SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Rolled Good

Product Name: Biflex Mineral Cap, Millennium FR Mineral, Millennium Mineral, StressPly E FR Mineral, StressPly EUV FR Mineral, StressPly FR Mineral, StressPly IV Mineral, StressPly IV Plus Mineral, StressPly IV Plus UV Mineral, StressPly IV UV Mineral, StressPly Max FR Mineral, StressPly Plus FR Mineral, StressPly Plus FR Mineral, StressPly SA FR Mineral, OptiMax FR Mineral, VersiPly Mineral

Product Code: 4125, 4140, 4365, 4377, 4383, 4384, 4396, 4702, 4351-W, 4359-W, 4369-G, 4377-G-P-80, 4380-W, 4395-W, 4602-G, 4603-G

Intended Use of the Product

Rolled good

Name, Address, and Telephone of the Responsible Party

Manufacturer	**Supplier**	
The Garland Company, Inc.	The Garland Company, Inc.	Garland Canada, Inc.
3800 East 91st Street	3800 East 91st Street	209 Carrier Drive
Cleveland, Ohio 44105-2197	Cleveland, Ohio 44105-2197	Toronto, Ontario M9W 5Y8
T-800-762-8225	T-800-762-8225	T-416-747-7995
F-216-641-0633	F-216-641-0633	F-416-747-1980
www.garlandco.com	www.garlandco.com	www.garlandco.com

Emergency Telephone Number

Emergency Number: 1-800-262-8200 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

This is a voluntary SDS. 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 Safety Data Sheet (SDS) as indicated under 29 CFR 1010.1200(b)(6)(v).**

Under United States Regulations (29 CFR 1900.1200 – OSHA Hazard Communication Standard) the product listed above is exempt as an article under normal conditions of use. In Canada, this product is considered a manufactured article under the Workplace Hazardous Materials Information System (WHMIS) and is exempt. Under normal conditions of use the product listed in this SDS is 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.

Classification of the Substance or Mixture

Classification (GHS-US)	
Flam. Liq. 2	H225
Acute Tox. Oral 4	H302
Irr. Skin 2	H315
Corr. Eye 2A	H319
Damage Eye 2B	H320
Carc. 1	H350
Carc. 2	H351
STOT RE 1	H372

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :

Signal Word (GHS-US) : Warning

Hazard Statements (GHS-US) :
H225 - Highly flammable liquid and vapor
H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 – Causes serious eye irritation
H320 - Causes eye irritation
H350 - May cause cancer by route of exposure if conclusively proven that no other route applies
H351 – Causes damage to organs through prolonged or repeated exposure by route of exposure if conclusively proven that no other route applies suspected of causing cancer
H372 - Causes damage to organs through prolonged or repeated exposure by route of exposure if conclusively proven that no other route applies

Precautionary Statements (GHS-US) :
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment (see supplemental instructions on the administration of antidotes on this label).
P330 - Rinse mouth.
P332 + P313 - If skin irritation occurs: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P370 + P378 - In case of fire: Use for extinction.
P403 + P235 - Store in a well-ventilated place. Keep cool.
P501 – Dispose of contents/container to hazardous or special waste collection point.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Asphalt	(CAS No) 8052-42-4	30-60	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 Carc. 2, H351
Fiber Glass Mat [1] **Contains:** Fibrous Glass (Oxides of Silicon, Aluminum, Calcium)	(CAS No) 65997-17-3	5-10	Carc. 1, H350
Recycled Glass, Slag & Mineral[2] **Contains:** Crystalline Silica (Quartz)Crystalline Silica (Quartz)	(CAS No) 14808-60-7	0-2	Carc. 1, H350 STOT RE 1, H372
Calcium Carbonate	(CAS No) 1317-65-3	10-30	Acute Tox. Oral 4, H302 Skin Corr. Irr. 2, H315 Eye Irr. 2B, H320 STOT RE 1, H372

1. The exposure to the substance above the limits of exposure is not likely to occur considering its form (incorporated in the mixture) and/or the provided use. The limit of exposure is given for reference only.
2. A proportion of crystalline silica may be present in the surfacing on some membranes. The crystalline silica contained on the surface of the membrane is not likely to be found in the ambient air in concentration above the limit of exposure since it adheres to the surface of the membrane.

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Discard any shoes or clothing items that cannot be decontaminated.
Inhalation: Remove to fresh air.
Skin Contact: Wash gently with soap and water with soap and plenty of water removing all contaminated clothes and shoes.
Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Ingestion: DO NOT induce vomiting. Prevent aspiration of material into lungs. Seek immediate medical attention.

Indication of Immediate Medical Attention and Special Treatment Needed

In case of ingestion, the decision of whether or not to induce vomiting should be made by the attending physician. Certain pre-existing conditions may make workers particularly susceptible to the effects of this chemical: asthma, allergies, impaired pulmonary function.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Foam. Carbon dioxide (CO2). Sand. Dry chemical.
Unsuitable Extinguishing Media: Not available.

Hazardous Combustion Products

Black smoke, Hydrogen sulfide, sulfur dioxide.

Advice for Firefighters

Precautionary Measures Fire: Not available
Special 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
Specific Methods: Keep product and empty container away from heat and sources of ignition

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Material is not normally involved in a spill/release scenario.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

For Emergency Personnel

Environmental Precautions

No information available.

Methods and Materials for Containment and Cleaning Up

Wash spill area with soap and water.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with skin, eyes and clothing

Conditions for Safe Storage, Including Any Incompatibilities

Store upright to prevent creasing. Keep out of the reach of children.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV	OSHA PEL	Ontario TWAEV	Mexico
Asphalt	TWA: 0.5 mg/m3	TWA: 15 mg/m3 TWA: 5 mg/m3	TWA: 0.5 mg/m3	STEL: 10 mg/m3 TWA: 5 mg/m3
Crystalline Silica (Quartz)	TWA: 0.025 mg/m3	TWA: 0.1 mg/m3	TWA: 0.1 mg/m3	TWA: 0.1 mg/m3
Calcium Carbonate	TWA: 15 mg/m3 TWA: 5 mg/m3	TWA: 10 mg/m3	STEL: 20 mg/m3 TWA: 10 mg/m3	

Chemical Name	NIOSH IDLH
Crystalline Silica (Quartz)	50 µg/m3

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 Respiratory Protection

Protective gloves. Long pant and long sleeve shirt.

If ventilation is not sufficient to control exposures below TLV or PEL, use an appropriate properly fitted NIOSH approved respirator.

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”.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Appearance: Fibrous Membrane
Odor: Petroleum
Physical State: Solid
pH: Not Available
Flash Point: Not Available
AutoignitionTemperature: Not Available
Boiling Point/Range: Not Available
Freezing Point: Not Available
Flammability Limits in Air: 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

SECTION 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

SECTION 11. TOXICOLOGICAL INFORMATION

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

SECTION 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

SECTION 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

Waste Disposal Recommendations: Dispose of contents/container in accordance with local/regional/national/international regulations. When this product as supplied is to be discarded as waste, it does not meet the definition of a RCRA waste under 40 CFR 261.

Unused and Contaminated Product: Offer rinsed packaging material to local recycling facilities.

SECTION 14: TRANSPORT INFORMATION

DOT: Not regulated
TDG: Not regulated
MEX: Not regulated
ICAO: Not regulated
IATA: Not regulated
IMDG/IMO: Not regulated

SECTION 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
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

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		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

SECTION 16: OTHER INFORMATION

Revision Date	:	06/15/2016
Other Information	:	This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.
Party Responsible for the Preparation of This Document	:	The Garland Company, Inc. 3800 East 91st Street Cleveland, Ohio 44105-2197 T-1800-762-8225

F-216-641-0633

This information is based on our knowledge as of the Revision Date and is intended to describe the product only for the purposes of health, safety and environmental requirements as of the Revision Date. It should not therefore be construed as guaranteeing any specific property of the product nor as providing any warranty, expressed or implied. The user assumes all responsibility, liability, risk of loss, damage, or expense arising out of, or in any way connected with, the handling, storage, use, or disposal of the product.