



SUBMITTAL PACKAGE

# RamProof GC™

Single Component Fluid Applied Elastomeric  
Rubberized Asphalt Waterproofing Membrane

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# What Makes Barrett the Best Value in Roofing and Waterproofing Systems?

Barrett has been serving the roofing and waterproofing industry since 1928 and specializing in hot fluid-applied rubberized asphalt since 1975. Decades of experience in the manufacturing, system design, and application of moisture protection systems allows Barrett to offer "World Class" specification and application support.

Barrett system designs and details do not compromise quality or long term performance for a competitive edge. Barrett is dedicated to the proven performance of polymer-modified asphalt technology and does not compromise its drive for excellence by offering less sustainable systems.

Roofing performance promises are easy to make, hard to deliver. Almost all roofing material manufacturers advertise and profess to offer the "best" or "ultimate" systems and to meet every need of every customer. But our systems and components often exceed industry standards and have developed a reputation for being "bulletproof." And with projects like the Lincoln and Jefferson Memorial, Fort Knox, the Martin Luther King, Jr. Memorial Library, Millenium Park, Terminal Tower, and more under our belt, it's easy to understand why.



**2** Barrett projects (The Lincoln Memorial & the IMF Headquarters One and Two) have won the NRCA "Gold Circle Award."

**4** Greenroof Roofscapes® with RamTough 250 have been awarded the prestigious GRHC "Award of Excellence."

Barrett's primary expertise in roofing and waterproofing technologies, combined with long-term relationships with suppliers of supplemental products, allow for single source designs and system warranties. Many years of "hands-on" installation experience has provided Barrett with the know-how to bring together roofing and waterproofing components into compatible system designs consistent with real-world workmanship to successfully complete unique projects.

Barrett offers a national network of approved contractors which have demonstrated their ability to install high-performance systems and a willingness to work cooperatively with others to meet overall project objectives. An RCI Registered Roof Consultant is on staff to service customers and lead the technical competencies of the company.

Unlike most of our direct competitors, Barrett products are "Made in the USA". Buying domestic products means improving our balance of trade, supporting our workforce, helping our economy, and sustaining environmental initiatives. Barrett products are available from distributors nationwide.



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# RamProof GC

## Single Component Fluid Applied Elastomeric Rubberized Asphalt Waterproofing Membrane

<b>APPLICATION</b>	Liquid Applied Membrane
<b>INSTALLATION</b>	Single Component
<b>TECHNOLOGY</b>	Elastomeric Modified Rubberized Asphalt

**RamProof GC (Green Concrete)** is comprised of an industry changing asphaltic-rubber formulation that combines the elastic properties of modified rubber with the weatherproofing and waterproofing characteristics of emulsified asphalt. The resulting asphaltic-rubber membrane provides a complete, high-performance waterproofing membrane that is VOC-free, environmentally friendly, rapidly installed, and delivers a complete solution for the entire scope of waterproofing.

RamProof GC forms to a single set, fully adhered, monolithic, and seamless membrane that results in a high-performance membrane that resists hydrostatic pressure, bridges cracks and will move with created expansion and contraction of surfaces.



### FEATURES

- Single Component
- Economical
- +1000% Elongation
- Self-Healing
- Tenacious Adhesion
- Labor-Saving; Quick Return-to-Service
- No VOCs
- Expands & Contracts
- Easy to Use
- Apply Immediately After Forms Removal
- Labor-Saving
- Eco-Friendly
- LEED-Certified

### COLOR

- Black



### APPLICATIONS

- Green Concrete
- Warehouses
- Masonry
- Storage Areas
- Basements
- Tunnels
- Plaza Decks
- Damp Proofing
- Foundation Walls
- Restrooms
- Parking Decks
- Planters
- Bridges

### COVERAGE

DAMP PROOFING

Apply 20 wet mils/  
Finish 10-12 dry mils

60 dry mils

26 sq ft/gal

### PACKAGING



5 Gal Pail



55 Gal Drum

### APPROVALS



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# Ram 306

## Modified Bitumen UV Stable Protection Course



### Description

Ram 306 is a SBS polymer-modified, polyester reinforced modified bitumen membrane with a ceramic granule surface protection. The granular surface creates a UV stable protection course. The high strength polyester reinforcement gives the composite membrane excellent tensile strength, toughness, puncture and tear resistance necessary to accommodate typical rooftop exposures.

### Uses

Ram 306 is used for a UV or extremely heavy duty for the protection course to protect RamTough 250 and RamTough KLB-100.

### Properties

Description	Measurement			
	INITIAL RESULTS		AFTER CONDITIONING*	
	MD**	XD**	MD**	XD**
<b>Load Strain @ 77°F</b>				
Maximum Load (lbs/in.)	93	63	98	70
Elongation @ Max. Load (%)	56	61	48	54
Strain Energy @ Max. Load (inch-lbs/in2)	40	29	36	28
<b>Load Strain @ 0°F</b>				
Maximum Load (Lbs/in.)	127	98	117	83
Elongation @ Max. Load (%)	34	29	29	22
Strain Energy @ Max. Load (inch-lbs/in2)	36	28	29	17
<b>Low Temperature Flexibility</b>				
Initial -low temperature cracking does not occur	-15°F	-15°F	-	-
After heat conditioning at (158°F for 90 days)	-	-	-5°F	-5°F
Thickness (mils) (average value)	160	-	-	-
Tensile Tear Strength @ 77°F(lbf)	120	87	-	-
Moisture Content (%)	0.6	-	-	-
Water Absorption (%)	0.6	-	-	-
<b>Dimensional Stability</b>				
(Absolute Dimensional Change) (%)	< -0.5	< -0.5	-	-
<b>Compound Stability</b>				
Temperature at which flow formation observed	250°F	-	-	-

Meets or exceeds the requirements of ASTM D-6164 Type I Grade G Test Results per ASTM D-5147 \*158°F for 90 days

\*\*MD = machine direction, XD = cross direction

### Coverage

107 sq ft



39"x33'  
98 lbs. per roll  
25 per pallet

LIMITED WARRANTY: Barrett warrants its Products to be free of defects in materials, but makes no warranty as to appearance or color. Since methods of application and on-site conditions are beyond our control and can affect performance, Barrett makes no other warranty, expressed or implied, including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE, with respect to The Barrett Company, LLC. Barrett to replace or to refund the purchase price of the quantity of Barrett proven to be defective, and Barrett shall not be liable for any loss or damage.



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# Ram 203

## Modified Bitumen Medium-Duty Protection Course



### Description

Ram 203 is a SBS polymer-modified, fiberglass reinforced asphalt membrane with sanded surfaces, top and bottom to create a medium-duty protection course.

### Uses

Ram 203 can be used as a medium-duty protection course for RamTough 250, RamTough KLB-100 and torch down applications.

### Coverage

159 sq ft



### Properties

Description	Measurement	Test Method
Thickness	2.2 mm/86 mils	
Reinforcement	Fiberglass	
Max. Load at 0±3.6°F (lbf/in)	91 (15.9 kN/m)	ASTM D-6163
Elongation at 0±3.6°F (%)	4.5	ASTM D-6163
Max. Load at 73.4±3.6°F (lbf/in)	41 (7.2 kN/m)	ASTM D-6163
Elongation at 73.4±3.6°F (%)	3.7	ASTM D-6163
Tear Strength at 73.4±3.6°F (lbf)	73 (12.8 kN/m)	ASTM D-6163
Low Temp. Flex 0°F Max.	-15 (26.1°C)	ASTM D-6163
Dimensional Stability (%) Max.	<0.1	ASTM D-6163
Compound Stability Temp (°F)	250 (121°C)	ASTM D-6163



### Packaging

39"x49'  
90 lbs. per roll  
24 per pallet

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# Ram 201

## Modified Bitumen Light-Duty Protective Base



### Description

Ram 201 is a fiberglass-reinforced, polymer-modified asphalt sheet with sanded surfaces. The polymer modification provides exceptional elongation, elastic and cold temperature flexibility properties. The high strength polyester reinforcement gives the composite membrane excellent tensile strength, toughness, puncture and tear resistance that exceeds typical rooftop exposures.

### Uses

Ram 201 can be installed in hot asphalt bitumen like our RamTough 250, as well as in approved cold applied adhesives and mastics like our RamTough KLB-100 and Black Pearl®.

### Coverage

321 sq ft



### Properties

Description	Measurement	Test Method
Thickness	52 mils (1.3mm)	
Tensile Max. Load (lbf/in) at 73.4± 3.6°F 23°C± °C	116 MD/104XD	
Elongation at 0±3.6°F (%)	4.2 MD/4.0 XD	ASTM D-4632
Low Temperature Flex ° (max)	-15°F MD/XD 26.1°C MD/XD	
Dimensional Stability % (max)	<0.1 MD/XD	
Compound Stability Temp (°)	215°F (101.67°C)	
Tear Strength at 73.4 ± 3.6°F (lbf) (N)	82MD/73XD 365.7MD/325.58	

**\*Physical properties per ASTM D-6163 Type I, Grade S**



**Packaging**

36"x 107'  
81.5 lbs. per roll

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# PolyFelt 125

## Reinforcement Fabric



### Description

PolyFelt 125 is a 16 mil lightweight thermally bonded spun laid non-woven fabric reinforcement.

### Coverage

1,073 sq ft per roll

### Uses

RamTough 250 & KLB-100 - Is Installed as a reinforcement fabric between the first and second layers.



### Properties

Description	Measurement	Test Method
Color	Gray	
Thickness	16 (mils) (0.406 mm)	ASTM D-1777
Mat Weight	2.2 oz./ sq yd (62.4 g)	
Tensile Strength		
Warp (MD) lbs./in.	78 lbs./in (35.4kg)	ASTM D-5034
Fill (CMD) lbs./in.	85 lbs./in (38.6kg)	ASTM D-5034
Tensile Strength		
Warp (MD) lbs./in.	58 lbs./in (26.3kg)	ASTM D-5034
Fill (CMD) lbs./in.	54 lbs./in (24.5kg)	ASTM D-5034
Tensile Strength		
Warp (MD) lbs./in.	23.8 lbs./in (10.8kg)	ASTM D-1117
Fill (CMD) lbs./in.	24.9 lbs./in (11.3kg)	ASTM D-1117
Puncture Resistance	31 Lbs (14.1kg)	ASTM D-4830



### Packaging

39.4"x327'  
Roll Weight 22 lbs  
25 rolls per pallet

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# SAFETY DATA SHEET

## IDENTIFICATION AND EMERGENCY INFORMATION

**PRODUCT NAME:** RamProof GC (Green Concrete)

**MANUFACTURER:**

BARRETT COMPANY  
2926 CHESTER AVE.  
CLEVELAND, OH 44114

**TOLL-FREE NUMBER:** (877) 514-5336

**MAIN NUMBER:** (440) 605-1020

**FAX NUMBER:** (440) 605-1120

**EMERGENCY NUMBER:** (800) 424-9300

**DATE PREPARED:** June 16, 2020

### SECTION 2: HAZARD IDENTIFICATION

**Hazards**

Serious eye damage/eye irritation      Category 2B - Causes eye irritation

**Signal Word**

WARNING

**Precautionary Statements**

Wash hands or other contact areas thoroughly after handling.

**If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

**If eye irritation persists:** Get medical advice/attention.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS#	Component%
Asphalt	8052-42-4	35 - 65
Non-hazardous components	Mixture	35 - 65

### SECTION 4: FIRST AID MEASURES

**Skin Contact**

Hot Emulsified Material - Cool the affected body parts immediately by submerging in cold water until the material has cooled. Do not attempt to remove solidified material from the burn area as this may further tissue damage. Take the victim to obtain medical assistance immediately.

Cold Emulsified Material - Remove emulsified asphalt by soaking dressing in mineral oil and place over affected area for 2-3 hours. If irritation occurs, call a physician. Never try to remove the material with solvents.

**Eye Contact**

Gently flush immediately with cold water for 15 minutes. Do not attempt to remove solidified material from the eye, as this may further injury. Take the victim to obtain medical assistance.

**Inhalation**

If irritation occurs from inhalation overexposure, immediately remove victim from source to fresh air and seek medical attention.

**Ingestion**

Ingestion is not likely. If large amounts are swallowed, do not induce vomiting and immediately call a physician.



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## SECTION 5: FIREFIGHTING MEASURES

### Suitable Extinguishing Media

Foam, Carbon Dioxide, Dry Chemical, and Water Spray may all be suitable in extinguishing fires involving this product. Avoid using water streams to prevent frothing. Use water spray to cool exposed surfaces.

### Special Firefighting Procedures

Clear fire area of unprotected and untrained personnel. Do not enter confined fire space without full equipment and a positive pressure NIOSH approved self-contained breathing apparatus.

### Unusual Firefighting Hazards

Combustion consumes oxygen and produces carbon dioxide, carbon monoxide and other, possibly toxic gases.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal Precautions

Isolate release area and keep unnecessary or untrained people away. Floor and surfaces may be slippery. See Section 8 for personal protection gear.

### Environmental Precautions

Contain spill if it can be done with minimal risk. Prevent liquid from entering drains, sewers or waterways.

### Methods for Cleaning Up

Stop source of leak. Eliminate sources of ignition. Contain by diking or impounding. Absorbents can be used to contain spill. After containment, emulsified asphalt can be collected for disposal. Advise authorities if product has entered a sewer or water source. Assure conformity with local, state, and federal governmental regulations for disposal.

## SECTION 7: HANDLING AND STORAGE

When opening covers and outlet cap on storage tanks, use face shield and gloves to avoid possible injury from pressurized asphalt. Hydrogen sulfide can be generated and accumulated in storage tanks and bulk transport compartments. Stay upwind and vent storage hatches before unloading. Keep heating units and flues in storage tanks covered with at least 12 inches of asphalt. Do not allow to freeze. Do not store in direct sunlight. Do not overheat. Empty Container Warning: Empty containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

## SECTION 8: EXPOSURE CONTROL AND PERSONAL PROTECTION

### Exposure Limits

Component Name	CAS#	OSHA PEL	ACGIH TLV
Asphalt	8052-42-4	Not Estab.	0.5 mg/m <sup>3</sup>

### Engineering Controls

Local or general exhaust is required if necessary in an enclosed area to remain below the TLV. If work place exposure limits are exceeded, a NIOSH/MSHA approved air supplied respirator is advised in the absence of proper environmental engineering controls.

### General Hygiene

Skin contact and the breathing of mists, fumes, or vapors should be reduced to a minimum to avoid any ill effects. Thoroughly wash exposed skin areas after work to avoid dermatitis. Consider the use of lanolin skin treatments before handling or working around asphalt mixtures.

### Eye and Face Protection

Safety goggles or chemical splash goggles if splashing is anticipated.

### Skin Protection

Wear body covering clothes to avoid prolonged or repeated exposure. Launder before reuse. Oil impervious gloves, such as Neoprene, if frequent or prolonged contact is expected.

### Respiratory Protection

Respiratory protection is not normally required under normal conditions and adequate ventilation. If high vapors are expected, use respirator approved for organic vapors. Observe respirator protection factor criteria cited in ANSI Z88.2 (1980) and other OSHA requirements found in 29 CFR 1910.134. Use air-supplied respirators or self-contained breathing apparatus for firefighting and in confined spaces when asphalt vapor or hydrogen sulfide gas exceeds permissible limits.



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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance/Physical State</b>	Brown liquid	<b>Flash Point</b>	>200 °F
<b>Specific Gravity (Water=1)</b>	0.92 – 1.05	<b>Upper Flammability Limits</b>	Not Determined
<b>Evaporation Point</b>	Not Determined	<b>Lower Flammability Limits</b>	Not Determined
<b>pH</b>	7 – 11	<b>Auto-ignition Temperature</b>	Not Applicable
<b>Solubility in Water</b>	Complete	<b>Decomposition Temperature</b>	Not Determined
<b>Odor</b>	Characteristic	<b>Vapor Pressure</b>	<10 mm @ 77 °F
<b>Odor Threshold</b>	Not Determined	<b>Vapor Density (Air=1)</b>	>1.0
<b>Melting/Freezing Point</b>	Not Determined	<b>Partition Coefficient (n-</b>	Not Determined
<b>Boiling Range</b>	212 °F	<b>Viscosity</b>	Not Determined
<b>Initial Boiling Point</b>	Not Determined	<b>Critical Temperature</b>	Not Determined
Note: Physical and chemical properties are provided for safety, health and environmental considerations and do not fully represent product specifications. Those should be requested separately.			

**SECTION 10: STABILITY AND REACTIVITY****Stability**

Stable

**Conditions to Avoid**

Strong oxidizers

**Hazardous Decomposition / Byproducts**

Fumes, smoke, carbon monoxide, hydrogen sulfide, sulfur dioxide, aldehydes, and hydrocarbons.

**Hazardous Polymerization**

Will not occur

**Polymerization Conditions to Avoid**

Will not occur

**SECTION 11: TOXICOLOGICAL INFORMATION**

Specific toxicity tests have not been conducted on this mixture. In accordance with OSHA's Hazard Communication Standard 1910.1200, this mixture is assumed to have the same health hazards as its significant components.

**Likely Routes of Exposure**

Skin, eyes, inhalation

**Inhalation**

Breathing vapors, fumes, or mists may cause irritation to nasal and respiratory tract and central nervous system effects. Symptoms may include labored breathing, sore throat, coughing, wheezing, dizziness, headache, and nausea.

**Eye Contact**

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Contact with hot emulsified asphalt can cause minor thermal burns to the eyes. Prolonged exposure to vapors, fumes, or mists may cause eye irritation, redness, and tearing.

**Skin Contact**

Skin contact with hot emulsified asphalt can cause minor thermal burns. Prolonged exposure to vapors, fumes, or mists may cause irritation, redness, and dermatitis.

**Ingestion**

Ingestion is not likely. Ingestion may cause thermal burns. If ingestion of emulsified material occurs, keep victim's head below their hips to prevent emulsion from reaching the lungs. Take the victim to obtain medical assistance immediately.

**Carcinogenicity**

Asphalt emissions and fumes contain trace levels of polynuclear aromatic hydrocarbons (PNAs) that are known carcinogens. The fumes are characterized by IARC as possibly carcinogenic to humans (Group 2B).

**SECTION 12: ECOLOGICAL INFORMATION**

Liquid asphalt emulsion product may cause fouling of water and/or may be toxic to aquatic animals. Once solidified, this product will no longer exhibit these characteristics.

<b>Ecotoxicity</b>	Not Determined
<b>Mobility</b>	Not Determined
<b>Degradability</b>	Not Determined
<b>Bioaccumulation</b>	Not Determined

**SECTION 13: DISPOSAL CONSIDERATION**

This material, if discarded as produced, is not a RCRA "listed" hazardous waste. Use which results in chemical or physical change or contamination may subject it to regulation as a hazardous waste. It is the responsibility of the generator to fully characterize for toxicity and other RCRA parameters prior to disposal (40 CFR 261). Along with properly characterizing all waste materials, consult state and local regulations regarding proper disposal of this material.

**SECTION 14: TRANSPORT INFORMATION**

**Proper Shipping Name**

Not Regulated

**SECTION 15: REGULATORY INFORMATION**

**TSCA Status**

All components are listed in the TSCA inventory.

**SARA 302/304 Extremely Hazardous Substances**

Not Applicable

**SARA 311/312 Reporting Categories**

Acute hazard

**SARA 313 Reportable Ingredients**

Not Applicable

**Additional Information**

Petroleum compounds are considered hazardous if released into navigable waterways. See individual state lists for right to know requirements.



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**SECTION 16: OTHER INFORMATION**

**NFPA Rating**      1-0-0                      **HMIS**      1-0-0

**Department Issuing SDS**      Health and Safety

**Disclaimer**

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# SAFETY DATA SHEET

## IDENTIFICATION AND EMERGENCY INFORMATION

**PRODUCT NAME:** Ram 306

**MANUFACTURER:**

BARRETT COMPANY  
2926 CHESTER AVE.  
CLEVELAND, OH 44114

**TOLL-FREE NUMBER:** (877) 514-5336  
**MAIN NUMBER:** (440) 605-1020  
**FAX NUMBER:** (440) 605-1120  
**EMERGENCY NUMBER:** (800) 424-9300  
**DATE PREPARED:** June 16, 2020

**Recommended Use:** A component part of commercial waterproofing and roofing systems

**Restrictions on Use:** Should only be used by a Barrett Approved Professional Contractor strictly following Barrett and NRCA specifications and recommendations.

### 2: HAZARDS IDENTIFICATION

Bitumen membrane. Asphalt odor. Under normal use, this product is not expected to create any health or environmental hazard. Inhalation of dust or of asphalt fumes can cause a slight respiratory irritation and/or congestion.

NAME	CAS#	%WEIGHT	EXPOSURE LIMIT (ACGIH)	
			TLV-TWA	TLV-STEL
<b>BITUMINOUS BLEND</b>				
Bitumen	8052-42-4	30-70	0.5mg/m <sup>3</sup> Asphalt fumes	Not established
Oxidized bitumen <sup>1</sup>	64742-93-4	0-20	0.5 mg/m <sup>3</sup> Asphalt fumes	Not established
Self-adhesive membranes contain: Highly hydrotreated naphthenic oil <sup>1</sup>	64742-52-5	0-30	Not established	Not established
Calcium carbonate <sup>1</sup>	471-34-1	0-60	10 mg/m <sup>3</sup>	Not established
Styrene butadiene co-polymer <sup>1</sup>	9003-55-8	0-15	10 mg/m <sup>3</sup>	Not established
FR Products: Calcium borate <sup>1</sup>	1318-33-8	7-15	10 mg/m <sup>3</sup>	Not established
FR Plus products contain: Fire retardant <sup>1</sup>	Proprietary	1-5	2 mg/m <sup>3</sup>	Not established
<b>REINFORCEMENT</b>				
Some products may contain fiberglass, polyester or a mix of glass grid and polyester.				
Polyester mat <sup>1</sup>	N/A	1-7	Not established	Not established
Fiberglass mat <sup>1</sup>	N/A	1-7	Not established	Not established
Contains: Fiberglass filament <sup>1</sup>	65997-17-3	0,5-7	1f/cc	Not established
<b>UNDERFACE AND SURFACE</b>				
Some membranes are protected by sand, talc, mineral granule, silicone paper, polyethylene or polypropylene film, aluminum, copper or stainless steel foil.				
Silicone paper	N/A	6-20	Not established	Not established
Polypropylene film	N/A	2-10	Not established	Not established
Polyethylene film	9002-88-4	2-10	Not established	Not established
Aluminum, copper or stainless steel foil	N/A	4-15	Not established	Not established
Sand	N/A	7-13	0.1 mg/m <sup>3</sup>	Not established
Contains: Crystalline silica <sup>2</sup>	14808-60-7	7-13	0.025 mg/m <sup>3</sup>	Not established
Talc	14807-96-6	7-13	Not established	Not established
Colored granules	N/A	15-40	Not established	Not established
Contains: Crystalline silica <sup>2</sup>	14808-60-7	<12	0.025 mg/ m <sup>3</sup>	Not established

1. Exposure to the product above that limits of exposure is not likely to occur considering its form (incorporated in the mixture and the provided use. The limit of exposure is given for reference only.

2. A proportion of crystalline silica can be present in the sand sprinkled on the top of some membranes. The crystalline silica contained in the sand is not likely to be found in the ambient air in concentration above the limits of exposure since the sand adheres to the surface of the membrane.

#### **EFFECTS OF SHORT TERM (ACUTE) EXPOSURE:**

**Skin Contact:** The product can cause a mechanical irritation of the skin because of its rough surface. If the membrane is torch-applied, asphalt fumes can cause skin irritation. The asphalt fumes can cause an irritation of the skin. The contact with this product at high temperature can cause thermal burns.

**Eye Contact:** The product is not likely to cause effects to the eyes. If the membrane is torch-applied, asphalt fumes can be emitted and cause irritations, redness and conjunctivitis to the eyes. The contact with this product at high temperature can cause thermal burns.

**Inhalation:** The product is not likely to cause effects to the respiratory system. If the membrane is torch-applied, asphalt fumes can be emitted of the product and cause irritations to the nose, the throat and the respiratory tracts, tiredness, headaches, dizziness, nausea and insomnia.

**Ingestion:** Exposure is not likely to occur by this route of entry under normal use of the product.

#### **LONG TERM (CHRONIC) EXPOSURE:**

**Skin Contact:** The repeated or prolonged contact can cause irritation. If the membrane is torch-applied, asphalt fumes can be emitted. The long-term exposure to the asphalt fumes can cause changes of the pigmentation of the skin which can be worsened by sun exposure. (1)

**Inhalation:** If the membrane is torch-applied, asphalt fumes can be inhaled. There are no data on chronic effects of the exposure to asphalt fumes on the lungs.

**Carcinogenicity:** Due to the product form exposure to hazardous dusts or fumes is not expected to occur. Information on carcinogenicity is given for reference only. This product is not classifiable as a carcinogen.

*Bitumen* – According to the International Agency for Research on Cancer (IARC): is not classifiable as to its carcinogenicity to humans. Epidemiological studies on roofers have generally demonstrated an excess of lung cancer in these workers. However, it is unclear to what extent these cancers may be attributable to asphalt exposures during roofing operations, since in the past, roofers have been exposed to coal tar and asbestos, which are known human lung carcinogens. Trace amounts of poly-nuclear aromatic hydrocarbons (PAHs) may be present in asphalt and can be released upon excessive heating. Some of these PAHs have been identified as having the potential to induce carcinogenic and reproductive health effects. (2)

*Oxidized bitumen:* In its 2013 monograph (Volume 103), the International Agency for Research on Cancer (IARC) conducted a review of the potential carcinogenicity of bitumen (the European term for asphalt). One of its conclusions was "occupational exposures to oxidized bitumens and their emissions during roofing" are classified in IARC Group 2A, "probably carcinogenic to humans." However, due to the product form, exposure to such component is unlikely under normal conditions of use. (2)

*Crystalline Silica* – Breathable crystalline silica from sand is not expected to be released because the sand is adhered to the product. According to the IARC, crystalline silica is carcinogenic for human by inhalation. (3)

*Fiberglass Filament* – Fiberglass is not expected to be released. In 2001, the IARC classified fiberglass as Group 3 "not classifiable as to its carcinogenicity to humans". The American Conference of Governmental Industrial Hygienists (ACGIH) and the National Toxicology Program (NTP) classify the product in Group 2B (possibly carcinogenic to humans) based on studies in which animals were injected with large quantities of fiberglass.

*The other ingredients were not found to be carcinogenic or no information is available on that matter.*

**Teratogenicity, Embryotoxicity, Fetotoxicity:** No information available.

**Reproductive Toxicity:** No information available.

**Mutagenicity:** No information available.

**Toxicologically Synergistic Materials:** No information available.

**Potential Accumulation:** No information available.

NAME	CAS#	%WEIGHT
<b><u>BITUMINOUS BLEND</u></b>		
Bitumen	8052-42-4	30-70
Oxidized bitumen <sup>1</sup>	64742-93-4	0-20
Self-adhesive membranes contain: Highly hydrotreated naphthenic oil	64742-52-5	0-30
Calcium carbonate	471-34-1	0-60
Styrene butadiene co-polymer	9003-55-8	0-15
FR Products: Calcium borate <sup>1</sup>	1318-33-8	7-15
FR Plus products contain: Fire retardant <sup>1</sup>	Proprietary	1-5
<b><u>REINFORCEMENT</u></b>		
Some products may contain fiberglass, polyester or a mix of glass grid and polyester.		
Polyester mat <sup>1</sup>	N/A	1-7
Fiberglass mat <sup>1</sup>	N/A	1-7
Contains: Fiberglass filament	65997-17-3	0,5-7
<b><u>UNDERFACE AND SURFACE</u></b>		
Some membranes are protected by sand, talc, mineral granule, silicone paper, polyethylene or polypropylene film, aluminum, copper or stainless steel foil.		
Silicone paper	N/A	6-20
Polypropylene film	N/A	2-10
Polyethylene film	9002-88-4	2-10
Aluminum, copper or stainless steel foil	N/A	4-15
Sand	N/A	7-13
Contains: Crystalline silica	14808-60-7	7-13
Talc	14807-96-6	7-13
Colored granules	N/A	15-40
Contains: Crystalline silica	14808-60-7	<12

1. Exposure to the product above that limits of exposure is not likely to occur considering its form (incorporated in the mixture and the provided use. The limit of exposure is given for reference only.
2. A proportion of crystalline silica can be present in the sand sprinkled on the top of some membranes. The crystalline silica contained in the sand is not likely to be found in the ambient air in concentration above the limits of exposure since the sand adheres to the surface of the membrane.

**Skin Contact** – If there is presence of dust on the skin, wash gently with water and soap. In the event of contact with the product melted, do not try to remove the product off the affected area and rinse the area affected in cold water. Obtain immediate medical attention. At the end of each working day, clean all the parts of the body which came into contact with asphalt fumes. Clean the clothing contaminated by the asphalt fumes.

**Eye Contact** – Flush eyes with water for at least 15 minutes while holding eyelids open. Do not attempt to remove material from affected area without medical assistance. Obtain immediate medical attention.

**Inhalation** – Remove victim from contaminated place and restore breathing, if required.

**Ingestion** – The ingestion of this product is not very likely to occur.

**Flammability** – Not Applicable

**Flash Point** – Not Applicable

**Flammability Limits in Air** – (% in volume) Not Applicable

**Explosion Data** – Not Applicable

**Auto-Ignition Temperature** – Not Applicable



**Fire and Explosion Hazards** – Asphalt fumes are flammable. Torch, used to weld waterproofing membranes, can produce temperatures beyond 2000°F (1100°C). Avoid all contact with materials sensitive to these temperatures, as lead or plastic materials. Never work in an enclosed area where gas can accumulate. Shield air conditioning units and other protrusions on the roof with perlite panels or similar material. Never use torches:

- When substrate(s) have been recently covered by solvent-based products (wait until dry).
- Near any combustible materials.
- Close to containers containing flammable liquids or materials (keep open flame at least 3m [10'] away).
- Directly on combustible substrate or insulation.

Voids, holes or gaps in substrate or located nearby the welding zone must be protected against flame penetration. Particular precautions must be taken to keep combustible or heat sensitive insulation or other materials away from the torch flame. If wood fiber panels must be installed, use fireproof panels. Avoid presence of combustible materials near open flame. At all times and especially when leaving the job site, make sure that there is no smoldering or concealed fire. In that case, strictly follow the safety measures. Job planning must allow employee presence on the roof at least one hour after torch application. At the end of every day, use a heat detector gun to discover any unusually hot surface. Always have one ABC fire extinguisher on hand, filled and in perfect working order near each torch.

**Combustion Products** – burning of this material will produce thick black smoke. Irritating and/or toxic gases (including Hydrogen Sulphide and Sulphur Dioxide, Carbon Dioxide and Carbon Monoxide) and traces of metallic fumes may be generated by thermal decomposition or combustion.

**Fire Fighting Instructions** – Evacuate the area. Wear self-contained breathing apparatus and appropriate protective clothing that are in accordance with standards. Approach fire from upwind and fight it from maximum distance or use unmanned hose holders or monitor nozzles. Always stay away from the containers at the time of the fire considering the high risk of explosion. Move the rolls of membrane from fire area if it can be done without risk. Cool the rolls of membrane with flooding quantities of water until well after fire is out.

Extinguishing Media – Foam, CO<sub>2</sub>, sand, chemical powder.

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**6: ACCIDENTAL RELEASE MEASURES**

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**Release or Spill** – If hot material is spilled, allow enough time to cool completely and remove to a container for disposal. Wear appropriate breathing apparatus (if applicable) and protective clothing. Notify appropriate environmental agencies. Wash spill area with soap and water. Dispose of the material according to local environmental regulations.

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**7: HANDLING AND STORAGE**

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**Handling** – Products must be applied by qualified applicators who have received an adequate training on prevention and protection (in particular for the use of the extinguishers) against accidents caused by use of combustible or flammable materials, of liquefied propane gas, open flame, and their material of installation. The present recommendations must be imperatively related to knowledge of the employees before the application of the products to the building site. Check the construction and the composition of the systems of roof and walls before welding. Ensure of the cleanliness of the places (debris).

**Precautions of the use of the torch:** Use only proper torching equipment in perfect working order (C.S.A certified). Never modify torching equipment. Use only proper hoses suited for propane gas of less than 15m (50'). Verify and tighten all the connections before the use of the equipment. Do not light the torch if a propane odor is present. Never seek a leak with a flame. Use a torch whose gas output is adjustable with stopping device. Follow the specifications, notices and documentations of the manufacturers.

**Storage:** Flashings must be stored in such a way to prevent any creasing, twisting, scratches and other damages of the roof. The materials must be protected adequately and stored permanently away from flames or welding sparks, protected from bad weather and any harmful substances. Store self-adhesive membranes away from the sun.

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**8: EXPOSURE CONTROLS AND PERSONAL PROTECTION**

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**Bitumen membrane. Asphalt odor. Under normal use, this product is not expected to create any health or environmental hazard. Inhalation of dust or of asphalt fumes can cause a slight respiratory irritation and/or congestion.**

NAME	CAS#	EXPOSURE LIMIT (ACGIH)	
		TLV-TWA	TLV-STEL
<b>BITUMINOUS BLEND</b>			
Bitumen	8052-42-4	0.5mg/m <sup>3</sup> Asphalt fumes	Not established
Oxidized bitumen <sup>1</sup>	64742-93-4	0.5 mg/m <sup>3</sup> Asphalt fumes	Not established

Self-adhesive membranes contain: <b>Highly hydrotreated naphthenic oil<sup>1</sup></b>	64742-52-5	Not established	Not established
<b>Calcium carbonate<sup>1</sup></b>	471-34-1	10 mg/m <sup>3</sup>	Not established
<b>Styrene butadiene co-polymer<sup>1</sup></b>	9003-55-8	10 mg/m <sup>3</sup>	Not established
FR Products: <b>Calcium borate<sup>1</sup></b>	1318-33-8	10 mg/m <sup>3</sup>	Not established
FR Plus products contain: <b>Fire retardant<sup>1</sup></b>	Proprietary	2 mg/m <sup>3</sup>	Not established
<b>REINFORCEMENT</b>			
Some products may contain fiberglass, polyester or a mix of glass grid and polyester.			
<b>Polyester mat<sup>1</sup></b>	N/A	Not established	Not established
<b>Fiberglass mat<sup>1</sup></b>	N/A	Not established	Not established
Contains: <b>Fiberglass filament<sup>1</sup></b>	65997-17-3	1f/cc	Not established
<b>UNDERFACE AND SURFACE</b>			
Some membranes are protected by sand, talc, mineral granule, silicone paper, polyethylene or polypropylene film, aluminum, copper or stainless steel foil.			
Silicone paper	N/A	Not established	Not established
Polypropylene film	N/A	Not established	Not established
Polyethylene film	9002-88-4	Not established	Not established
Aluminum, copper or stainless steel foil	N/A	Not established	Not established
<b>Sand</b>	N/A	0.1 mg/m <sup>3</sup>	Not established
Contains: Crystalline silica <sup>2</sup>	14808-60-7	0.025 mg/m <sup>3</sup>	Not established
<b>Talc</b>	14807-96-6	Not established	Not established
Colored granules	N/A	Not established	Not established
Contains: Crystalline silica <sup>2</sup>	14808-60-7	0.025 mg/ m <sup>3</sup>	Not established

1. Exposure to the product above that limits of exposure is not likely to occur considering its form (incorporated in the mixture and the provided use. The limit of exposure is given for reference only.
2. A proportion of crystalline silica can be present in the sand sprinkled on the top of some membranes. The crystalline silica contained in the sand is not likely to be found in the ambient air in concentration above the limits of exposure since the sand adheres to the surface of the membrane.

**Hands:** Wear resistant gloves.

**Respiratory:** If the threshold limit value (TLV) for dust is exceeded and if use is performed in a poorly ventilated confined area, use an approved respirator that is in accordance with standards.

**Eyes:** Wear safety goggles that are in accordance with standards.

**Body:** Wear adequate protective clothes. Do not wear synthetic fabric. Remove clothing contaminated with solvents.

**Other:** Eye bath and safety shower.

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## 9: PHYSICAL AND CHEMICAL PROPERTIES

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**Physical State:** Solid

**Odor Threshold:** Not available

**Vapor Density (air=1):** Not applicable

**Boiling Point (760 mm Hg):** Not applicable

**Specific Gravity (H<sub>2</sub>O=1):** Variable

**Volatile Organic Compound Content (V.O.C.):** Not measurable

**Odor and Appearance:** Black membrane with asphalt odor.

**Vapor pressure (20°C):** Not applicable

**Evaporation Rate (Butyl acetate = 1):** Not applicable

**Freezing Point:** Not applicable

**Solubility in Water (20°C):** None

**Viscosity:** Not applicable

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## 10: STABILITY AND REACTIVITY

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**Stability:** This Material is Stable

**Conditions of Reactivity:** Avoid excessive heat.

**Incompatibility:** Acid and strong basis, organic solvents, and greasy substances.

**Hazardous Decomposition Products:** None identified.

**Hazardous Polymerization:** None

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**11:****TOXICOLOGICAL INFORMATION**

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**Toxological Data:****Natural graphite:** (3)

LC50 (rat): &gt; 64,400 mg/kg

LD50 (oral, rat): &gt; 10,000 mg/kg

**Decabromodiphenyl Oxide:** (1)

LC50 (rat) : &gt; 50 mg/kg

LD50 (oral, rat): &gt; 5,000 mg/kg

LD50 (dermal, rat): &gt; 2,000 mg/kg

**No information is available on other products.****Effects of Short-Term (Acute) Exposure:** No information available.**Effects of Long-Term (Chronic) Exposure:****Carcinogenicity:**

Asphalt – data from experimental studies on animals and cultured mammalian cells indicate that laboratory- generated roofing asphalt fume condensates are genotoxic and cause skin tumors. (2)

Crystalline Silica – Several studies have shown an increased incidence of lung tumors on rats exposed to quartz by inhalation for up to 2 years. The IARC has determined that there is sufficient evidence that quartz is carcinogenic to experimental animals. (3)

**The other ingredients were not found to be carcinogenic or no information is available on that matter****Reproductive Effects:** No information available.**Teratogenicity, Embryotoxicity, Fetotoxicity:** No information available.**Mutagenicity:**

Crystalline Silica – None according to the information available.

**No information available about the other ingredients.****Synergistic Materials:** Tobacco smoke increases the effects of silica dust on respiratory system. Simultaneous exposure to known carcinogens as benzo (a), pyrene can increase the carcinogenicity of crystalline silica.

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**12:****ECOLOGICAL INFORMATION**

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**Environmental Effects:** No data available.**Biodegradability:** This product is not biodegradable. There is no possible bioaccumulation and unlikely bioconcentration in the food chain.

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**13:****DISPOSAL CONSIDERATION**

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**Waste Disposal:** This product is not hazardous waste. Consult local, provincial, territory or state authorities to know disposal methods. This material is not listed by the EPA as hazardous waste according to the Resource Conservation and Recovery Act (RCRA) of the United States. No Environmental Protection Agency (EPA) waste numbers are applicable for this product.

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**14:****TRANSPORT INFORMATION**

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This product is not regulated by the Department of Transportation (DOT) and Transportation Dangerous Goods (TDG).

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**15:****REGULATORY INFORMATION**

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**DSL:** All constituents of this product are included in the Domestic Substances List (DLS) of Canada.**TSCA:** All constituents of this product are listed on the Toxic Substances Control Act Inventory (TSCA - United States).**Prop. 65:** This product contains chemicals known to the State of California to cause cancer or reproductive toxicity.

**Date Prepared:** April 30, 2015

**Supersedes:** August 27, 2014 version

**In this update:** Oxidized bitumen added to Sections 2, 3 and 8.  
GHS format

**Glossary -**

**ACGIH:** American Conference of Governmental Industrial Hygienists (United States)

**ANSI:** American National Standards Institute (United States)

**ASTM:** American Society for Testing and Materials (United States)

**CAS:** Chemical Abstract Services

**CFR:** Code of Federal Regulations (United States)

**CSA:** Canadian Standardization Association

**DOT:** Department of Transportation (United States)

**DSL:** Domestic Substances List (Canada)

**EPA:** Environmental Protection Agency (United States)

**GHS** Globally Harmonized System

**IARC:** International Agency for Research on Cancer

**LD50/LC50:** Less high lethal dose and lethal concentration published

**NFPA:** National Fire Protection Association (United States)

**NIOSH:** National Institute for Occupational Safety and Health (United States)

**NTP:** National Toxicology Program (United States)

**OSHA:** Occupational Safety & Health Administration (United States)

**RCRA:** Resource Conservation and Recovery Act (United States)

**TDG:** Transportation of Dangerous Goods (Canada)

**TLV-TWA:** Threshold Limit Value – Time-Weighted Average

**TSCA: Toxic Substances Control Act (United States)**

**References:**

(1) Safety Data Sheet from the supplier

(2) WHO (2013) Bitumens and bitumen emissions, and some N- and S- heterocyclic polycyclic aromatic hydrocarbons. Volume 103.  
IARC monographs on the evaluation of carcinogenic risks to humans.

(3) CHEMINFO (2015) Canadian Centre of Occupational Health and Safety, Hamilton (Ontario) Canada

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# SAFETY DATA SHEET

## IDENTIFICATION AND EMERGENCY INFORMATION

**PRODUCT NAME:** Ram 200, 201, 203

**MANUFACTURER:**

BARRETT COMPANY  
2926 CHESTER AVE.  
CLEVELAND, OH 44114

**TOLL-FREE NUMBER:** (877) 514-5336  
**MAIN NUMBER:** (440) 605-1020  
**FAX NUMBER:** (440) 605-1120  
**EMERGENCY NUMBER:** (800) 424-9300  
**DATE PREPARED:** June 16, 2020

**Recommended Use:** A component part of commercial waterproofing and roofing systems

**Restrictions on Use:** Should only be used by a Barrett Approved Professional Contractor strictly following Barrett and NRCA specifications and recommendations.

**2: HAZARDS IDENTIFICATION**

Bitumen membrane. Asphalt odor. Under normal use, this product is not expected to create any health or environmental hazard. Inhalation of dust or of asphalt fumes can cause a slight respiratory irritation and/or congestion.

NAME	CAS#	%WEIGHT	EXPOSURE LIMIT (ACGIH)	
			TLV-TWA	TLV-STEL
<b>BITUMINOUS BLEND</b>				
Bitumen	8052-42-4	30-70	0.5mg/m <sup>3</sup> Asphalt fumes	Not established
Oxidized bitumen <sup>1</sup>	64742-93-4	0-20	0.5 mg/m <sup>3</sup> Asphalt fumes	Not established
Self-adhesive membranes contain: Highly hydrotreated naphthenic oil <sup>1</sup>	64742-52-5	0-30	Not established	Not established
Calcium carbonate <sup>1</sup>	471-34-1	0-60	10 mg/m <sup>3</sup>	Not established
Styrene butadiene co-polymer <sup>1</sup>	9003-55-8	0-15	10 mg/m <sup>3</sup>	Not established
FR Products: Calcium borate <sup>1</sup>	1318-33-8	7-15	10 mg/m <sup>3</sup>	Not established
FR Plus products contain: Fire retardant <sup>1</sup>	Proprietary	1-5	2 mg/m <sup>3</sup>	Not established
<b>REINFORCEMENT</b>				
Some products may contain fiberglass, polyester or a mix of glass grid and polyester.				
Polyester mat <sup>1</sup>	N/A	1-7	Not established	Not established
Fiberglass mat <sup>1</sup>	N/A	1-7	Not established	Not established
Contains: Fiberglass filament <sup>1</sup>	65997-17-3	0,5-7	1f/cc	Not established
<b>UNDERFACE AND SURFACE</b>				
Some membranes are protected by sand, talc, mineral granule, silicone paper, polyethylene or polypropylene film, aluminum, copper or stainless steel foil.				
Silicone paper	N/A	6-20	Not established	Not established
Polypropylene film	N/A	2-10	Not established	Not established
Polyethylene film	9002-88-4	2-10	Not established	Not established
Aluminum, copper or stainless steel foil	N/A	4-15	Not established	Not established
Sand	N/A	7-13	0.1 mg/m <sup>3</sup>	Not established
Contains: Crystalline silica <sup>2</sup>	14808-60-7	7-13	0.025 mg/m <sup>3</sup>	Not established
Talc	14807-96-6	7-13	Not established	Not established
Colored granules	N/A	15-40	Not established	Not established
Contains: Crystalline silica <sup>2</sup>	14808-60-7	<12	0.025 mg/ m <sup>3</sup>	Not established

1. Exposure to the product above that limits of exposure is not likely to occur considering its form (incorporated in the mixture and the provided use. The limit of exposure is given for reference only.

2. A proportion of crystalline silica can be present in the sand sprinkled on the top of some membranes. The crystalline silica contained in the sand is not likely to be found in the ambient air in concentration above the limits of exposure since the sand adheres to the surface of the membrane.

#### **EFFECTS OF SHORT TERM (ACUTE) EXPOSURE:**

**Skin Contact:** The product can cause a mechanical irritation of the skin because of its rough surface. If the membrane is torch-applied, asphalt fumes can cause skin irritation. The asphalt fumes can cause an irritation of the skin. The contact with this product at high temperature can cause thermal burns.

**Eye Contact:** The product is not likely to cause effects to the eyes. If the membrane is torch-applied, asphalt fumes can be emitted and cause irritations, redness and conjunctivitis to the eyes. The contact with this product at high temperature can cause thermal burns.

**Inhalation:** The product is not likely to cause effects to the respiratory system. If the membrane is torch-applied, asphalt fumes can be emitted of the product and cause irritations to the nose, the throat and the respiratory tracts, tiredness, headaches, dizziness, nausea and insomnia.

**Ingestion:** Exposure is not likely to occur by this route of entry under normal use of the product.

#### **LONG TERM (CHRONIC) EXPOSURE:**

**Skin Contact:** The repeated or prolonged contact can cause irritation. If the membrane is torch-applied, asphalt fumes can be emitted. The long-term exposure to the asphalt fumes can cause changes of the pigmentation of the skin which can be worsened by sun exposure. (1)

**Inhalation:** If the membrane is torch-applied, asphalt fumes can be inhaled. There are no data on chronic effects of the exposure to asphalt fumes on the lungs.

**Carcinogenicity:** Due to the product form exposure to hazardous dusts or fumes is not expected to occur. Information on carcinogenicity is given for reference only. This product is not classifiable as a carcinogen.

*Bitumen* – According to the International Agency for Research on Cancer (IARC): is not classifiable as to its carcinogenicity to humans. Epidemiological studies on roofers have generally demonstrated an excess of lung cancer in these workers. However, it is unclear to what extent these cancers may be attributable to asphalt exposures during roofing operations, since in the past, roofers have been exposed to coal tar and asbestos, which are known human lung carcinogens. Trace amounts of poly-nuclear aromatic hydrocarbons (PAHs) may be present in asphalt and can be released upon excessive heating. Some of these PAHs have been identified as having the potential to induce carcinogenic and reproductive health effects. (2)

*Oxidized bitumen:* In its 2013 monograph (Volume 103), the International Agency for Research on Cancer (IARC) conducted a review of the potential carcinogenicity of bitumen (the European term for asphalt). One of its conclusions was "occupational exposures to oxidized bitumens and their emissions during roofing" are classified in IARC Group 2A, "probably carcinogenic to humans." However, due to the product form, exposure to such component is unlikely under normal conditions of use. (2)

*Crystalline Silica* – Breathable crystalline silica from sand is not expected to be released because the sand is adhered to the product. According to the IARC, crystalline silica is carcinogenic for human by inhalation. (3)

*Fiberglass Filament* – Fiberglass is not expected to be released. In 2001, the IARC classified fiberglass as Group 3 "not classifiable as to its carcinogenicity to humans". The American Conference of Governmental Industrial Hygienists (ACGIH) and the National Toxicology Program (NTP) classify the product in Group 2B (possibly carcinogenic to humans) based on studies in which animals were injected with large quantities of fiberglass.

*The other ingredients were not found to be carcinogenic or no information is available on that matter.*

**Teratogenicity, Embryotoxicity, Fetotoxicity:** No information available.

**Reproductive Toxicity:** No information available.

**Mutagenicity:** No information available.

**Toxicologically Synergistic Materials:** No information available.

**Potential Accumulation:** No information available.

NAME	CAS#	%WEIGHT
<b><u>BITUMINOUS BLEND</u></b>		
Bitumen	8052-42-4	30-70
Oxidized bitumen <sup>1</sup>	64742-93-4	0-20
Self-adhesive membranes contain: Highly hydrotreated naphthenic oil	64742-52-5	0-30
Calcium carbonate	471-34-1	0-60
Styrene butadiene co-polymer	9003-55-8	0-15
FR Products: Calcium borate <sup>1</sup>	1318-33-8	7-15
FR Plus products contain: Fire retardant <sup>1</sup>	Proprietary	1-5
<b><u>REINFORCEMENT</u></b>		
Some products may contain fiberglass, polyester or a mix of glass grid and polyester.		
Polyester mat <sup>1</sup>	N/A	1-7
Fiberglass mat <sup>1</sup>	N/A	1-7
Contains: Fiberglass filament	65997-17-3	0,5-7
<b><u>UNDERFACE AND SURFACE</u></b>		
Some membranes are protected by sand, talc, mineral granule, silicone paper, polyethylene or polypropylene film, aluminum, copper or stainless steel foil.		
Silicone paper	N/A	6-20
Polypropylene film	N/A	2-10
Polyethylene film	9002-88-4	2-10
Aluminum, copper or stainless steel foil	N/A	4-15
Sand	N/A	7-13
Contains: Crystalline silica	14808-60-7	7-13
Talc	14807-96-6	7-13
Colored granules	N/A	15-40
Contains: Crystalline silica	14808-60-7	<12

1. Exposure to the product above that limits of exposure is not likely to occur considering its form (incorporated in the mixture and the provided use. The limit of exposure is given for reference only.
2. A proportion of crystalline silica can be present in the sand sprinkled on the top of some membranes. The crystalline silica contained in the sand is not likely to be found in the ambient air in concentration above the limits of exposure since the sand adheres to the surface of the membrane.

**Skin Contact** – If there is presence of dust on the skin, wash gently with water and soap. In the event of contact with the product melted, do not try to remove the product off the affected area and rinse the area affected in cold water. Obtain immediate medical attention. At the end of each working day, clean all the parts of the body which came into contact with asphalt fumes. Clean the clothing contaminated by the asphalt fumes.

**Eye Contact** – Flush eyes with water for at least 15 minutes while holding eyelids open. Do not attempt to remove material from affected area without medical assistance. Obtain immediate medical attention.

**Inhalation** – Remove victim from contaminated place and restore breathing, if required.

**Ingestion** – The ingestion of this product is not very likely to occur.

**Flammability** – Not Applicable

**Flash Point** – Not Applicable

**Flammability Limits in Air** – (% in volume) Not Applicable

**Explosion Data** – Not Applicable

**Auto-Ignition Temperature** – Not Applicable

**Fire and Explosion Hazards** – Asphalt fumes are flammable. Torch, used to weld waterproofing membranes, can produce temperatures beyond 2000°F (1100°C). Avoid all contact with materials sensitive to these temperatures, as lead or plastic materials. Never work in an enclosed area where gas can accumulate. Shield air conditioning units and other protrusions on the roof with perlite panels or similar material. Never use torches:

- When substrate(s) have been recently covered by solvent-based products (wait until dry).
- Near any combustible materials.
- Close to containers containing flammable liquids or materials (keep open flame at least 3m [10'] away).
- Directly on combustible substrate or insulation.

Voids, holes or gaps in substrate or located nearby the welding zone must be protected against flame penetration. Particular precautions must be taken to keep combustible or heat sensitive insulation or other materials away from the torch flame. If wood fiber panels must be installed, use fireproof panels. Avoid presence of combustible materials near open flame. At all times and especially when leaving the job site, make sure that there is no smoldering or concealed fire. In that case, strictly follow the safety measures. Job planning must allow employee presence on the roof at least one hour after torch application. At the end of every day, use a heat detector gun to discover any unusually hot surface. Always have one ABC fire extinguisher on hand, filled and in perfect working order near each torch.

**Combustion Products** – burning of this material will produce thick black smoke. Irritating and/or toxic gases (including Hydrogen Sulphide and Sulphur Dioxide, Carbon Dioxide and Carbon Monoxide) and traces of metallic fumes may be generated by thermal decomposition or combustion.

**Fire Fighting Instructions** – Evacuate the area. Wear self-contained breathing apparatus and appropriate protective clothing that are in accordance with standards. Approach fire from upwind and fight it from maximum distance or use unmanned hose holders or monitor nozzles. Always stay away from the containers at the time of the fire considering the high risk of explosion. Move the rolls of membrane from fire area if it can be done without risk. Cool the rolls of membrane with flooding quantities of water until well after fire is out.

Extinguishing Media – Foam, CO<sub>2</sub>, sand, chemical powder.

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**6: ACCIDENTAL RELEASE MEASURES**

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**Release or Spill** – If hot material is spilled, allow enough time to cool completely and remove to a container for disposal. Wear appropriate breathing apparatus (if applicable) and protective clothing. Notify appropriate environmental agencies. Wash spill area with soap and water. Dispose of the material according to local environmental regulations.

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**7: HANDLING AND STORAGE**

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**Handling** – Products must be applied by qualified applicators who have received an adequate training on prevention and protection (in particular for the use of the extinguishers) against accidents caused by use of combustible or flammable materials, of liquefied propane gas, open flame, and their material of installation. The present recommendations must be imperatively related to knowledge of the employees before the application of the products to the building site. Check the construction and the composition of the systems of roof and walls before welding. Ensure of the cleanliness of the places (debris).

**Precautions of the use of the torch:** Use only proper torching equipment in perfect working order (C.S.A certified). Never modify torching equipment. Use only proper hoses suited for propane gas of less than 15m (50'). Verify and tighten all the connections before the use of the equipment. Do not light the torch if a propane odor is present. Never seek a leak with a flame. Use a torch whose gas output is adjustable with stopping device. Follow the specifications, notices and documentations of the manufacturers.

**Storage:** Flashings must be stored in such a way to prevent any creasing, twisting, scratches and other damages of the roof. The materials must be protected adequately and stored permanently away from flames or welding sparks, protected from bad weather and any harmful substances. Store self-adhesive membranes away from the sun.

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**8: EXPOSURE CONTROLS AND PERSONAL PROTECTION**

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**Bitumen membrane. Asphalt odor. Under normal use, this product is not expected to create any health or environmental hazard. Inhalation of dust or of asphalt fumes can cause a slight respiratory irritation and/or congestion.**

NAME	CAS#	EXPOSURE LIMIT (ACGIH)	
		TLV-TWA	TLV-STEL
<b>BITUMINOUS BLEND</b>			
Bitumen	8052-42-4	0.5mg/m <sup>3</sup> Asphalt fumes	Not established
Oxidized bitumen <sup>1</sup>	64742-93-4	0.5 mg/m <sup>3</sup> Asphalt fumes	Not established



Self-adhesive membranes contain: <b>Highly hydrotreated naphthenic oil<sup>1</sup></b>	64742-52-5	Not established	Not established
<b>Calcium carbonate<sup>1</sup></b>	471-34-1	10 mg/m <sup>3</sup>	Not established
<b>Styrene butadiene co-polymer<sup>1</sup></b>	9003-55-8	10 mg/m <sup>3</sup>	Not established
FR Products: <b>Calcium borate<sup>1</sup></b>	1318-33-8	10 mg/m <sup>3</sup>	Not established
FR Plus products contain: <b>Fire retardant<sup>1</sup></b>	Proprietary	2 mg/m <sup>3</sup>	Not established
<b>REINFORCEMENT</b>			
Some products may contain fiberglass, polyester or a mix of glass grid and polyester.			
<b>Polyester mat<sup>1</sup></b>	N/A	Not established	Not established
<b>Fiberglass mat<sup>1</sup></b>	N/A	Not established	Not established
Contains: <b>Fiberglass filament<sup>1</sup></b>	65997-17-3	1f/cc	Not established
<b>UNDERFACE AND SURFACE</b>			
Some membranes are protected by sand, talc, mineral granule, silicone paper, polyethylene or polypropylene film, aluminum, copper or stainless steel foil.			
Silicone paper	N/A	Not established	Not established
Polypropylene film	N/A	Not established	Not established
Polyethylene film	9002-88-4	Not established	Not established
Aluminum, copper or stainless steel foil	N/A	Not established	Not established
<b>Sand</b>	N/A	0.1 mg/m <sup>3</sup>	Not established
Contains: Crystalline silica <sup>2</sup>	14808-60-7	0.025 mg/m <sup>3</sup>	Not established
<b>Talc</b>	14807-96-6	Not established	Not established
Colored granules	N/A	Not established	Not established
Contains: Crystalline silica <sup>2</sup>	14808-60-7	0.025 mg/ m <sup>3</sup>	Not established

1. Exposure to the product above that limits of exposure is not likely to occur considering its form (incorporated in the mixture and the provided use. The limit of exposure is given for reference only.
2. A proportion of crystalline silica can be present in the sand sprinkled on the top of some membranes. The crystalline silica contained in the sand is not likely to be found in the ambient air in concentration above the limits of exposure since the sand adheres to the surface of the membrane.

**Hands:** Wear resistant gloves.

**Respiratory:** If the threshold limit value (TLV) for dust is exceeded and if use is performed in a poorly ventilated confined area, use an approved respirator that is in accordance with standards.

**Eyes:** Wear safety goggles that are in accordance with standards.

**Body:** Wear adequate protective clothes. Do not wear synthetic fabric. Remove clothing contaminated with solvents.

**Other:** Eye bath and safety shower.

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## 9: PHYSICAL AND CHEMICAL PROPERTIES

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**Physical State:** Solid

**Odor Threshold:** Not available

**Vapor Density (air=1):** Not applicable

**Boiling Point (760 mm Hg):** Not applicable

**Specific Gravity (H<sub>2</sub>O=1):** Variable

**Volatile Organic Compound Content (V.O.C.):** Not measurable

**Odor and Appearance:** Black membrane with asphalt odor.

**Vapor pressure (20°C):** Not applicable

**Evaporation Rate (Butyl acetate = 1):** Not applicable

**Freezing Point:** Not applicable

**Solubility in Water (20°C):** None

**Viscosity:** Not applicable

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## 10: STABILITY AND REACTIVITY

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**Stability:** This Material is Stable

**Conditions of Reactivity:** Avoid excessive heat.

**Incompatibility:** Acid and strong basis, organic solvents, and greasy substances.

**Hazardous Decomposition Products:** None identified.

**Hazardous Polymerization:** None

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**11:****TOXICOLOGICAL INFORMATION**

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**Toxological Data:****Natural graphite:** (3)

LC50 (rat): &gt; 64,400 mg/kg

LD50 (oral, rat): &gt; 10,000 mg/kg

**Decabromodiphenyl Oxide:** (1)

LC50 (rat) : &gt; 50 mg/kg

LD50 (oral, rat): &gt; 5,000 mg/kg

LD50 (dermal, rat): &gt; 2,000 mg/kg

**No information is available on other products.****Effects of Short-Term (Acute) Exposure:** No information available.**Effects of Long-Term (Chronic) Exposure:****Carcinogenicity:**

Asphalt – data from experimental studies on animals and cultured mammalian cells indicate that laboratory- generated roofing asphalt fume condensates are genotoxic and cause skin tumors. (2)

Crystalline Silica – Several studies have shown an increased incidence of lung tumors on rats exposed to quartz by inhalation for up to 2 years. The IARC has determined that there is sufficient evidence that quartz is carcinogenic to experimental animals. (3)

**The other ingredients were not found to be carcinogenic or no information is available on that matter****Reproductive Effects:** No information available.**Teratogenicity, Embryotoxicity, Fetotoxicity:** No information available.**Mutagenicity:**

Crystalline Silica – None according to the information available.

**No information available about the other ingredients.****Synergistic Materials:** Tobacco smoke increases the effects of silica dust on respiratory system. Simultaneous exposure to known carcinogens as benzo (a), pyrene can increase the carcinogenicity of crystalline silica.

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**12:****ECOLOGICAL INFORMATION**

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**Environmental Effects:** No data available.**Biodegradability:** This product is not biodegradable. There is no possible bioaccumulation and unlikely bioconcentration in the food chain.

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**13:****DISPOSAL CONSIDERATION**

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**Waste Disposal:** This product is not hazardous waste. Consult local, provincial, territory or state authorities to know disposal methods. This material is not listed by the EPA as hazardous waste according to the Resource Conservation and Recovery Act (RCRA) of the United States. No Environmental Protection Agency (EPA) waste numbers are applicable for this product.

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**14:****TRANSPORT INFORMATION**

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This product is not regulated by the Department of Transportation (DOT) and Transportation Dangerous Goods (TDG).

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**15:****REGULATORY INFORMATION**

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**DSL:** All constituents of this product are included in the Domestic Substances List (DLS) of Canada.**TSCA:** All constituents of this product are listed on the Toxic Substances Control Act Inventory (TSCA - United States).**Prop. 65:** This product contains chemicals known to the State of California to cause cancer or reproductive toxicity.

**Date Prepared:** April 30, 2015

**Supersedes:** August 27, 2014 version

**In this update:** Oxidized bitumen added to Sections 2, 3 and 8.  
GHS format

**Glossary -**

**ACGIH:** American Conference of Governmental Industrial Hygienists (United States)

**ANSI:** American National Standards Institute (United States)

**ASTM:** American Society for Testing and Materials (United States)

**CAS:** Chemical Abstract Services

**CFR:** Code of Federal Regulations (United States)

**CSA:** Canadian Standardization Association

**DOT:** Department of Transportation (United States)

**DSL:** Domestic Substances List (Canada)

**EPA:** Environmental Protection Agency (United States)

**GHS** Globally Harmonized System

**IARC:** International Agency for Research on Cancer

**LD50/LC50:** Less high lethal dose and lethal concentration published

**NFPA:** National Fire Protection Association (United States)

**NIOSH:** National Institute for Occupational Safety and Health (United States)

**NTP:** National Toxicology Program (United States)

**OSHA:** Occupational Safety & Health Administration (United States)

**RCRA:** Resource Conservation and Recovery Act (United States)

**TDG:** Transportation of Dangerous Goods (Canada)

**TLV-TWA:** Threshold Limit Value – Time-Weighted Average

**TSCA: Toxic Substances Control Act (United States)**

**References:**

(1) Safety Data Sheet from the supplier

(2) WHO (2013) Bitumens and bitumen emissions, and some N- and S- heterocyclic polycyclic aromatic hydrocarbons. Volume 103.  
IARC monographs on the evaluation of carcinogenic risks to humans.

(3) CHEMINFO (2015) Canadian Centre of Occupational Health and Safety, Hamilton (Ontario) Canada

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# SAFETY DATA SHEET

## IDENTIFICATION AND EMERGENCY INFORMATION

**PRODUCT NAME:** PolyFelt 125

**MANUFACTURER:**

BARRETT COMPANY  
33 STONE HOUSE ROAD  
MILLINGTON, NJ 07946-0421

**EMERGENCY NUMBER:** 800-424-9300  
**INFORMATION NUMBER:** 800-647-0100  
**DATE PREPARED:** May 6, 2020

## GENERAL INFORMATION

**SDS**

Safety Data Sheets (SDS) are not required for the above named products. Please note the following regulator information:

**OSHA Hazard Communication Standard**

The above named products, supplied by Barrett Company are, to the best of our knowledge, legally deemed as “articles” and as such are exempt from the Code of Federal Regulations, Title 29, Chapter XVII, Part 1910. Subpart Z, Section 1910.1200 of the OSHA Hazard Communication Standard. Safety Data Sheets are not required of non-hazardous goods deemed as “articles”.

**SARA 313 Information**

To the best of our knowledge, the above named products contain no chemical subject to SARA Title III Section 313 supplier notification requirements.

**Department of Transportation (DOT)**

The above named products, supplied by Barrett Company are, to the best of our knowledge, not regulated by D.O.T. when shipped domestically by land.

**Canadian WHMIS Information**

None of the above named products are, to the best of our knowledge, a “Controlled Product” under WHMIS.

**Canadian TDG Information**

For guidance, the Transportation of Dangerous Goods Classification for this product is: Not Regulated.

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