



# Material Safety Data Sheet

NFPA	WHMIS	PPE	Transport Symbol
	NOT REGULATED		NOT REGULATED

Preparation Date 15-Aug-2012

Revision Date 09-Oct-2012

Revision Number 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	HPR® Glasbase, HPR® Premium Glasbase, HPR® Glasfelt, HPR® Premium Glasfelt, HPR® Organic Base Sheet, HPR® Polyscrim Plus	
<b>Product Code</b>	4112, 4116, 4122, 4123, 4128, 4873	
<b>UN-No</b>	Not available	
<b>Contact Manufacturer</b>	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
<b>Emergency Telephone Number</b>	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. Fumes created when hot liquid asphalt is used to apply, repair or maintain these products may cause severe irritation, redness, or blurred vision. Contact with hot product in abnormal or emergency circumstances may cause thermal burns and severe eye damage.

##### 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

Chronic respiratory or skin conditions may temporarily worsen from exposure to emissions from these products in abnormal or emergency conditions.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Oxidized Asphalt	64742-93-4	0 - 75
Asphalt	8052-42-4	0 - 60
Crystalline Silica (sand)	14808-60-7	0 - 30
Dry Roofing Felts	Not Available	0 - 45
Formaldehyde (within fiberglass)	50-00-0	<0.1
Fiberglass Mat	65997-17-3	1 - 5
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

<b>Eye Contact</b>	Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.
<b>Skin Contact</b>	If hot material strikes skin, immediately drench or immerse the area in water to assist cooling. If available, apply iced water or ice packs to the burned area. DO NOT try to remove asphalt from burn after it has cooled. Seek medical attention. Medical personnel can soften and remove cooled asphalt with petroleum jelly or mineral oil. For contact with cold material, clean exposed skin with waterless hand cleaner, then wash with mild soap and water. If irritation persists, seek medical attention.
<b>Inhalation</b>	Move person to fresh air. Administer cardiac or pulmonary resuscitation (CPR) if a pulse is not detectable or if unable to breathe. Provide oxygen if breathing is difficult. Obtain immediate medical assistance.
<b>Ingestion</b>	DO NOT induce vomiting. Prevent aspiration of material into lungs. Seek immediate medical attention.
<b>Notes to Physician</b>	Treat symptomatically

### 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Foam. Carbon dioxide (CO <sub>2</sub> ). Sand. Dry chemical.
<b>Unsuitable Extinguishing Media</b>	Not available
<b>Hazardous Combustion Products</b>	Primary combustion products are black smoke, carbon monoxide, carbon dioxide. Combustion products may include hydrogen sulfide, sulfur oxide.
<b>Explosion Data</b>	
<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	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

**NFPA****Health 0****Flammability 1****Instability 0****6. ACCIDENTAL RELEASE MEASURES**

<b>Personal Precautions</b>	Material is not normally involved in a spill/release scenario.
<b>Environmental Precautions</b>	No information available.
<b>Methods for Containment</b>	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
<b>Methods for Cleaning Up</b>	Wash spill area with soap and water.
<b>Other Information</b>	Not applicable

**7. HANDLING AND STORAGE**

<b>Handling</b>	<p>Do not get these materials in your eyes or on your skin and minimize exposure to fumes from heated material. Wash exposed areas thoroughly after handling these products. Keep these products from sparks or open flame. Use these products with adequate ventilation.</p> <p>Hydrogen sulfide may be emitted from heated asphalt. Prolonged breathing (greater than 1 hour) of concentrations of hydrogen sulfide around 50 ppm can produce eye and respiratory tract (mouth, nose and throat) irritation and at high concentrations (around 300 ppm) is considered immediately dangerous to life and health.</p> <p>Since the sense of smell becomes rapidly insensitive to hydrogen sulfide, its odor cannot be relied upon as an indicator of its concentration. Use ventilation or work upwind from source of fumes or vapors. Use supplied air respirators or self-contained breathing apparatus if the PEL or TLV for hydrogen sulfide (10 ppm, 8hr TWA) is exceeded.</p>
<b>Storage</b>	Store upright to prevent creasing. Store away from heat and all ignition sources and open flames in accordance with applicable laws and regulations. Keep out of the reach of children.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Chemical Name	ACGIH TLV	OSHA PEL	Ontario TWAEV	Mexico	NIOSH IDLH
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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Asphalt	TWA: 0.5 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	STEL: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	REL: 5 mg/ m <sup>3</sup>
Asphalt Oxidized	0.5 mg/ m <sup>3</sup> TLV-TWA; (Fume)				REL: 5 mg/ m <sup>3</sup>
Quartz (Crystalline Silica)	TWA: 0.025 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.10 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	50 µg/m <sup>3</sup>
Calcium Carbonate		TWA: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	STEL: 20 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>	
Formaldehyde	Ceiling: 0.3 ppm	TWA: 0.75 ppm STEL: 2 ppm	STEL: 2 ppm STEL: 3 mg/m <sup>3</sup> TWA: 1 ppm TWA: 1.5 mg/m <sup>3</sup>	Ceiling: 3 mg/m <sup>3</sup> Ceiling: 2 ppm	REL:0.016ppm TWA: 0.1ppm

### Personal Protective Equipment

#### Eye/face Protection

Safety glasses with side-shields.

#### Skin Protection

Protective gloves. Long pants 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. If irritation occurs or if the PEL or TLV for asphalt fume is exceeded, use any half-facepiece, air purifying respirator equipped with a combination R100 or P100 filter and an organic vapor (OV) cartridge.

Use respiratory protection in accordance with your company's respiratory protection program, local regulations and OSHA regulations under 29 CFR 1910.134.

#### 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	>1000°F (>538°C)	
Freezing Point	Not available	
Flammability Limits in Air	<b>Lower</b> Not available	<b>Upper</b> Not available
Explosive Properties	Not available	

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Oxidizing Properties</b>	Not available
<b>Evaporation Rate</b>	Not available
<b>Vapor Pressure</b>	Not available
<b>Vapor Density</b>	Not available
<b>Specific Gravity</b>	1.08>1.11
<b>Water Solubility</b>	Insoluble
<b>Volatiles</b>	0%

## 10. STABILITY AND REACTIVITY

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

## 11. TOXICOLOGICAL INFORMATION

### Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Asphalt	5000 mg/kg Rat	2000 mg/kg Rabbit	
Quartz (Crystalline Silica)	500 mg/kg Rat		
Formaldehyde	100mg/kg Rat	270mg/kg Rat	0.578 mg/L Rat 4 h 250 ppm Rat 4 h

### 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

#### A: General Information

**Asphalt:** The International Agency for Research on Cancer (IARC) has classified occupational exposures to oxidized bitumens (asphalts) and their emissions during roofing as being probably carcinogenic to humans (Group 2 A). Based primarily on studies of lung cancer in humans, IARC concluded that there was 'limited evidence' carcinogenicity among workers exposed to asphalt and asphalt emissions during roofing. In studies of skin tumors in experimental animals exposed dermally to asphalt materials, IARC found 'limited evidence' of carcinogenicity for oxidized asphalt, and 'sufficient evidence' of carcinogenicity for fume condensates of oxidized asphalt.' Based on a 2000 review of health effects literature, NIOSH concluded that roofing asphalt fumes are a potential occupational carcinogen.

**Silica:** Crystalline silica is considered a hazard by inhalation. The (IARC) has classified crystalline silica as carcinogenic to humans (Group 1). The National Toxicology Program (NTP) has classified silica as known to be a human carcinogen.

These classifications are based on the findings of increased lung cancer risks in epidemiological studies of workers exposed to respirable crystalline silica, and in laboratory animal studies (inhalation and intratracheal instillation). The carcinogenicity of crystalline silica has not been classified by the Occupational Safety and Health Administration (OSHA). Excessive exposure to respirable crystalline silica can also cause serious and irreversible non-cancerous lung disease including silicosis. Acute effects of inhalation exposures to respirable crystalline silica include irritation of the eyes, nose and throat.

**Formaldehyde:** IARC and NTP have classified formaldehyde as a known human carcinogen based principally on studies in humans, including "sufficient evidence" that formaldehyde causes nasopharyngeal cancer, "limited evidence" for cancer of the nasal cavity and paranasal sinuses, and "strong but not sufficient evidence" for leukemia. Inhalation exposure to formaldehyde can cause eye, nose, and throat irritation, bronchitis, and effects on the nasal cavity. Other effects observed in association with exposure to high levels of formaldehyde include coughing, wheezing, chest pains, and bronchitis. Ingestion exposure to formaldehyde in humans has resulted in corrosion of the gastrointestinal tract and inflammation and ulceration of the mouth, esophagus, and stomach. Repeated dermal contact with liquid solutions of formaldehyde has resulted in skin irritation and allergic contact dermatitis in humans.

#### **B: 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)

##### **Oxidized Asphalt (64742-93-4)**

IARC: Occupational exposure to oxidized asphalt and its emissions during roofing is probably carcinogenic to humans (Group 2A).

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)

##### **Formaldehyde:**

IARC: Carcinogenic to humans (Group 1)

NTP: Known to be a human carcinogen

ACGIH: Suspected Human Carcinogen (Class A2)

## **12. ECOLOGICAL INFORMATION**

#### **Ecotoxicity**

No data available for these products. These products are not expected to produce significant

## **13. DISPOSAL CONSIDERATIONS**

<b>Waste Disposal Method</b>	Dispose of in accordance with local, state, and federal regulations
<b>Contaminated Packaging</b>	Empty containers should be taken for local recycling, recovery or waste disposal
<b>US EPA Waste Number</b>	Not regulated

## **14. TRANSPORT INFORMATION**

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<b>DOT</b>	Not regulated
<b>TDG</b>	Not regulated
<b>MEX</b>	Not regulated
<b>ICAO</b>	Not regulated
<b>IATA</b>	Not regulated
<b>IMDG/IMO</b>	Not regulated

**15. REGULATORY INFORMATION**
**International Inventories**

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

Chemical Name	CAS Number	TSCA	DSL	EINECS
Asphalt	8052-42-4	X	X	X
Calcium Carbonate	1317-65-3	X	X	X
Quartz (Crystalline Silica)	14808-60-7	X	X	X
Formaldehyde	50-00-0	X	X	X

**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.

**State Right-to-Know**

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

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

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**WHMIS Hazard Class**

Not determined

<b>16. OTHER INFORMATION</b>
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**Revision Date** 09-Oct-2012

**Revision Summary** Not available

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**