetite, fatigue, and acute lower respiratory tract (i.e. lung) effects such as coughing, wheezing and shortness of breath. Move to fresh air.

Ingestion

These products may be harmful or fatal if swallowed. They may cause dizziness, incoordination, headache, nausea and vomiting. Small amounts of these products, if aspirated into the lungs, may cause mild to severe pulmonary injury.

Toxicological information

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions

If the product is hot-applied in rare cases individuals with sensitive skin or a petroleum allergy or sensitivity may experience more severe effects such as exacerbation of existing asthma or underlying sinus conditions.

Interactions with Other Chemicals Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Asphalt	8052-42-4	30 - 60
Fibrous Glass (Oxides of Silicon, Aluminum, Calcium)	65997-17-3	5 - 10
Hydrated Alumina	21645-51-2	5 - 10
Crystalline Silica (Quartz)	14808-60-7	5 - 10
Calcium Carbonate	1317-65-3	10 - 30

*These products contain trace amounts of polynuclear aromatic compounds, some of which are listed as hazardous under various Federal, State, and international laws and regulations.

4. FIRST AID MEASURES

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician
Skin Contact	Wash gently with soap and water. with soap and plenty of water removing all contaminated clothes and shoes
Inhalation	Remove to fresh air.
Ingestion	DO NOT induce vomiting. Prevent aspiration of material into lungs. Seek immediate medical attention.
Notes to Physician	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Foam. Carbon dioxide (CO2). Sand. Dry chemical.
Unsuitable Extinguishing Media	Not available
Hazardous Combustion Products	Black smoke, Hydrogen sulfide, sulfur dioxide.
Explosion Data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

NEPA

Health 0

Flammability 1

Instability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Material is not normally involved in a spill/release scenario.
Environmental Precautions	No information available.
Methods for Containment	Pick up and dispose of small pieces If hot material is spilled, allow enough time to cool completely and remove to a container for disposal
Methods for Cleaning Up	Wash spill area with soap and water.
Other Information	Not applicable

7. HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes and clothing
Storage	Store upright to prevent creasing. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	Ontario TWAEV	Mexico
Asphalt	TWA: 0.5 mg/m ³	TWA: 15 mg/m ³ TWA: 5 mg/m ³	TWA: 0.5 mg/m ³	STEL: 10 mg/m ³ TWA: 5 mg/m ³
Crystalline Silica (Quartz)	TWA: 0.025 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³
Calcium Carbonate		TWA: 15 mg/m ³ TWA: 5 mg/m ³	TWA: 10 mg/m ³	STEL: 20 mg/m ³ TWA: 10 mg/m ³
Chemical Name		NIOSH IDLH		
Crystalline Silica (Quartz)		50 µg/m ³		

1. Because the substances listed above are incorporated into the product in a solid stable mixture, exposures exceeding the exposure limits are not likely to occur under normal conditions of use. The component exposure limits are provided for abnormal or emergency circumstances such as heating (above 250F), burning, cutting, sanding and/or grinding when there is a potential for exposure to these components. The limit of exposure is given for reference only.

Personal Protective Equipment

Eye/face Protection	Safety glasses with side-shields.
Skin Protection	Protective gloves. Long pant and long sleeve shirt.
Respiratory Protection	If ventilation is not sufficient to control exposures below TLV or PEL, use an appropriate properly fitted NIOSH approved respirator.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Hygiene Measures

If this product is hot-applied with asphalt or an asphalt based adhesive, workers may be exposed to asphalt fumes released from the hot asphalt. Although there is no evidence that the fumes and emissions that occur in these operations emanate from the product during hot application operations, precautions should be taken to minimize worker inhalation and dermal exposures to the fumes emanating from the hot asphalt. During these installations roofing contractors and workers should adhere to the engineering controls, work practices and personal protective equipment (including respirator) recommendations published by the National Institute for Occupational Safety and Health (NIOSH). See DHHS (NIOSH) Publication No. 2003-107, entitled "Reducing Roofers' Exposure to Asphalt Fumes".

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Fibrous Membrane	
Odor	Petroleum	
Physical State	Solid	
pH	Not available	
Flash Point	Not available	
Autoignition Temperature	Not available	
Boiling Point/Range	Not available	
Freezing Point	Not available	
Flammability Limits in Air	Lower Not available	Upper Not available
Explosive Properties	Not available	
Oxidizing Properties	Not available	
Evaporation Rate	Not available	
Vapor Pressure	Not available	
Vapor Density	Not available	
Specific Gravity	Not available	
Water Solubility	Not available	
Volatiles	Not available	

10. STABILITY AND REACTIVITY

Stability	This product is stable.
Conditions to Avoid	Open flames and intense heat.
Incompatible Materials	Acids, strong bases, organic solvents.
Hazardous Decomposition Products	None under normal processing.
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Component Information

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Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Asphalt	5000 mg/kg Rat	2000 mg/kg Rabbit	
Quartz (Crystalline Silica)	500 mg/kg Rat		
Hydrated Alumina	5000 mg/kg Rat		

Chronic Toxicity

Bronchitis has been reported among workers exposed to asphalt in several human studies. Several animal studies have reported indications of emphysema, bronchiolar dilatation, pneumonitis, and localized bronchitis in guinea pigs, rats, and mice chronically exposed to bitumens during inhalation studies. NIOSH has found the data to be limited, precluding any determination concerning asphalt exposure related chronic pulmonary morbidity.

Carcinogenicity

Asphalt:

While this product presents no hazard in its normal and intended use; FOR INSTALLATIONS THAT UTILIZE HOT APPLIED OXIDIZED ASPHALT (CAS # 64742-93-4): Chronic toxicity of asphalt fumes arise from hot asphalt. When this article is installed with a "cold application", defined as the use of asphaltic or non-asphaltic solvent or non-solvent borne adhesives, and used as directed; it is unlikely to create hazardous levels of asphalt emissions. As a result of the following conclusions, care must be taken in the use of hot applied oxidized asphalt systems. The International Agency for Research on Cancer (IARC) has determined that "occupational exposure to oxidized bitumens and their emissions during roofing" are classified as "probably carcinogenic to humans" (Group 2A). IARC's determination was based primarily on a finding of "sufficient" evidence of carcinogenicity of in animals for extracts and fume condensates from oxidized asphalt. IARC's review of studies in humans concluded that the evidence on the carcinogenicity of oxidized asphalt emissions in roofers is "limited" because of potential confounding by exposures to carcinogens such as coal-tar and tobacco smoking could not be ruled out. The National Institute for Occupational Safety and Health (NIOSH) has determined that roofing asphalt fumes are a "potential occupational carcinogen." In support of this finding, NIOSH determined that data from experimental studies in animals and cultured mammalian cells indicate that laboratory-generated roofing asphalt fume condensates are genotoxic and cause skin tumors in mice when applied dermally. Like IARC, NIOSH concluded that he results from epidemiologic studies indicate that roofers exposed to asphalt fumes are at an increased risk of lung cancer, but it is uncertain whether this increase can be attributed to asphalt and/or to other exposures such as coal tar or asbestos.

Component Carcinogenicity

ACGIH, IARC, OSHA and NTP carcinogen lists were checked for those components with CAS registry numbers.

Petroleum asphalt (8052-42-4)

ACGIH: A4 – Not Classifiable as a Human Carcinogen (related to Asphalt fumes)

Respirable Crystalline Silica (14808-60-7)

IARC: Carcinogenic to humans (Group 1)

NTP: Known to be a human carcinogen

ACGIH: Suspected Human Carcinogen (Class A2)

12. ECOLOGICAL INFORMATION

Ecotoxicity

No information available.

Persistence/Degradability

This product is not biodegradable.

Bioaccumulation/ Accumulation

No possible bioaccumulation and unlikely bioconcentration in the food chain.

Mobility in Environmental Media

Not available

13. DISPOSAL CONSIDERATIONS**Waste Disposal Method**

Dispose of in accordance with local, state, and federal regulations

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal

US EPA Waste Number

Not regulated

14. TRANSPORT INFORMATION**DOT**

Not regulated

IDG

Not regulated

MEX

Not regulated

ICAO

Not regulated

IATA

Not regulated

IMDG/IMO

Not regulated

15. REGULATORY INFORMATION**International Inventories**

All of the components in the product are on the following Inventory lists:

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	CHINA	KECL	PICCS	AICS
Asphalt	X	X	X	X	X	X	X	X	X	X
Fibrous Glass (Oxides of Silicon, Aluminum, Calcium)	X	X	X	X	X	X	X	X	X	X
Hydrated Alumina	X	X	X	X	X	X	X	X	X	X
Crystalline Silica (Quartz)	X	X	X	X	X	X	X	X	X	X
Calcium Carbonate	X	X	X	X	X	X	X	X	X	X

TSCA

Complies

DSL

Complies

NDSL

Complies

EINECS

Complies

ELINCS

Complies

ENCS

Complies

CHINA

Complies

KECL

Complies

PICCS

Complies

AICS

Complies

15. REGULATORY INFORMATION

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any HAPs.

State Regulations

California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	Category	Type
Quartz (Crystalline Silica)	14808-60-7	Carcinogen	

State Right-to-Know

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Asphalt	X	X	X		X
Crystalline Silica (Quartz)	X	X	X		X
Calcium Carbonate	X		X		X

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

Not determined

16. OTHER INFORMATION

Revision Date 11-Jun-2013

Revision Summary Product listing update

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS