Arco Construction Inc.
15 Fairfield Place
West Caldwell NJ 07006

Submittal Coversheet

Contractor: Arco Construction Inc.
Address: 15 Fairfield Place
West Caldwell, NJ 07006

Submittal Number: 01
Submittal Date: October 23, 2023

X 1st 2nd 3rd 4th 5th
SUBMISSION (Check One)

Comments:

PROJECT IDENTIFICATION:

Name: Bergen County CC, Pitkin Education Center
Science Wing Partial Roof Replacement

Owner: Bergen County Community College
Address: 400 Paramus Road
Paramus, NJ 07417

Architect: RSC Architects, Hackensack, NJ

Specification Section:

No. & Title: Multiiple: Roof System Materials Safety Data Sheets, Local Permits, Safety Permits, Schedule

Paragraph:

Generic Name:

Manufacturer: Simon Roofing Products

Return Date:

Sub-Contractor:

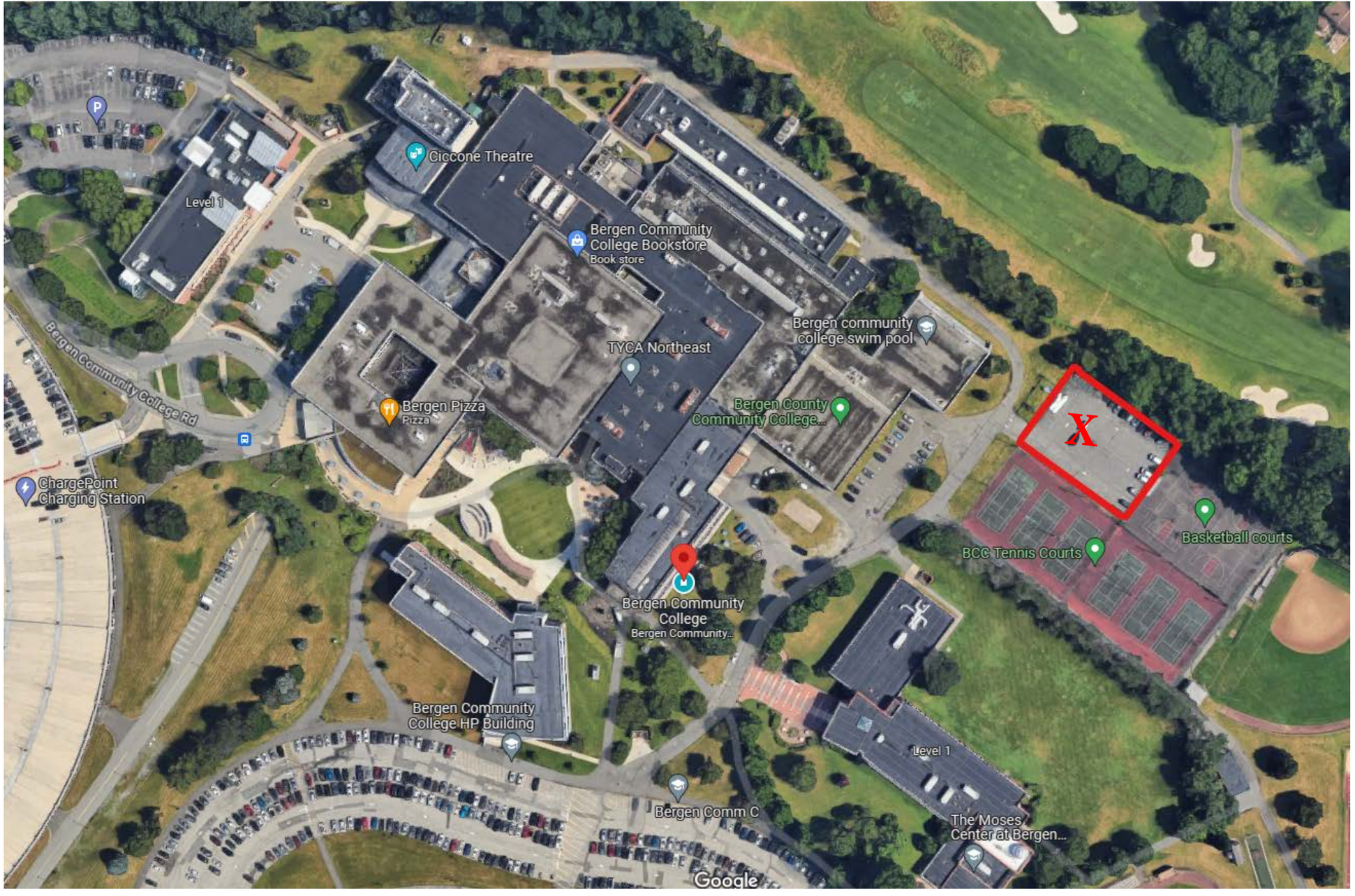
Supplier: Simon Roofing Products, Passaic Metal Corp.

No. of Copies: ONE

Is this a Substitution: NO

If yes, include Matrix Comparison. If Matrix Comparison has not been included, provide reason why:

Additional Comments or Details: Additional submittals to follow as soon as possible.



Proposed Material Staging in Red.

Roof membrane materials to be delivered approximately one week after approval of staging area.

***ARCO will be submitting a proposed project schedule with a start date of 10/30/23 for Ballast Removal.**

Demolition and installation would then begin the following week, beginning November 6th.

Full Project Schedule and Staging Map to be submitted by 10/20/23.

ARCO

Commercial & Industrial Roofing Contractor

BOROUGH ORDINANCE 191-10.C
WORK HOURS
MONDAY-SATURDAY 7:00AM - 7:00PM

BUILDING DEPT. 201-265-2100 EXT. 2230

NEW JERSEY UNIFORM CONSTRUCTION CODE

Date Issued 10/11/23
Control #
Permit # 23-1499

CONSTRUCTION PERMIT NOTICE

Block 3001 Lot _____ Qualification Code _____

Work Site Location: Bergen Community College
Pitkin Education Center

AUTHORIZED FOR:

- ☐ BUILDING
- ☐ ELECTRICAL
- ☐ PLUMBING
- ☐ FIRE PROTECTION
- ☐ ELEVATOR DEVICES
- ☐ DEMOLITION
- ☐ OTHER _____

Description of Work: Roofing

This notice shall be posted conspicuously at the work site and shall remain so until issuance of a certificate.

U.C.C. F180
(rev. 3/03)

NATIONAL ROOFING CONTRACTORS ASSOCIATION MEMBER

www.arcoroof.com
15 Fairfield Place
West Caldwell, NJ 07006
T. (973) 575-5200
F. (973) 575-5210

CONSTRUCTION PERMIT

NEW JERSEY UNIFORM CONSTRUCTION CODE

69209

Date Issued 10/11/23

Permit # 23-1499

Received ... 10/11/23

Issued ... # 23-1499

IDENTIFICATION Block 3001 Lot 1 Qualification Code

Work Site Location 460 Cranes Road

Owner in Fee

Address

Tel. (201) 447-7100, 201-447-7107

Contractor

Address 15 Fairfield Place West Caldwell, NJ 07006

Tel. (973) 571-5200

Lic. No. or Bldrs. Reg. No.

Is hereby granted permission to perform the following work:

[ ] BUILDING [ ] PLUMBING [ ] LEAD HAZARD ABATEMENT

[ ] ELECTRICAL [ ] FIRE PROTECTION [ ] DEMOLITION

[ ] ELEVATOR DEVICES [ ] ASBESTOS ABATEMENT (Subchapter 8 only) [ ] OTHER

DESCRIPTION OF WORK:

24,500/SF

NOTE: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work $

MTO

Construction Official

10/4/23

Date

PAYMENTS (Office Use Only)

Building

Electrical

Plumbing

Fire Protection

Elevator Devices

Other

DCA State Permit Fee

Cert. of Occupancy

Other

Total

Check No.

Cash

Collected by

(see reverse side)

FEE (Office Use Only)

$

U.C.C. F170 (rev. 01/04)

1 WHITE—INSPECTOR 2 CANARY—OFFICE 3 PINK—TAX ASSESSOR 4 GOLD—APPLICANT

Approved by:

SUBCODE APPROVAL for CERTIFICATE

[ ] CO [ ] CCO [ ] CA

Date:

Approved by:

Energy				
Mechanical				
TCO				
Other				
Final				
Barrier-Free				

[ ] Sign Sq. Ft.

[ ] Pool

[ ] Retaining Wall Sq. Ft.

[ ] Asbestos Abatement Subchapter 8

[ ] Lead Haz. Abatement NJAC 5:17

[ ] Radon Remediation

[ ] Other

[ ] Demolition

B. BUILDING CHARACTERISTICS

Use Group Present Proposed

No. of Stories

Height of Structure ft.

Area — Largest Floor sq. ft.

New Bldg. Area/All Floors sq. ft.

Volume of New Structure cu. ft.

Max. Live Load

Max. Occupancy Load

Constr. Class Present X Proposed

If Industrialized Building:

State Approved HUD

Est. Cost of Bldg. Work:

1. New Bldg. $
2. Rehabilitation $
3. Total (1+ 2) $

Administrative Surcharge $

Minimum Fee $

State Permit Surcharge Fee $

TOTAL FEE $

U.C.C. F110 (rev. 12/07)

1 White = Inspector Copy 2 Canary = Office Copy

3 Pink = Office Copy 4 Gold = Applicant Copy

BUILDING SUBCODE
TECHNICAL SECTION

Date Received
Control #

Date Issued
Permit #

ENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING NTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block _____ Lot _____ Qualification Code _____

Work Site Location _____

Owner in Fee: _____

Tel. ( ) _____ e-mail _____

Address _____
street municipality zip code

Contractor: _____ Tel. ( ) _____

Address _____ e-mail _____

Contractor License No. or Builder Registration No. _____ Exp. Date _____

Home Improvement Contractor Registration No. or Exemption Reason (if applicable): _____

Federal Emp. ID No. _____ FAX: ( ) _____

JOB SUMMARY (Office Use Only)

PLAN REVIEW	Date	Initial
[ ] No Plans Required		
[ ] All		
[ ] Footings/Foundations		
[ ] Structural/Framework		
[ ] Exterior		
[ ] Interior		

Joint Plan Review Required:
[ ] Elec. [ ] Plumb. [ ] Fire [ ] Elevator

SUBCODE APPROVAL for PERMIT
Date: _____
Approved by: _____

SUBCODE APPROVAL for CERTIFICATE
[ ] CO [ ] CCO [ ] CA
Date: _____
Approved by: _____

INSPECTIONS Type:	Failure	Failure	Approval	Initial
	Dates (Month/Day)			
Footing				
Footing Bonding				
Foundation				
Slab				
Frame				
Truss Sys./Bracing				
Barrier-Free				
Insulation				
Finishes -Base Layer				
Finishes -Final				
Energy				
Mechanical				
TCO				
Other				
Final				
Barrier-Free				

B. BUILDING CHARACTERISTICS

Use Group Present _____ Proposed _____
No. of Stories _____
Height of Structure _____ ft.
Area — Largest Floor _____ sq. ft.
New Bldg. Area/All Floors _____ sq. ft.
Volume of New Structure _____ cu. ft.
Max. Live Load _____
Max. Occupancy Load _____

Constr. Class Present _____ Proposed _____
If Industrialized Building:
State Approved _____ HUD _____

Est. Cost of Bldg. Work:
1. New Bldg. $ _____
2. Rehabilitation $ _____
3. Total (1+ 2) $ _____

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

_____
Signature

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK

TYPE OF WORK:
[ ] New Building
[ ] Addition
[ ] Rehabilitation
[ ] Roofing
[ ] Siding
[ ] Fence _____ Height (exceeds 6')
[ ] Sign _____ Sq. Ft.
[ ] Pool
[ ] Retaining Wall _____ Sq. Ft.
[ ] Asbestos Abatement Subchapter 8
[ ] Lead Haz. Abatement NJAC 5:17
[ ] Radon Remediation
[ ] Other _____
[ ] Demolition

FEE (Office Use Only)
$ _____

Administrative Surcharge $ _____
Minimum Fee $ _____
State Permit Surcharge Fee $ _____
TOTAL FEE $ _____

U.C.C. F110
(rev. 12/07)

1 White = Inspector Copy
2 Canary = Office Copy
3 Pink = Office Copy
4 Gold = Applicant Copy

BERGEN COUNTY FIRE MARSHAL'S OFFICE
DEPARTMENT OF PUBLIC SAFETY
281 CAMPGAW ROAD
MAHWAH, NEW JERSEY 07430
TEL 201-785-5718
FAX 201-785-6036

FIRE SAFETY PERMIT

PERMIT

231017-001
HOT WORKS

LOCATION INFORMATION

NAME:	STREET ADDRESS:
Bergen Community College	400 Paramus Rd
CITY: Paramus	STATE: New Jersey
ZIP: 07652	
TELEPHONE #:	FAX #:

PERMIT TYPE: 1
PERMIT FEE: 54.00
REGISTRATION NUMBER:
DATE OF EVENT: Nov. 8 2023

EXPIRATION DATE: Dec 31 2023

NATURE OF ACTIVITY: Hot works, OPEN Flame, Torch
LOCATION OF PERMITTED ACTIVITY:

APPROVAL CONTINGENT ON THE FOLLOWING CONDITIONS: NJ Fire Code, NFPA, List of conditions - Hot works Permit check List

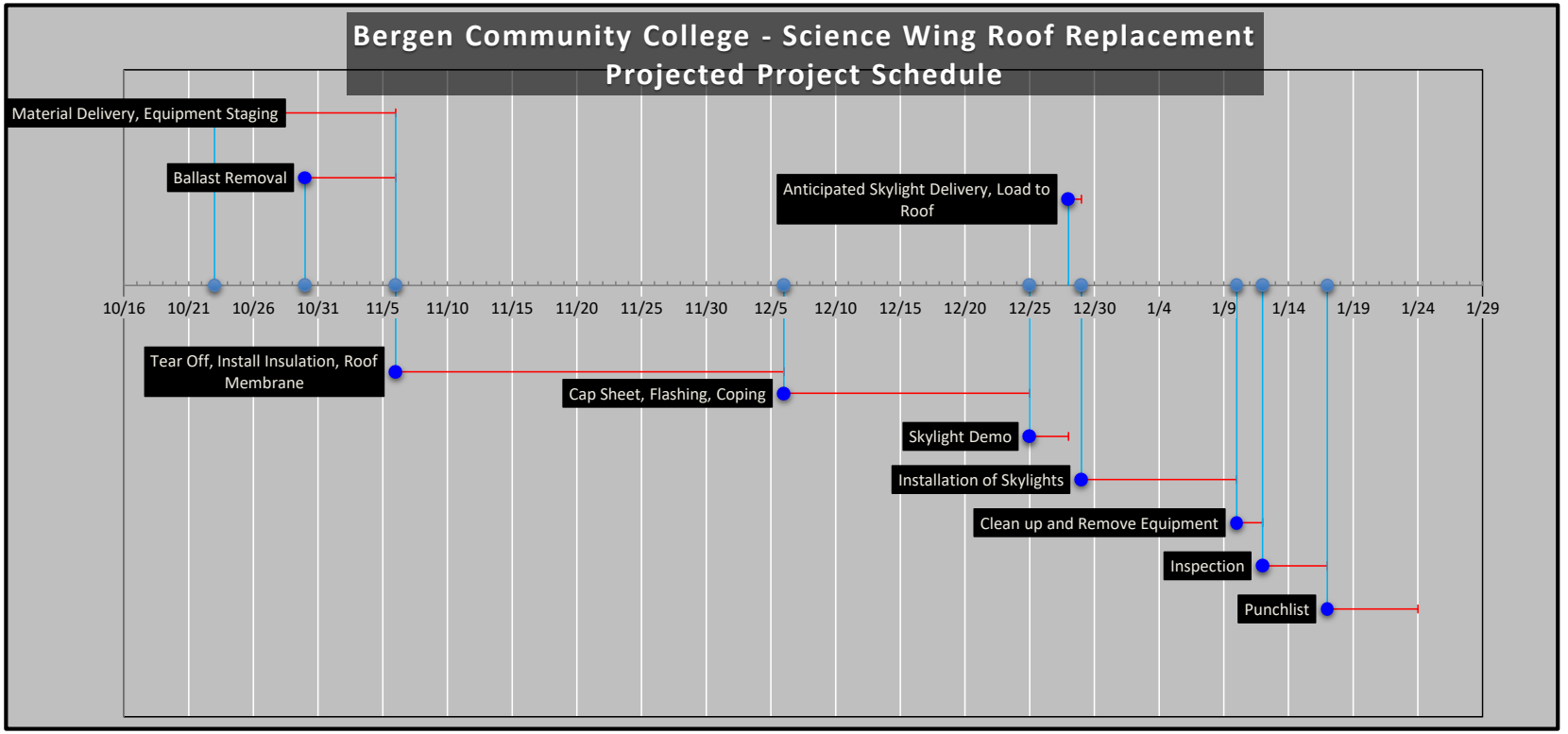
FIRE MARSHAL:	DATE ISSUED:
Timothy H Ferguson	October 17, 2023

BERGEN COUNTY FIRE MARSHAL'S OFFICE
DEPARTMENT OF PUBLIC SAFETY
281 CAMPGAW ROAD
MAHWAH, NEW JERSEY 07430
TEL 201-785-5718
FAX 201-785-6036

HOT WORK PERMIT CHECKLIST

A Hot Work Permit is required for any Temporary operation involving open flames or producing heat and/or sparks. This includes; but is not limited to: brazing, cutting, grinding, soldering, torch-applied roofing and welding.

Required Precautions Checklist:	
1. ☐	Check that available sprinklers and extinguishers are in service and operable.
2. ☐	Hot work equipment is in good working condition.
Requirements within 35 ft.of Hot Work:	
1. ☐	Flammable liquid, dust, lint and oil deposits are removed.
2. ☐	Explosive atmosphere in the area is eliminated.
3. ☐	Floors are swept clean.
4. ☐	Combustible floors are wet down, covered with damp sand or fire-resistant sheets.
5. ☐	Remove other combustible material where possible. Otherwise, protect them with FM Approved welding pads, blankets and curtains, fire-resistive tarpaulins or metal shields.
6. ☐	All wall and floor openings are covered.
7. ☐	FM Approved welding pads, blankets and curtains are installed under and around work.
8. ☐	Protect or shut down ducts and conveyors that might carry sparks to distant combustible material
Hot Work on Walls, Ceilings or Roofs:	
1. ☐	Construction is noncombustible and without combustible coverings or insulation.
2. ☐	Combustible material on the other side of walls, ceilings, and roofs are moved away.
Hot Work on Enclosed Equipment:	
1. ☐	Enclosed equipment is cleaned of all combustible material.
2. ☐	Containers are purged of flammable liquids and vapors.
3. ☐	Pressurized vessels, piping and equipment is removed from service, isolated and vented.
Fire Watch/Hot Work Area Monitoring:	
1. ☐	Fire watch will be provided during hot work operations and for 30 minutes after work including any break activities.
2. ☐	Fire watch is supplied with a compliant fire extinguisher.
3. ☐	Fire watch is trained in the use of fire equipment and sounding of the fire alarm.
4. ☐	Fire watch may be required in adjoining areas, above and below hot work activities.
5. ☐	Monitor the hot work area for an additional ½ hour after the initial 30 minute fire watch is completed.
Other Precautions Taken:	
1. ☐	Welding Curtains in use
2. ☐	Proper Ventilation
3. ☐	Proper PPE Selection/Use



15 Fairfield Place
West Caldwell, NJ
973-575-5200

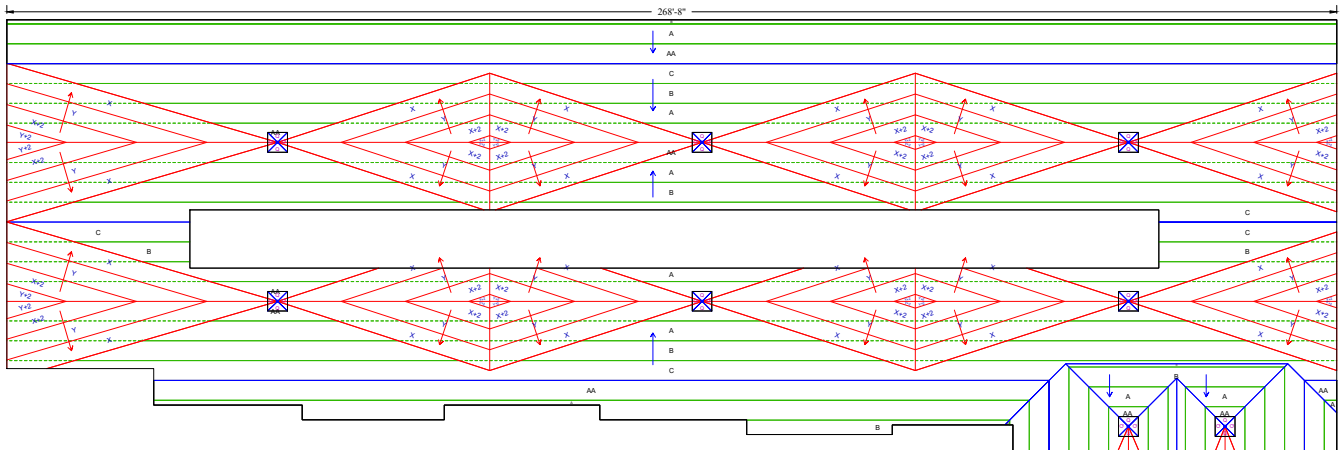
Start	End	Duration	Task		
10/23/2023	11/5/2023	14	Material Delivery, Equipment Staging	40	40
10/30/2023	11/5/2023	7	Ballast Removal	25	25
11/6/2023	12/5/2023	30	Tear Off, Install Insulation, Roof Membrane	-20	-60
12/6/2023	12/24/2023	19	Cap Sheet, Flashing, Coping	-25	-25
12/25/2023	12/27/2023	3	Skylight Demo	-35	-35
12/28/2023	12/28/2023	1	Anticipated Skylight Delivery, Load to Roof	20	20
12/29/2023	1/9/2024	12	Installation of Skylights	-45	-45
1/10/2024	1/11/2024	2	Clean up and Remove Equipment	-55	-55
1/12/2024	1/16/2024	5	Inspection	-65	-65
1/17/2024	1/23/2024	7	Punchlist	-75	-75

Electric work to take place throughout.

10/23/2023

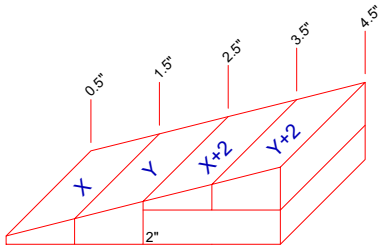
Tim Clark

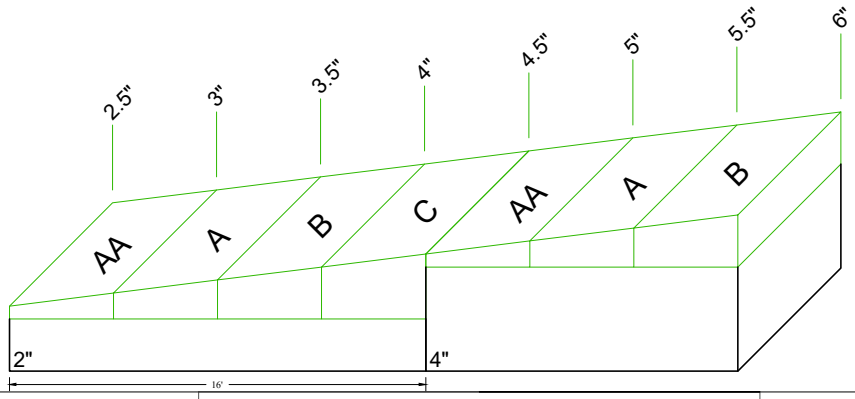
Additional base layers of insulation may be required in order to meet applicable energy code requirements. The use of the average R-value method to show compliance may not be acceptable with the authority having jurisdiction (AHJ). This method is intended to be used for tapered insulation systems where the insulation thickness does not vary more than 1 inch. When the variation exceeds 1 inch, it is acceptable to use an R-value based on the thickness of the insulation where the insulation is 1 inch thicker than the tapered system's low point. Consult with the AHJ for further guidance.

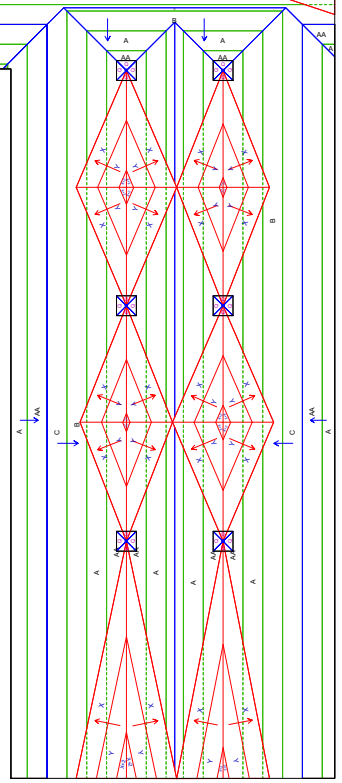


Notes:

1. Cover board & Sumps to be quoted separately unless noted otherwise
2. All panels are 4x4. If 4x8 is required please contact Design Specialist
3. Price Includes (1) layer of 2" and a 0.5" taper start for 16 feet from drain. Assembly after 16 feet changes to a single layer of 4" and a 0.5" taper start to reduce squares applied.







System Information

Material: CLASS I (FELT), 20 PSI

Tapered Panels	Cricket Panels	System Properties	Shipping
Area (sf): 28763.1	Area (sf): 10205.7	Min. R-Value: 14.4	4X4 Bundles:187.08
T. Slope:1/8"	C. Slope: 1/4"	Avg R-Value: 21.03	4X8 Bundles:0.00
Min: 0.5	Min: 0.5	Sqs. Handled: 771.2	Trucks: 3.90
Max: 5.87	Max: 4.34	Sqs. Applied: 688.11	

Project Name

BERGEN CC SCIENCE WING

PARAMUS, NJ

Quote Number:

G23VC 7342A02

Date: 10/19/2023

Quote Expires: 3/31/2024

GAF Tapered DesignGroup

Project Designer Information
Drawn By: Veronika Chwieroth
Direct: 973-580-4784
Email: tdg@gaf.com

Tapered Design Concept - Quote Based on Provided Drawing and Dimensions Quote based on design shown here. IMPORTANT - As a provider of materials and service only -Design will not assume responsibility for quantities due to errors on submitted plans, drawings or differences in field conditions. Contractor shall verify all drain locations, perimeter dimensions, materials and R-values. Contractor is responsible for verifying this quote to insure that it meets job specifications. All shop drawings must be approved prior to installation .

SR PRODUCTS
1380 E. Highland Road
Macedonia, OH 44056
Bus. (330) 998-6500 • Emergency No.: (800) 424-9300

SR PRODUCTS™
CUSTOMER SATISFACTION SINCE 1900

Safety Data Sheet
Dated: 05/27/15

1. Product Identification

PRODUCT NAME:	Multi-Ply Glass CL	CHEMICAL FAMILY: Fibrous Membrane
PRODUCT CODE:	0250415	This SDS complies with requirements of the Hazard Communication Standard OSHA 29 CFR 1910.1200

2. Hazards Identification

Emergency Overview	Under United States Regulations (29 CFR 1900.1200 – OSHA Hazard Communication Standard) this product is exempt as an "Article" under normal conditions of use. In Canada, this product is considered as a manufactured article under the Workplace Hazardous Materials Information System (WHMIS) and is exempt. Under normal conditions of use, this product is not expected to pose a physical hazard or health risk to humans. This product does 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 250°F), burning, cutting, sanding and/or grinding when there is a potential for exposure to these components.
GHS Classification	H303 – May be harmful if swallowed H315 – Causes skin irritation H320 – Causes eye irritation H335/336 – May cause respiratory irritation
Label Element(s)	
Signal Word	Warning
Hazard Statement(s)	This product contains trace amounts of polynuclear aromatic compounds; some of which are listed as hazardous under various State laws and regulations. This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Chronic respiratory or skin conditions may temporarily worsen from exposure to emissions from this product in abnormal or emergency conditions (i.e., as referenced above – Emergency Overview).
Potential Health Effects	Inhalation - Inhalation of vapors, fumes or mists of the products in abnormal or emergency circumstances may be irritating to the respiratory system. See Section 8 for exposure controls. Skin Contact – Contact with hot product may cause thermal burns. Prolonged or repeated contact may cause dryness and irritation of the skin. Long-term skin exposure to asphalt can increase sensitivity to the sun, and may cause discoloration. Eye Contact – 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. Ingestion – These products may be harmful or fatal if swallowed. They may cause dizziness, in-coordination, headache, nausea and vomiting. Small amounts of these products, if aspirated into the lungs, may cause mild to severe pulmonary injury.

3. Composition (*Information on Ingredients*)

Chemical Name	CAS #:	% by Weight
Petroleum Asphalt *	8052-42-4	0 – 60
Oxidized Asphalt *	64742-93-4	0 – 75
Dry Roofing Felt	Not Available	0 – 45
Fiberglass Mat	65997-17-3	1 – 5
Fiberglass/Polyester Mat	65997-17-3	1 – 5
Polyester Mat	N/A	1 – 5
Formaldehyde (within the fiberglass)	50-00-0	< 0.1
Crystalline Silica (Sand)	14808-60-7	0 – 25
Calcium Carbonate (Encapsulated)	1317-65-3	0 – 35
SBS Polymers	N/A	2 – 10
Crushed Minerals (Roofing Granules)	Not Available	25 – 45

NOTE: The above components and their percentages are provided for health and safety purposes ONLY. This document should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

* *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.*

Component Related Regulatory Information – Emissions from this product in abnormal or emergency circumstances may be regulated, have exposure limits or other information identified as the following: Asphalt (8052-42-4), Oxidized Asphalt (64742-93-4), Crystalline Silica (14808-60-7), Formaldehyde (50-00-0), Nuisance particulates. See Section 8 of this SDS for exposure limit data for these ingredients

4. First Aid Measures

Health Hazards (Acute & Chronic): Under normal conditions of use, this product is not expected to create any unusual emergency hazards.

- **Chronic Effects in Abnormal or Emergency Circumstances:** Occupational exposures to asphalt, oxidized asphalt, silica and formaldehyde, which may occur from this product during abnormal conditions of use or emergencies, have been found to be probably or known human carcinogens, and may cause serious irreversible lung disease and other non-cancerous effects (see Section 11 of this SDS for more information).
- **Notes to Physician:** This material, if aspirated into the lungs, may cause chemical pneumonitis; treat the affected person appropriately.

Primary Routes of Entry: Skin and eye – possible mechanical irritation. Inhalation of vapors, fumes or mists of the product in abnormal or emergency circumstances may be irritating to the respiratory system.

Medical Conditions Generally Aggravated by Exposure: Chronic respiratory or skin conditions may temporarily worsen from exposure to emissions from this product in abnormal or emergency conditions.

Emergency & First Aid Procedures: Inhalation: 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. Skin Contact: 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 persist, seek medical attention. Eye Contact: Immediately flush eyes with water for at least 15 minutes while holding eyelids open. Seek medical attention at once. Ingestion: DO NOT induce vomiting. Prevent aspiration of material into lungs. Seek immediate medical attention.

5. Firefighting Measures

Flash Point: >535^{0}F (279^{0}C) **Upper Flammability Limit:** Not Available **Lower Flammability Limit:** Not available **Flash Point Method:** C.O.C.

Flammability Classification: Combustible **Rate of Burning:** Not available

Auto Ignition Temperature: >650^{0}F (343^{0}C)

Extinguishing Media: Use dry chemical, foam and carbon dioxide. Use water to cool fire-exposed containers and to protect personnel.

Unusual Fire & Explosion Hazards: Treat as hydrocarbon type fire. Hot asphalt may ignite flammable materials on contact. DO NOT direct water into a container or directly onto hot asphalt, a vessel or a storage tank containing asphalt as it may cause violent eruptions and spreading of hot asphalt.

Fire-Fighting Instructions: Use self-contained breathing apparatus (SCBA) and full bunker turnout gear in a sustained fire. Wear protective clothing ensemble as defined in NFPA 1500 (1997, or as updated).

Hazardous Combustion Products: Primary combustion products are carbon monoxide, carbon dioxide and water. Combustion products may include sulfur oxides and hydrogen sulfide. Other undetermined compounds could be released in small quantities.

6. Accidental Release Measures

Containment Procedures: Contain spills with an inert absorbent material such as soil, sand or oil dry.

These materials will settle out of the air. They can then be scooped up or vacuumed for disposal as a non-hazardous waste. These materials will sink and disperse along the bottom of waterways and ponds. They cannot easily be removed after becoming waterborne; however, they are considered non-hazardous in water.

Clean-Up Procedures: Solidify with inert absorbent materials such as sand or oil dry, pick up and put into suitable container for disposal. Check with local authorities for approval to dispose of this material.

Response Procedures: Isolate area. Keep unnecessary personnel away.

7. Handling and Storage

Precautions for Safe Handling: 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.

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.

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.

Storage Procedures: Store away from heat and all ignition sources and open flames in accordance with applicable laws and regulations.

Work/Hygienic Practices: Handle in accordance with good industrial hygiene and safety practices.

8. Exposure Controls/Personal Protection

Engineering Controls: Provide sufficient local and/or general exhaust ventilation to maintain exposure levels below the PELs or TLVs in abnormal or emergency circumstances.

Exposure Limits: ACGIH, OSHA and NIOSH exposure limit lists have been checked for those components with CAS registry numbers listed in Section 2 of this Safety Data Sheet (SDS).

Components	CAS Number	Exposure Limits
Petroleum Asphalt	8052-42-4	ACGIH: 0.5 mg/m^3 TLV-TWA, benzene-extractable, inhalable particulate (or equivalent method) OSHA: Total dust: 15 mg/m^3 PEL-TWA; respirable fraction: 5 mg/m^3 PEL-TWA (related to particulates not otherwise regulated, PNOR) NIOSH: 5 mg/m^3 REL (*Recommended Exposure Limit*), measured as a 15 minute ceiling (fumes)
Asphalt, Oxidized	64742-93-4	ACGIH: 0.5 mg/m^3 TLV-TWA (fume) OSHA: Total dust: 15 mg/m^3 PEL-TWA; respirable fraction: 5 mg/m^3 PEL-TWA (related to particulates not otherwise regulated, PNOR) NIOSH: 5 mg/m^3 REL, measured as a 15 minute ceiling (fumes)
Crystalline Silica (Sand)	14808-60-7	ACGIH: 0.025 mg/m^3 TLV-TWA (respirable fraction) OSHA: 0.1 mg/m^3 PEL-TWA (respirable dust) NIOSH: 50 µg/m^3 REL as a TWA for up to 10 hours/day during a 40-hour workweek (respirable fraction)
Formaldehyde	50-00-0	ACGIH: 0.03 ppm TLV-STEL OSHA: 0.75 ppm, 8-hour TWA / 2 ppm, 15 minute STEL NIOSH: REL 0.016 ppm, 8-hour TWA / 0.1 ppm 15-minute ceiling

Personal Protective Equipment:

- Eyes/Face Protective Equipment: Wear safety glasses or goggles. Also wear a face shield where splash hazard exists.
- Skin: Heat insulated, leather or lined neoprene coated gloves should be worn when working with hot asphalt materials. A loose fitting, long sleeved cotton shirt and long cotton pants are recommended.
- Respiratory Protection: Not applicable under normal conditions of use. However, if ventilation is not sufficient to control exposures below TLV or PEL during abnormal or emergency circumstances, 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-face piece, 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.
- Ventilation: Provide sufficient local and/or general exhaust ventilation to maintain exposure levels below the PELs or TLVs in abnormal or emergency circumstances.
- General Work Practices: Handle with good industrial hygiene and safety practices. These include avoiding any unnecessary exposure and removal of the material from the skin, eyes and clothing. Wash hands and arms frequently, shower after exposure and wash work clothes when soiled.

  In case of exposure to or contact with hot asphalt, see Section 4.

  These products may be applied, repaired or maintained using hot liquid asphalt and these operations may result in worker exposures to asphalt fumes or emissions via inhalation or dermal absorption. Although there is no evidence that the fumes and emissions that occur in these operations emanate from these products, roofing contractors and workers using hot liquid asphalt in the application, repair or maintenance of these products should adhere to the equipment and work practice recommendations published by NIOSH. See DHHS (NIOSH) Publication No. 2003-107, entitled "Reducing Roofers' Exposure to Asphalt Fumes". The publication is available on NIOSH's website at: http://www.cdc.gov/niosh/docs/2003-107/pdfs/2003-107.pdf.

9. Physical and Chemical Properties

Appearance:	Solid, fibrous membrane	Evaporation Rate (Butyl Acetate = 1):	Not available
Odor:	Petroleum odor	% Volatile By Volume:	0%
Boiling Point:	> 1000°F (>538°C)	VOC Content:	Not applicable
Vapor Pressure (mm Hg @ 20°C):	Not applicable	pH:	Not applicable
Vapor Density (Air = 1):	Not applicable	Solubility in Water:	Insoluble
Specific Gravity (H_2O = 1):	1.08 – 1.11	Flash Point & Method:	> 535°F (279°C) C.O.C.
Viscosity:	Solid at room temperature	Flammable Limits:	Not applicable Lower Explosive Limit (LEL): Not applicable Upper Explosive Limit (UEL): Not applicable
Melting Point:	Not applicable		
Freeze Point:	Not available	Auto Ignition Temperature:	> 650°F (343°C)

NOTE: *These physical data are typical values based on material testing, but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.*

10. Stability and Reactivity

Stability: This material is stable.

Conditions To Avoid: Do not allow hot, molten asphalt to contact water as this may cause violent eruptions and spreading of hot asphalt.

Incompatibility: May react with strong oxidizing agents and water.

Hazardous Decomposition Products: Primary combustion products are carbon monoxide (CO), carbon dioxide (CO_2) and water (H_2O). Combustion products may include hydrogen sulfide (H_2S) and sulfur oxide (SO_x)

Hazardous Polymerization: Will not occur.

11. Toxicology Information

Acute and Chronic Toxicity:

- **General Product Information:** Contact with hot product may cause thermal burns. Long-term skin exposure to asphalt can increase sensitivity to the sun and cause discoloration. If ingested, may cause mouth, throat and gastrointestinal tract irritation and upset with possible nausea, vomiting and diarrhea. Small amounts of these products, if aspirated into the lungs, may cause mild to severe injury. See Section 8 for exposure controls.
- **Component Analysis – LD50/LC50:**

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	100 mg/kg Rat	270 mg/kg Rat	0.578 mg/L Rat 4H 250 ppm Rat 4h

- **Carcinogenicity:** Due to the product form (“Article”), 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.
  - ***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.
  - ***Crystalline 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.
- **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 this product. These products are not expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

13. Disposal Considerations

US EPA Waste Number and Descriptions: Material, if discarded, is not a characteristic hazardous waste under RCRA. No EPA Waste Numbers are applicable for the components of this product.

Waste Disposal Method: Dispose of waste material according to Local, State, Federal and Provincial Environmental regulations.

14. Transportation Information

DOT	IATA; IMDG	Canada
This product is not regulated by the Department of Transportation (DOT) and Transportation Dangerous Goods (TDG).	No additional information available.	No additional information available.

15. Regulatory Information

US Federal Regulations:

- **General Product Information:** OSHA Status: This product is considered an "Article" – as such, not subject to 29 CFR 1910.1200 (OSHA Hazard Communication Standard).
- **Component Analysis:** This material contains trace amounts of formaldehyde and polycyclic aromatic compounds (PACs) listed under SARA 313.
- **SARA 311/312:** Acute Health Hazard .....Yes
  Chronic Health Hazard .....Yes
  Fire Hazard .....No
  Sudden Release of Pressure Hazard.....No
  Reactive Hazard .....No
- **State Regulations:**
  - General Product Information: No additional information available.
  - Component Analysis – State: The following components listed in Section 2 of this SDS appear on one or more state hazard substance lists.

Component	CAS Number
Petroleum Asphalt	8052-42-4
Silica Quartz (SiO_2)	14808-60-7
Formaldehyde	50-00-0

This product contains trace amounts of polynuclear aromatic compounds; some of which are listed as hazardous under various State laws and regulations

  - The following statement is provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):
    WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Other Regulations:

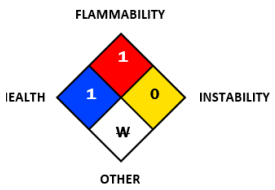
- **General Product Information:** All components identified in Section 2 of this SDS are either listed on the US EPA TSCA Inventory, or are exempt from listing.
  All components identified in Section 2 of this SDS are either listed on the Canadian DSL, or are exempt from listing.
- **Component Analysis – Inventory:**

Component	CAS Number	TSCA	DSL	EINECS
Petroleum Asphalt	8052-42-4	Yes	Yes	Yes
Silica Quartz (SiO_2)	14808-60-7	Yes	Yes	Yes
Formaldehyde	50-00-0	Yes	Yes	Yes

- **Component Analysis – WHMIS**: WHMIS Status: Not Controlled
  WHMIS Classification: None

16. Other

NFPA:



HMIS:

GLOSSARY:

ACGIH	American Conference of Governmental Industrial Hygienists
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
DSL	Canadian Domestic Substance List
EINECS	European Inventory of New and Existing Chemical Substances
EPA:	Environmental Protection Agency
HMIS	Hazardous Material Identification System
IARC	International Agency for Research on Cancer
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
SARA	Superfund Amendments and Reauthorization Act
TCA	Toxic Substance Control Act
WHMIS	Workplace Hazards Materials Information System

Revision Issue Date: 05/27/15 (*Replaces 07/21/09 SDS*) Revision Information: HCS Requirements – New, uniform format

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Safety Data Sheet
Dated: 05/27/15

1. Product Identification

PRODUCT NAME:	Multi-Ply Glass	CHEMICAL FAMILY: Fibrous Membrane This SDS complies with requirements of the Hazard Communication Standard OSHA 29 CFR 1910.1200
PRODUCT CODE:	0250432	

2. Hazards Identification

Emergency Overview	Under United States Regulations (29 CFR 1900.1200 – OSHA Hazard Communication Standard) this product is exempt as an "Article" under normal conditions of use. In Canada, this product is considered as a manufactured article under the Workplace Hazardous Materials Information System (WHMIS) and is exempt. Under normal conditions of use, this product is not expected to pose a physical hazard or health risk to humans. This product does 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 250°F), burning, cutting, sanding and/or grinding when there is a potential for exposure to these components.
GHS Classification	H303 – May be harmful if swallowed H315 – Causes skin irritation H320 – Causes eye irritation H335/336 – May cause respiratory irritation
Label Element(s)	
Signal Word	Warning
Hazard Statement(s)	This product contains trace amounts of polynuclear aromatic compounds; some of which are listed as hazardous under various State laws and regulations. This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Chronic respiratory or skin conditions may temporarily worsen from exposure to emissions from this product in abnormal or emergency conditions (i.e., as referenced above – Emergency Overview).
Potential Health Effects	Inhalation - Inhalation of vapors, fumes or mists of the products in abnormal or emergency circumstances may be irritating to the respiratory system. See Section 8 for exposure controls. Skin Contact – Contact with hot product may cause thermal burns. Prolonged or repeated contact may cause dryness and irritation of the skin. Long-term skin exposure to asphalt can increase sensitivity to the sun, and may cause discoloration. Eye Contact – 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. Ingestion – These products may be harmful or fatal if swallowed. They may cause dizziness, in-coordination, headache, nausea and vomiting. Small amounts of these products, if aspirated into the lungs, may cause mild to severe pulmonary injury.

3. Composition (*Information on Ingredients*)

Chemical Name	CAS #:	% by Weight
Petroleum Asphalt *	8052-42-4	0 – 60
Oxidized Asphalt *	64742-93-4	0 – 75
Dry Roofing Felt	Not Available	0 – 45
Fiberglass Mat	65997-17-3	1 – 5
Fiberglass/Polyester Mat	65997-17-3	1 – 5
Polyester Mat	N/A	1 – 5
Formaldehyde (within the fiberglass)	50-00-0	< 0.1
Crystalline Silica (Sand)	14808-60-7	0 – 25
Calcium Carbonate (Encapsulated)	1317-65-3	0 – 35
SBS Polymers	N/A	2 – 10
Crushed Minerals (Roofing Granules)	Not Available	25 – 45

NOTE: The above components and their percentages are provided for health and safety purposes ONLY. This document should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

* *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.*

Component Related Regulatory Information – Emissions from this product in abnormal or emergency circumstances may be regulated, have exposure limits or other information identified as the following: Asphalt (8052-42-4), Oxidized Asphalt (64742-93-4), Crystalline Silica (14808-60-7), Formaldehyde (50-00-0), Nuisance particulates. See Section 8 of this SDS for exposure limit data for these ingredients

4. First Aid Measures

Health Hazards (Acute & Chronic): Under normal conditions of use, this product is not expected to create any unusual emergency hazards.

- **Chronic Effects in Abnormal or Emergency Circumstances:** Occupational exposures to asphalt, oxidized asphalt, silica and formaldehyde, which may occur from this product during abnormal conditions of use or emergencies, have been found to be probably or known human carcinogens, and may cause serious irreversible lung disease and other non-cancerous effects (see Section 11 of this SDS for more information).
- **Notes to Physician:** This material, if aspirated into the lungs, may cause chemical pneumonitis; treat the affected person appropriately.

Primary Routes of Entry: Skin and eye – possible mechanical irritation. Inhalation of vapors, fumes or mists of the product in abnormal or emergency circumstances may be irritating to the respiratory system.

Medical Conditions Generally Aggravated by Exposure: Chronic respiratory or skin conditions may temporarily worsen from exposure to emissions from this product in abnormal or emergency conditions.

Emergency & First Aid Procedures: Inhalation: 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. Skin Contact: 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 persist, seek medical attention. Eye Contact: Immediately flush eyes with water for at least 15 minutes while holding eyelids open. Seek medical attention at once. Ingestion: DO NOT induce vomiting. Prevent aspiration of material into lungs. Seek immediate medical attention.

5. Firefighting Measures

Flash Point: >535^{0}F (279^{0}C) **Upper Flammability Limit:** Not Available **Lower Flammability Limit:** Not available **Flash Point Method:** C.O.C.

Flammability Classification: Combustible **Rate of Burning:** Not available

Auto Ignition Temperature: >650^{0}F (343^{0}C)

Extinguishing Media: Use dry chemical, foam and carbon dioxide. Use water to cool fire-exposed containers and to protect personnel.

Unusual Fire & Explosion Hazards: Treat as hydrocarbon type fire. Hot asphalt may ignite flammable materials on contact. DO NOT direct water into a container or directly onto hot asphalt, a vessel or a storage tank containing asphalt as it may cause violent eruptions and spreading of hot asphalt.

Fire-Fighting Instructions: Use self-contained breathing apparatus (SCBA) and full bunker turnout gear in a sustained fire. Wear protective clothing ensemble as defined in NFPA 1500 (1997, or as updated).

Hazardous Combustion Products: Primary combustion products are carbon monoxide, carbon dioxide and water. Combustion products may include sulfur oxides and hydrogen sulfide. Other undetermined compounds could be released in small quantities.

6. Accidental Release Measures

Containment Procedures: Contain spills with an inert absorbent material such as soil, sand or oil dry.

These materials will settle out of the air. They can then be scooped up or vacuumed for disposal as a non-hazardous waste. These materials will sink and disperse along the bottom of waterways and ponds. They cannot easily be removed after becoming waterborne; however, they are considered non-hazardous in water.

Clean-Up Procedures: Solidify with inert absorbent materials such as sand or oil dry, pick up and put into suitable container for disposal. Check with local authorities for approval to dispose of this material.

Response Procedures: Isolate area. Keep unnecessary personnel away.

7. Handling and Storage

Precautions for Safe Handling: 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.

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.

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.

Storage Procedures: Store away from heat and all ignition sources and open flames in accordance with applicable laws and regulations.

Work/Hygienic Practices: Handle in accordance with good industrial hygiene and safety practices.

8. Exposure Controls/Personal Protection

Engineering Controls: Provide sufficient local and/or general exhaust ventilation to maintain exposure levels below the PELs or TLVs in abnormal or emergency circumstances.

Exposure Limits: ACGIH, OSHA and NIOSH exposure limit lists have been checked for those components with CAS registry numbers listed in Section 2 of this Safety Data Sheet (SDS).

Components	CAS Number	Exposure Limits
Petroleum Asphalt	8052-42-4	ACGIH: 0.5 mg/m^3 TLV-TWA, benzene-extractable, inhalable particulate (or equivalent method) OSHA: Total dust: 15 mg/m^3 PEL-TWA; respirable fraction: 5 mg/m^3 PEL-TWA (related to particulates not otherwise regulated, PNOR) NIOSH: 5 mg/m^3 REL (*Recommended Exposure Limit*), measured as a 15 minute ceiling (fumes)
Asphalt, Oxidized	64742-93-4	ACGIH: 0.5 mg/m^3 TLV-TWA (fume) OSHA: Total dust: 15 mg/m^3 PEL-TWA; respirable fraction: 5 mg/m^3 PEL-TWA (related to particulates not otherwise regulated, PNOR) NIOSH: 5 mg/m^3 REL, measured as a 15 minute ceiling (fumes)
Crystalline Silica (Sand)	14808-60-7	ACGIH: 0.025 mg/m^3 TLV-TWA (respirable fraction) OSHA: 0.1 mg/m^3 PEL-TWA (respirable dust) NIOSH: 50 µg/m^3 REL as a TWA for up to 10 hours/day during a 40-hour workweek (respirable fraction)
Formaldehyde	50-00-0	ACGIH: 0.03 ppm TLV-STEL OSHA: 0.75 ppm, 8-hour TWA / 2 ppm, 15 minute STEL NIOSH: REL 0.016 ppm, 8-hour TWA / 0.1 ppm 15-minute ceiling

Personal Protective Equipment:

- Eyes/Face Protective Equipment: Wear safety glasses or goggles. Also wear a face shield where splash hazard exists.
- Skin: Heat insulated, leather or lined neoprene coated gloves should be worn when working with hot asphalt materials. A loose fitting, long sleeved cotton shirt and long cotton pants are recommended.
- Respiratory Protection: Not applicable under normal conditions of use. However, if ventilation is not sufficient to control exposures below TLV or PEL during abnormal or emergency circumstances, 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-face piece, 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.
- Ventilation: Provide sufficient local and/or general exhaust ventilation to maintain exposure levels below the PELs or TLVs in abnormal or emergency circumstances.
- General Work Practices: Handle with good industrial hygiene and safety practices. These include avoiding any unnecessary exposure and removal of the material from the skin, eyes and clothing. Wash hands and arms frequently, shower after exposure and wash work clothes when soiled.

  In case of exposure to or contact with hot asphalt, see Section 4.

  These products may be applied, repaired or maintained using hot liquid asphalt and these operations may result in worker exposures to asphalt fumes or emissions via inhalation or dermal absorption. Although there is no evidence that the fumes and emissions that occur in these operations emanate from these products, roofing contractors and workers using hot liquid asphalt in the application, repair or maintenance of these products should adhere to the equipment and work practice recommendations published by NIOSH. See DHHS (NIOSH) Publication No. 2003-107, entitled "Reducing Roofers' Exposure to Asphalt Fumes". The publication is available on NIOSH's website at: http://www.cdc.gov/niosh/docs/2003-107/pdfs/2003-107.pdf.

9. Physical and Chemical Properties

Appearance:	Solid, fibrous membrane	Evaporation Rate (Butyl Acetate = 1):	Not available
Odor:	Petroleum odor	% Volatile By Volume:	0%
Boiling Point:	> 1000°F (>538°C)	VOC Content:	Not applicable
Vapor Pressure (mm Hg @ 20°C):	Not applicable	pH:	Not applicable
Vapor Density (Air = 1):	Not applicable	Solubility in Water:	Insoluble
Specific Gravity (H_2O = 1):	1.08 – 1.11	Flash Point & Method:	> 535°F (279°C) C.O.C.
Viscosity:	Solid at room temperature	Flammable Limits:	Not applicable Lower Explosive Limit (LEL): Not applicable Upper Explosive Limit (UEL): Not applicable
Melting Point:	Not applicable		
Freeze Point:	Not available	Auto Ignition Temperature:	> 650°F (343°C)

NOTE: *These physical data are typical values based on material testing, but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.*

10. Stability and Reactivity

Stability: This material is stable.

Conditions To Avoid: Do not allow hot, molten asphalt to contact water as this may cause violent eruptions and spreading of hot asphalt.

Incompatibility: May react with strong oxidizing agents and water.

Hazardous Decomposition Products: Primary combustion products are carbon monoxide (CO), carbon dioxide (CO_2) and water (H_2O). Combustion products may include hydrogen sulfide (H_2S) and sulfur oxide (SO_x)

Hazardous Polymerization: Will not occur.

11. Toxicology Information

Acute and Chronic Toxicity:

- **General Product Information:** Contact with hot product may cause thermal burns. Long-term skin exposure to asphalt can increase sensitivity to the sun and cause discoloration. If ingested, may cause mouth, throat and gastrointestinal tract irritation and upset with possible nausea, vomiting and diarrhea. Small amounts of these products, if aspirated into the lungs, may cause mild to severe injury. See Section 8 for exposure controls.
- **Component Analysis – LD50/LC50:**

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	100 mg/kg Rat	270 mg/kg Rat	0.578 mg/L Rat 4H 250 ppm Rat 4h

- **Carcinogenicity:** Due to the product form (“Article”), 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.
  - ***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.
  - ***Crystalline 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.
- **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 this product. These products are not expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

13. Disposal Considerations

US EPA Waste Number and Descriptions: Material, if discarded, is not a characteristic hazardous waste under RCRA. No EPA Waste Numbers are applicable for the components of this product.

Waste Disposal Method: Dispose of waste material according to Local, State, Federal and Provincial Environmental regulations.

14. Transportation Information

DOT	IATA; IMDG	Canada
This product is not regulated by the Department of Transportation (DOT) and Transportation Dangerous Goods (TDG).	No additional information available.	No additional information available.

15. Regulatory Information

US Federal Regulations:

- **General Product Information:** OSHA Status: This product is considered an "Article" – as such, not subject to 29 CFR 1910.1200 (OSHA Hazard Communication Standard).
- **Component Analysis:** This material contains trace amounts of formaldehyde and polycyclic aromatic compounds (PACs) listed under SARA 313.
- **SARA 311/312:** Acute Health Hazard .....Yes
  Chronic Health Hazard .....Yes
  Fire Hazard .....No
  Sudden Release of Pressure Hazard.....No
  Reactive Hazard .....No
- **State Regulations:**
  - General Product Information: No additional information available.
  - Component Analysis – State: The following components listed in Section 2 of this SDS appear on one or more state hazard substance lists.

Component	CAS Number
Petroleum Asphalt	8052-42-4
Silica Quartz (SiO_2)	14808-60-7
Formaldehyde	50-00-0

This product contains trace amounts of polynuclear aromatic compounds; some of which are listed as hazardous under various State laws and regulations

  - The following statement is provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):
    WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Other Regulations:

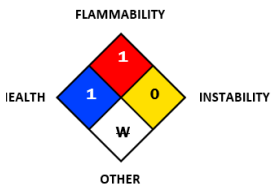
- **General Product Information:** All components identified in Section 2 of this SDS are either listed on the US EPA TSCA Inventory, or are exempt from listing.
  All components identified in Section 2 of this SDS are either listed on the Canadian DSL, or are exempt from listing.
- **Component Analysis – Inventory:**

Component	CAS Number	TSCA	DSL	EINECS
Petroleum Asphalt	8052-42-4	Yes	Yes	Yes
Silica Quartz (SiO_2)	14808-60-7	Yes	Yes	Yes
Formaldehyde	50-00-0	Yes	Yes	Yes

- **Component Analysis – WHMIS**: WHMIS Status: Not Controlled
  WHMIS Classification: None

16. Other

NFPA:



HMIS:

GLOSSARY:

ACGIH	American Conference of Governmental Industrial Hygienists
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
DSL	Canadian Domestic Substance List
EINECS	European Inventory of New and Existing Chemical Substances
EPA:	Environmental Protection Agency
HMIS	Hazardous Material Identification System
IARC	International Agency for Research on Cancer
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
SARA	Superfund Amendments and Reauthorization Act
TCA	Toxic Substance Control Act
WHMIS	Workplace Hazards Materials Information System

Revision Issue Date: 05/27/15 (*Replaces 07/21/09 SDS*) Revision Information: HCS Requirements – New, uniform format

Safety Data Sheet

MAY, 2015

Product identifier

Product Name RMA Elastic

Other means of identification

Product Code 8605055

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use High performance rubberized roof cement. It can be used on wet surfaces or under water. Used to install, repair or rebuild roof flashings at parapet walls, gravel stops, stacks, vents, monitors and similar applications. Can be used with fiberglass, polyester fabrics or roll roofing for permanent repairs.

Uses advised against For exterior use only. Do not use indoors.

Details of the supplier of the safety data sheet

Manufacturer Address

SR Products
1380 East Highland Road
Macedonia, Ohio 44056
(330) 998-6500

Emergency telephone number

Emergency Telephone

Call CHEMTREC Day or Night:
Within USA and Canada: 1-800 424-9300
Outside USA and Canada: 1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1A
Specific target organ toxicity (repeated exposure)	Category 1
Aspiration toxicity	Category 1
Flammable liquids	Category 3

Label elements

Emergency Overview

Danger

Hazard statements

May cause genetic defects
May cause cancer
Causes damage to organs through prolonged or repeated exposure
May be fatal if swallowed and enters airways
Flammable liquid and vapor

Appearance Viscous **Physical state** Liquid **Odor** Solvent (Mineral Spirits)

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Keep away from heat/sparks/open flames/hot surfaces.
Keep container tightly closed when product is not in use.
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/equipment
Use only non-sparking tools
Take precautionary measures against static discharge

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other Information
- May be harmful in contact with skin
- Causes mild skin irritation
- Toxic to aquatic life with long lasting effects
- Toxic to aquatic life

Unknown acute toxicity 17.421695% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance
Mixture
This product is a mixture.
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Common name
Synonyms None.
Chemical nature Solvent based asphalt coating with additives.

Chemical Name	CAS No.	Weight-%	Trade Secret
Asphalt (at Ambient Temperature)	8052-42-4	50 - 60%	*
Mineral Spirits (with < 0.1% Benzene)	8052-41-3	20 - 30%	*
Hydrated Aluminum-Magnesium Silicate (Attapulgite)	12174-11-7	10 - 20%	*
Cellulose Fiber	9004-34-6	0 - 10%	*
Petroleum naphtha, light aromatic	64742-95-6	0 - 10%	*
Styrene/Butadiene Copolymer	9003-55-8	0 - 10%	*
Kaolin	1332-58-7	0 - 10%	*
Alkyl Amine Acetate	28701-67-9	0 - 10%	*
Nonane	111-84-2	0 - 10%	*
QUARTZ	14808-60-7	0 - 10%	*

4. FIRST AID MEASURES

Description of first aid measures

General advice Contains petroleum distillate. Harmful or fatal if swallowed. Vapor harmful. May affect the brain or central nervous system causing dizziness, headache, or nausea. Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.

Eye contact In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin contact Wash thoroughly with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. In the case of skin irritation or allergic reactions see a physician.

Inhalation Move to fresh air in case of accidental inhalation of vapors. If continued difficulty with breathing is experienced, get medical attention immediately.

Ingestion Not an expected route of exposure. If swallowed, do not induce vomiting. Get medical attention immediately.

Self-protection of the first aider First aider: Pay attention to self-protection!.

Most important symptoms and effects, both acute and delayed

Symptoms May cause skin irritation. May cause eye irritation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical. Carbon dioxide (CO2). Sand. Use foam or water FOG as a last resort.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical
No information available.

Hazardous combustion products Thermal decomposition (burning) may release irritating, corrosive and/or toxic gases, vapors and fumes.

Explosion data
Sensitivity to Mechanical Impact Not sensitive.
Sensitivity to Static Discharge May be ignited by heat, sparks or flames.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions No action should be taken involving any personal risk or without suitable training. Use personal protective equipment as required.

Other Information Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).

Use personal protection recommended in Section 8.

For emergency responders

Environmental precautions Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering sewers, drains, or waterways. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Contain spillage with non-combustible absorbent material, e.g. sand, earth, diatomaceous earth, vermiculite.

Methods for cleaning up Pick up the absorbed material (described just above) and transfer to properly labeled containers for disposal according to local / national regulations (see Section 13).

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Remove all sources of ignition. Use only outdoors.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a cool, dry, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition.

Incompatible materials Strong acids. Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, is not believed to contain any hazardous material that exceeds exposure limits established by OSHA. .

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Asphalt (at Ambient Temperature) 8052-42-4	TWA: 0.5 mg/m^3 benzene soluble aerosol fume, inhalable fraction	-	Ceiling: 5 mg/m^3 fume 15 min
Mineral Spirits (with < 0.1% Benzene) 8052-41-3	TWA: 100 ppm	TWA: 500 ppm TWA: 2900 mg/m^3 (vacated) TWA: 100 ppm (vacated) TWA: 525 mg/m^3	IDLH: 20000 mg/m^3 Ceiling: 1800 mg/m^3 15 min TWA: 350 mg/m^3
Hydrated Aluminum-Magnesium Silicate (Attapulgite) 12174-11-7	TWA: 1 mg/m^3 respirable fraction	-	-
Cellulose Fiber 9004-34-6	TWA: 10 mg/m^3	TWA: 15 mg/m^3 total dust TWA: 5 mg/m^3 respirable fraction (vacated) TWA: 5 mg/m^3 (vacated) STEL: 10 mg/m^3	TWA: 1 mg/m^3
Kaolin 1332-58-7	TWA: 2 mg/m^3 particulate matter containing no asbestos and <1% crystalline silica, respirable fraction	TWA: 15 mg/m^3 total dust TWA: 5 mg/m^3 respirable fraction (vacated) TWA: 10 mg/m^3 total dust (vacated) TWA: 5 mg/m^3 respirable fraction	TWA: 10 mg/m^3 total dust TWA: 5 mg/m^3 respirable dust
Nonane 111-84-2	TWA: 200 ppm	(vacated) TWA: 200 ppm (vacated) TWA: 1050 mg/m^3	TWA: 200 ppm TWA: 1050 mg/m^3
QUARTZ 14808-60-7	-	(vacated) TWA: 0.1 mg/m^3 respirable dust : (30)/(%SiO2 + 2) mg/m^3 TWA total dust : (250)/(%SiO2 + 5) mppcf TWA respirable fraction : (10)/(%SiO2 + 2) mg/m^3 TWA respirable fraction	IDLH: 50 mg/m^3 respirable dust TWA: 0.05 mg/m^3 respirable dust

Appropriate engineering controls

Engineering Controls Use natural cross ventilation, local (mechanical) pick-up, and/or general area mechanical cross ventilation. Ventilation pattern should be designed to prevent accumulation of asphalt vapors. Ventilation must be sufficient to maintain asphalt vapor concentrations below the TWA limits outlined above.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective gloves and protective clothing that is resistant to chemical penetration.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, a NIOSH/MSHA approved respiratory protection should be worn.

General Hygiene Considerations Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid		
Appearance	Viscous	**Odor**	Solvent (Mineral Spirits)
Color	Black	**Odor threshold**	No information available

Property	**Values**	**Remarks • Method**
pH	N/A	Not applicable
Melting point/freezing point	No information available	
Boiling point / boiling range	> No information available	
Flash point	> 40.5 °C / > 105 °F	Setaflash
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		No data available.
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	.96 - 1.04	Water = 1g/ml
Water solubility	Insoluble	
Solubility in other solvents	Soluble in aromatic and aliphatic solvents.	
Partition coefficient	No information available	No data available.
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	Vapor accumulation could flash or explode if ignited.	
Oxidizing properties	None	

Other Information

Softening point	Not applicable
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	Not applicable

10. STABILITY AND REACTIVITY

Reactivity

Not applicable — Not applicable

Chemical stability

Stable.

Possibility of Hazardous Reactions

None under normal use.

Hazardous polymerization — Hazardous polymerization does not occur.

Conditions to avoid

Avoid static discharge. Avoid heat, sparks, and open flame.

Incompatible materials

Strong acids. Strong oxidizing agents.

Hazardous Decomposition Products

Combustion may produce carbon monoxide, carbon dioxide, and other asphyxiants.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information — Toxicological testing has not been conducted for this product overall. Available toxicological data for individual ingredients are summarized below.

Inhalation — Avoid breathing vapors or mists.

Eye contact — Avoid contact with eyes. Contact with eyes may cause irritation.

Skin contact — May cause irritation.

Ingestion — If swallowed, do not induce vomiting. Get medical attention immediately. Not an expected route of exposure.

Component Information

* The IARC Monograph (Vol. 103, 2013, Bitumen and Bitumen Emissions) defines Asphalt as 'Group 2B, Possible Carcinogen to Humans'. This definition is based on studies of exposure to Asphalt fumes at elevated temperatures. The Monograph states that temperature plays an important role in determining the degree of exposure and also the carcinogenic potential of bitumen emissions. This same Monograph states that Asphalt is non volatile at ambient temperature. There is no data presented in the Monograph to demonstrate that Asphalt at ambient temperature is considered a carcinogen. Since the normal use of this product is at ambient temperature, the Asphalt used in this product is not listed as a carcinogen. No other national or international agency has defined Asphalt as a carcinogen.

** No significant exposure to Crystalline Silica (Quartz) is thought to occur during the use of products in which Crystalline Silica (Quartz) is bound to other materials, such as in paints and coatings. As one reference, see California Office of Health Hazard Assessment at: http://www.oehha.org/prop65/CRNR_notices/safe_use/sylicasud2.html

*** The IARC Monograph (Vol 93, 2010, Carbon Black, Titanium Dioxide, Talc) states: "Operators in user industries who handle fluffy or pelleted Carbon Black during rubber, paint and ink production are expected to have significantly lower exposures to Carbon Black than workers in Carbon Black production. Other workers in user industries who handle it occasionally have little opportunity for exposure. And further…"End-users of these products (rubber, ink or paint) are unlikely to be exposed to airborne Carbon Black particles, which are bound within the product matrix."

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Asphalt (at Ambient Temperature) 8052-42-4	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-
Cellulose Fiber 9004-34-6	> 5 g/kg (Rat)	> 2 g/kg (Rabbit)	> 5800 mg/m^3 (Rat) 4 h
Petroleum naphtha, light aromatic 64742-95-6	= 8400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 3400 ppm (Rat) 4 h
Nonane 111-84-2	-	-	= 3200 ppm (Rat) 4 h
QUARTZ 14808-60-7	= 500 mg/kg (Rat)	-	-

Information on toxicological effects

Symptoms Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Can cause skin irritation.
Serious eye damage/eye irritation Irritating to eyes.
Irritation Irritating to eyes, respiratory system and skin.
Corrosivity Not classified.
Sensitization May cause sensitization of susceptible persons.
Germ cell mutagenicity This product does not contain any ingredients that cause germ cell mutagenicity.
Carcinogenicity The table below indicates whether each agency (ACGIH, IARC, NTP, or OSHA) has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydrated Aluminum-Magnesium Silicate (Attapulgite) 12174-11-7	-	Group 2B Group 3	-	X
Styrene/Butadiene Copolymer 9003-55-8	-	Group 3	-	-

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)
A1 - Known Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen
A4 - Not Classifiable as a Human Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans
Group 3 - Not classifiable as a human carcinogen.
NTP (National Toxicology Program)
Known - Known Carcinogen
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity None known.
Developmental Toxicity None known.
Teratogenicity None known.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration hazard No information available.

Numerical measures of toxicity - No information available

The following values are calculated based on chapter 3.1 of the GHS document For exterior use only. Do not use indoors.

ATEmix (oral) 7,128.00
ATEmix (dermal) 2,806.00

12. ECOLOGICAL INFORMATION

Ecotoxicity

97.6998% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical Name	Partition coefficient
Asphalt (at Ambient Temperature) 8052-42-4	6

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable local, regional, national and international laws and regulations.

Contaminated packaging Do not reuse container.

14. TRANSPORT INFORMATION

DOT DOT Ground: Not regulated if shipped in containers < 119 gallons (450 liters).

TDG unknown

ICAO (air) unknown

IMDG unknown

RID unknown

ADR unknown

ADN unknown

15. REGULATORY INFORMATION

International Inventories

TSCA All of the components of this product are listed on the US TSCA (Toxic Substances Control Act) Inventory or are exempt.

DSL/NDSL All of the components of this product are listed on the DSL.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

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

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Hydrated Aluminum-Magnesium Silicate (Attapulgite) - 12174-11-7	Carcinogen
QUARTZ - 14808-60-7	Carcinogen

U.S. State Right-to-Know Regulations

This product contains the following substances regulated by various State Right-to-Know regulations.

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Asphalt (at Ambient Temperature) 8052-42-4	X	X	X
Mineral Spirits (with < 0.1% Benzene) 8052-41-3	X	X	X
Cellulose Fiber 9004-34-6	X	X	X
Kaolin 1332-58-7	X	X	X
Nonane 111-84-2	X	X	X
QUARTZ 14808-60-7	X	X	X

U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	**Health hazards** 2	**Flammability** 2	**Instability** 0	**Physical and Chemical Properties** -
HMIS	**Health hazards** 2	**Flammability** 2	**Physical hazards** 0	**Personal protection** -

Chronic Hazard Star Legend ** = Chronic Health Hazard*

Prepared By FBC Administrative Services Department
Issue Date 09-May-2015
Revision Date 25-May-2015
Revision Note
No information available

Disclaimer
The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet

RMA MASTIC 8605050

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 07/30/2008 Revision date: 10/12/2015

1. IDENTIFICATION

Product identifier

Product Name RMA Mastic Summer Grade, RMA Mastic Winter Grade

Other means of identification

Product Code 8605050, 8605052, 8605053

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Used to install, repair or rebuild roof flashings at parapet walls, gravel stops, stacks, vents, monitors and similar applications. Can be used with fiberglass, polyester fabrics or roll roofing for permanent repairs.

Uses advised against For exterior use only. Do not use indoors.

Details of the supplier of the safety data sheet

Manufacturer Address SR Products
1380 East Highland Road
Macedonia, Ohio 44056
(330) 998-6500

Emergency telephone number

Emergency Telephone Call CHEMTREC Day or Night:
Within USA and Canada: 1-800 424-9300
Outside USA and Canada: 1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Carcinogenicity	Category 1A
Specific target organ toxicity (repeated exposure)	Category 1
Aspiration toxicity	Category 1
Flammable liquids	Category 3

Label elements

Emergency Overview

Danger

Hazard statements

May cause cancer
Causes damage to organs through prolonged or repeated exposure
May be fatal if swallowed and enters airways
Flammable liquid and vapor

Appearance Viscous **Physical state** Liquid **Odor** Solvent (Mineral Spirits)

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Keep away from heat/sparks/open flames/hot surfaces.
Keep container tightly closed when product is not in use.
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/equipment
Use only non-sparking tools
Take precautionary measures against static discharge

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other Information
• May be harmful in contact with skin
Unknown acute toxicity 16.373895% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance
Mixture
This product is a mixture.
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Common name
Synonyms None.
Chemical nature Solvent based asphalt coating with additives.

Chemical Name	CAS No.	Weight-%	Trade Secret
Asphalt (at Ambient Temperature)	8052-42-4	50 - 60%	*
Mineral Spirits (with < 0.1% Benzene)	8052-41-3	20 - 30%	*
Hydrated Aluminum-Magnesium Silicate (Attapulgite)	12174-11-7	10 - 20%	*
Cellulose Fiber	9004-34-6	0 - 10%	*
Alkyl Amine Acetate	28701-67-9	0 - 10%	*
Kaolin	1332-58-7	0 - 10%	*
Nonane	111-84-2	0 - 10%	*
QUARTZ	14808-60-7	0 - 10%	*

4. FIRST AID MEASURES

Description of first aid measures

General advice Contains petroleum distillate. Harmful or fatal if swallowed. Vapor harmful. May affect the brain or central nervous system causing dizziness, headache, or nausea. Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.

Eye contact In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin contact Wash thoroughly with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. In the case of skin irritation or allergic reactions see a physician.

Inhalation Move to fresh air in case of accidental inhalation of vapors. If continued difficulty with breathing is experienced, get medical attention immediately.

Ingestion Not an expected route of exposure. If swallowed, do not induce vomiting. Get medical attention immediately.

Self-protection of the first aider First aider: Pay attention to self-protection!.

Most important symptoms and effects, both acute and delayed

Symptoms May cause skin irritation. May cause eye irritation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical. Carbon dioxide (CO2). Sand. Use foam or water FOG as a last resort.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

No information available.

Hazardous combustion products Thermal decomposition (burning) may release irritating, corrosive and/or toxic gases, vapors and fumes.

Explosion data

Sensitivity to Mechanical Impact Not sensitive.

Sensitivity to Static Discharge May be ignited by heat, sparks or flames.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions No action should be taken involving any personal risk or without suitable training. Use personal protective equipment as required.

Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).

Other Information

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering sewers, drains, or waterways. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Contain spillage with non-combustible absorbent material, e.g. sand, earth, diatomaceous earth, vermiculite.

Methods for cleaning up Pick up the absorbed material (described just above) and transfer to properly labeled containers for disposal according to local / national regulations (see Section 13).

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Remove all sources of ignition. Use only outdoors.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a cool, dry, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition.

Incompatible materials Strong acids. Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, is not believed to contain any hazardous material that exceeds exposure limits established by OSHA. .

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Asphalt (at Ambient Temperature) 8052-42-4	TWA: 0.5 mg/m^3 benzene soluble aerosol fume, inhalable fraction	-	Ceiling: 5 mg/m^3 fume 15 min
Mineral Spirits (with < 0.1% Benzene) 8052-41-3	TWA: 100 ppm	TWA: 500 ppm TWA: 2900 mg/m^3 (vacated) TWA: 100 ppm (vacated) TWA: 525 mg/m^3	IDLH: 20000 mg/m^3 Ceiling: 1800 mg/m^3 15 min TWA: 350 mg/m^3
Hydrated Aluminum-Magnesium Silicate (Attapulgite) 12174-11-7	TWA: 1 mg/m^3 respirable fraction	-	-
Cellulose Fiber 9004-34-6	TWA: 10 mg/m^3	TWA: 15 mg/m^3 total dust TWA: 5 mg/m^3 respirable fraction (vacated) TWA: 5 mg/m^3 (vacated) STEL: 10 mg/m^3	TWA: 1 mg/m^3
Kaolin 1332-58-7	TWA: 2 mg/m^3 particulate matter containing no asbestos and <1% crystalline silica, respirable fraction	TWA: 15 mg/m^3 total dust TWA: 5 mg/m^3 respirable fraction (vacated) TWA: 10 mg/m^3 total dust (vacated) TWA: 5 mg/m^3 respirable fraction	TWA: 10 mg/m^3 total dust TWA: 5 mg/m^3 respirable dust
Nonane 111-84-2	TWA: 200 ppm	(vacated) TWA: 200 ppm (vacated) TWA: 1050 mg/m^3	TWA: 200 ppm TWA: 1050 mg/m^3
QUARTZ 14808-60-7	-	(vacated) TWA: 0.1 mg/m^3 respirable dust : (30)/(%SiO2 + 2) mg/m^3 TWA total dust : (250)/(%SiO2 + 5) mppcf TWA respirable fraction : (10)/(%SiO2 + 2) mg/m^3 TWA respirable fraction	IDLH: 50 mg/m^3 respirable dust TWA: 0.05 mg/m^3 respirable dust

Appropriate engineering controls

Engineering Controls Use natural cross ventilation, local (mechanical) pick-up, and/or general area mechanical cross ventilation. Ventilation pattern should be designed to prevent accumulation of asphalt vapors. Ventilation must be sufficient to maintain asphalt vapor concentrations below the TWA limits outlined above.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective gloves and protective clothing that is resistant to chemical penetration.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, a NIOSH/MSHA approved respiratory protection should be worn.

General Hygiene Considerations Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid		
Appearance	Viscous	**Odor**	Solvent (Mineral Spirits)
Color	Black	**Odor threshold**	No information available

Property	**Values**	**Remarks • Method**
pH	N/A	Not applicable
Melting point/freezing point	No information available	
Boiling point / boiling range	> No information available	
Flash point	> 40.5 °C / > 105 °F	Setaflash
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		No data available.
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	.96 - 1.04	Water = 1g/ml
Water solubility	Insoluble	
Solubility in other solvents	Soluble in aromatic and aliphatic solvents.	
Partition coefficient	No information available	No data available.
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	Vapor accumulation could flash or explode if ignited.	
Oxidizing properties	None	

Other Information

Softening point	Not applicable
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	Not applicable

10. STABILITY AND REACTIVITY

Reactivity

Not applicable — Not applicable

Chemical stability

Stable.

Possibility of Hazardous Reactions

None under normal use.

Hazardous polymerization — Hazardous polymerization does not occur.

Conditions to avoid

Avoid static discharge. Avoid heat, sparks, and open flame.

Incompatible materials

Strong acids. Strong oxidizing agents.

Hazardous Decomposition Products

Combustion may produce carbon monoxide, carbon dioxide, and other asphyxiants.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information — Toxicological testing has not been conducted for this product overall. Available toxicological data for individual ingredients are summarized below.

Inhalation — Avoid breathing vapors or mists.

Eye contact — Avoid contact with eyes. Contact with eyes may cause irritation.

Skin contact — May cause irritation.

Ingestion — If swallowed, do not induce vomiting. Get medical attention immediately. Not an expected route of exposure.

Component Information

* The IARC Monograph (Vol. 103, 2013, Bitumen and Bitumen Emissions) defines Asphalt as 'Group 2B, Possible Carcinogen to Humans'. This definition is based on studies of exposure to Asphalt fumes at elevated temperatures. The Monograph states that temperature plays an important role in determining the degree of exposure and also the carcinogenic potential of bitumen emissions. This same Monograph states that Asphalt is non volatile at ambient temperature. There is no data presented in the Monograph to demonstrate that Asphalt at ambient temperature is considered a carcinogen. Since the normal use of this product is at ambient temperature, the Asphalt used in this product is not listed as a carcinogen. No other national or international agency has defined Asphalt as a carcinogen.

** No significant exposure to Crystalline Silica (Quartz) is thought to occur during the use of products in which Crystalline Silica (Quartz) is bound to other materials, such as in paints and coatings. As one reference, see California Office of Health Hazard Assessment at: http://www.oehha.org/prop65/CRNR_notices/safe_use/sylicasud2.html

*** The IARC Monograph (Vol 93, 2010, Carbon Black, Titanium Dioxide, Talc) states: "Operators in user industries who handle fluffy or pelleted Carbon Black during rubber, paint and ink production are expected to have significantly lower exposures to Carbon Black than workers in Carbon Black production. Other workers in user industries who handle it occasionally have little opportunity for exposure. And further…"End-users of these products (rubber, ink or paint) are unlikely to be exposed to airborne Carbon Black particles, which are bound within the product matrix."

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Asphalt (at Ambient Temperature) 8052-42-4	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-
Cellulose Fiber 9004-34-6	> 5 g/kg (Rat)	> 2 g/kg (Rabbit)	> 5800 mg/m^3 (Rat) 4 h
Nonane 111-84-2	-	-	= 3200 ppm (Rat) 4 h

QUARTZ 14808-60-7	= 500 mg/kg (Rat)	-	-

Information on toxicological effects

Symptoms Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Can cause skin irritation.
Serious eye damage/eye irritation Irritating to eyes.
Irritation Irritating to eyes, respiratory system and skin.
Corrosivity Not classified.
Sensitization May cause sensitization of susceptible persons.
Germ cell mutagenicity This product does not contain any ingredients that cause germ cell mutagenicity.
Carcinogenicity The table below indicates whether each agency (ACGIH, IARC, NTP, or OSHA) has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydrated Aluminum-Magnesium Silicate (Attapulgite) 12174-11-7	-	Group 2B Group 3	-	X

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)
A1 - Known Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen
A4 - Not Classifiable as a Human Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans
Group 3 - Not classifiable as a human carcinogen.
NTP (National Toxicology Program)
Known - Known Carcinogen
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity None known.
Developmental Toxicity None known.
Teratogenicity None known.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration hazard No information available.

Numerical measures of toxicity - No information available

The following values are calculated based on chapter 3.1 of the GHS document For exterior use only. Do not use indoors.

ATEmix (oral) 7,147.00
ATEmix (dermal) 2,859.00

12. ECOLOGICAL INFORMATION

Ecotoxicity

100% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical Name	Partition coefficient
Asphalt (at Ambient Temperature) 8052-42-4	6

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable local, regional, national and international laws and regulations.

Contaminated packaging Do not reuse container.

14. TRANSPORT INFORMATION

DOT DOT Ground: Not regulated if shipped in containers < 119 gallons (450 liters).

TDG unknown

ICAO (air) unknown

IMDG unknown

RID unknown

ADR unknown

ADN unknown

15. REGULATORY INFORMATION

International Inventories

TSCA All of the components of this product are listed on the US TSCA (Toxic Substances Control Act) Inventory or are exempt.

DSL/NDSL All of the components of this product are listed on the DSL.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

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

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65
Hydrated Aluminum-Magnesium Silicate (Attapulgite) - 12174-11-7	Carcinogen
QUARTZ - 14808-60-7	Carcinogen

U.S. State Right-to-Know Regulations

This product contains the following substances regulated by various State Right-to-Know regulations.

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Asphalt (at Ambient Temperature) 8052-42-4	X	X	X
Mineral Spirits (with < 0.1% Benzene) 8052-41-3	X	X	X
Cellulose Fiber 9004-34-6	X	X	X
Kaolin 1332-58-7	X	X	X
Nonane 111-84-2	X	X	X
QUARTZ 14808-60-7	X	X	X

U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA **Health hazards** 2 **Flammability** 2 **Instability** 0 **Physical and Chemical Properties** -

HMIS **Health hazards** 2 **Flammability** 2 **Physical hazards** 0 **Personal protection** -

Chronic Hazard Star Legend ** = Chronic Health Hazard*

Prepared By FBC Administrative Services Department
Issue Date 09-May-2015
Revision Date 25-May-2015
Revision Note
No information available

Disclaimer
The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet

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SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Styrene Butadiene Styrene (SBS) Modified Bitumen Roofing Sheets
CAS #: Mixture (Article)
Generic Name: Modified Bitumen Roll Roofing
Chemical Name: Asphalt Mixture (Article)
Chemical Family: N/A

Manufacturer Information
SR Products
1380 East Highland Road
Macedonia, OH 44056

Non-Emergency Telephone
330-998-6500
Internet Website: www. simonroofingproducts.com
Emergency: 1-800-424-9300 (Chemtrec)

TRADE NAME: SRM PLY 60, SRM PLY 90 TG, SRM PLY BASE, PARS ALT 190 S SBS, PARS ALT 190 FR GR, PARS ALT 190TG SBS, PARS ALT 190 FR TG SBS, PARS ALT 250FR SBS, SRM PLY G4 FR (GR), SRM PLY FR GR TG SBS

2. HAZARDS IDENTIFICATION

As defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200, the products listed below are considered articles and do not require an SDS. In addition, articles are not included in the scope of the Globally Harmonization System (GHS). As such, the GHS labeling elements are not included on this SDS. All components listed for this product are bound within the product. When the products are handled as intended and under normal conditions of use, there is no evidence that any of the ingredients are released in amounts that pose a significant health risk. Although these products are not subject to the OSHA Standard or GHS labeling elements SR Products shall disclose as much health and safety information as possible to ensure that this product is handled and used properly. This SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and be made available for employees and other users of this product. In addition, the recommendations for handling and use of these products should be included in worker safety training programs.

ADDITIONAL HAZARD INDENTICATION INFORMATION:

General: Under normal use conditions, this product is not expected to create any unusual emergency hazards.

Appearance and Odor: Black sheet in roll form. Surfaces may include roofing granules, sand, slag, talc or a polyethylene film. Slight asphaltic odor when heated.

Potential Health Hazards:

Primary Exposure Routes

Primary: Nuisance dust - inhalation, irritation - skin and eye contact.

Eye Contact: May cause irritation to the eyes. Eye irritation may be treated by flushing eyes with large amounts of water. If irritation persists, seek medical attention. Contact with hot product is abnormal and a possible emergency circumstance because of its adhesive and temperature features, the molten asphalt contact with eyes may cause physical eye damage due to adhesive properties as well as thermal burns. Seek medical attention immediately in case of eye contact with molten asphalt contact.

Skin Contact: May cause irritation (itching) to the skin. Skin irritation may be treated by gently washing affected area with soap and warm water. Contact with molten asphalt can result in physical injury/damage and thermal burns. Seek medical attention immediately in case of molten asphalt contact.

Ingestion: This product is not intended to be ingested. If ingested, it may cause irritation of the digestive system.

Inhalation: May cause irritation of the upper respiratory tract. Acute exposure may irritate mucous membranes with tightness in chest, coughing, wheeziness, or congestion. Individuals affected should be moved to fresh air.

Acute Health Hazards:

NIOSH has found that studies of workers exposed to asphalt fumes have repeatedly found irritation of the serous membranes of the conjunctivae (eye irritation) and the mucous membranes of the upper respiratory tract (nasal and throat irritation).

Chronic Health Hazards:

Occupational exposures to asphalt, oxidized asphalt, silica and formaldehyde, which may occur from these products during abnormal conditions of use or emergencies, have been found to be probable or known human carcinogens, and may cause serious irreversible lung disease and other non-cancerous effects. See Section 11 of this document.

Medical Conditions Aggravated by Exposure:

Exposure to dust may aggravate pre-existing upper respiratory and lung diseases or conditions.

3. COMPOSITION INFORMATION ON INGREDIENTS

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

Chemical Name	Common Name and synonyms	CAS #	Percent Weight	Trade Secret
Asphalt	Asphalt	8052-42-4	30-55	~
Calcium Carbonate	Limestone	1317-65-3	25-50	
Styrene Butadiene Polymer	Styrene Butadiene Polymer	9003-55-8	5-20	~
Crystalline Silica	Rose quartz/sand	14808-60-7	0.1-1	
Granules	Roofing Granules	n/a	0-40	
Coal Slag	Coal Slag	n/a	0-40	
Calcium Borate (used in FR products only)	Colemanite	12007-56-6	0-30	~
Polyester fiber	Polyester fiber	n/a	0-10	~
Fiberglass Mat or Filament glass fiber	Fiberglass Mat or Filament glass fiber	65997-17-3	0-10	~
Aluminum Foil (used on DuraFlex Alum & DuraSTAR products only)	Aluminum Foil	7429-90-5	0-5	~
Gilsonite Resin	Uintahite	12002-43-6	0-5	~
Titanium Dioxide (used in DuraSTAR products only)	Titanium Dioxide	13463-67-7	0-5	~
Polyethylene (used on TG products only)	Polyethylene	9002-88-4	0-5	~
Polypropylene (used on DuraSTAR G4 TGW only)	Polypropylene	9010-79-1	0-5	
Siliconized Polypropylene (used on RapidGRIP and DuraSTAR G4 MOP only)	Release Film	Mixture	0-5	
Talc (containing no asbestos fibers)	Talcum	14807-96-6	0-1	
There are no additional ingredients present which, within the current knowledge of the supplier and/or in the concentrations applicable, are classified as hazardous to the health or environment and would hence require reporting in this section.				

Granules are used only on products with an M suffix and an FR suffix. It is not used on products with an S suffix.

Coal Slag is a mixture containing Amorphous Silicon Dioxide, Aluminum Oxide, Iron Oxide, Calcium Oxide, Potassium Oxide, Titanium Oxide, Magnesium Oxide, Sodium Oxide, Quartz, Cristobalite, and Beryllium. See also Sections 8 and 11 of this document. Coal Slag may be used as either a bottom surfacing and/or a top surfacing on certain granule surfaced non-TG products.

Calcium Borate (colemanite) are used only in products with an FR suffix. It is not used on products without an FR suffix.

Pars Alt 190 and Pars Alt 250 brand products use polyester fiber and may also contain a filament glass fiber. SRM Ply 60, 90 and G prefixed products use a fiberglass mat and does not use a polyester or filament glass fiber.

Talc is used as a top surfacing on selvage edges of certain non-TG products.

The titanium dioxide is inextricably bound in the adhesive matrix so the carcinogen classification does not apply.

4. FIRST AID MEASURES

General: During installation, this product may release dust or fumes. Due to the large size of the particles, minimal exposure to airborne dust is expected. Primarily a nuisance dust. Asphalt and its fumes can irritate the skin, eyes and upper respiratory tract. If dust or fumes are inhaled to excess (e.g. in a confined work space) irritation of the upper respiratory tract may occur. See Section 11 for more details.

Inhalation: If breathing difficulty is experienced, move to a fresh air place. Drink water to clear throat and blow nose to remove dust. If difficulty persists,* seek medical attention.

Skin Contact: Wash gently with soap and warm water to remove dust and fibers. For molten asphalt contact, cool with ice or water. Do not attempt to remove asphalt immediately. Cover with petroleum jelly (Vaseline). Remove the asphalt has softened. If irritation develops, use a delicate cream. If symptoms persist, in case of redness or blistering seek medical attention for burn treatment.

Eye Contact: Do not rub or scratch eyes. Dust particles may cause the eye to be scratched. Bathe eye immediately with a large amount of water for at least 15 minutes. If irritation persists, seek medical attention immediately.

Ingestion: This product is not intended to be ingested. If ingested, it may cause temporary irritation to the digestive system. Rinse mouth with water to remove fibers, and drink plenty of water to help reduce the irritation.

Most important symptoms /effects, acute and delayed indication of immediate medical and special treatment needed:
Upper respiratory passages, skin and eyes are primary exposure routes. As with any dust, pre-existing upper respiratory and lung diseases or conditions that may be aggravated.

Physicians note: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media: Dry chemical, dry powder, CO2, foam, water fog or water spray.

Hazardous combustion products: Carbon dioxide and carbon monoxide.

Fire-fighting Equipment instructions: No special procedures are expected to be necessary for this product. Normal firefighting procedures should be followed such as standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Unusual fire and explosive hazards: n/a

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: N/A

Environmental Precautions: Pick up large pieces of material. Vacuum dusts. If sweeping is necessary, use a dust suppressant such as water. Do not dry sweep dust accumulation. These procedures will help to minimize potential exposures.

Clean-up Methods: This product, as supplied, is not regulated as a hazardous waste by the U.S. Environmental Protection Agency (EPA) under Resource Conversation and Recovery Act (RCRA) regulations. Comply with state and local regulations for disposal. If you are unsure of the regulations, contact the local Public Health Department, or the local office of the EPA.

7. HANDLING AND STORAGE

Handling: Use protective equipment as described in Section 8 of this material safety data sheet when handling uncontained material. Avoid direct exposure to very high heat or flame.

Storage: Store standing upright on end. Material should be kept dry, and protected from the elements. Recommended storage temperature is between 55°F to 95°F (12.7°C to 35°C). Warehouse storage should be in accordance with package directions.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Read all product instructions before using. No ACGIH or OSHA PEL is assigned to this mixture.
. Exposure limits for the component materials are shown below.
. This product, as supplied, is not believed to contain any hazardous material that exceeds exposure limits established by OSHA.

Components	ACGIH TLV	OSHA PEL	NIOSH IDLH
Asphalt (CAS 8-52-42-4)	TWA: 0.5 mg/m^3 benzene soluble aerosol fume, inhalable fraction	-	Ceiling: 5 mg/m^3 fume 15 min
Calcium Carbonate (CAS 1317-65-3)	-	TWA: 15 mg/m^3 total dust TWA: 5 mg/m^3 respirable fraction (vacated) TWA: 15 mg/m^3 total dust (vacated) TWA: 5 mg/m^3 respirable fraction	TWA: 10 mg/m^3 total dust TWA: 5 mg/m^3 respirable dust
Crystalline silica (quartz) (CAS 14808-60-7)	TWA: 0.025 mg/m^3 respirable fraction	(vacated) TWA: 0.1 mg/m^3 respirable dust : (30)/(%SiO2 + 2) mg/m^3 TWA total dust : (250)/(%SiO2 + 5) mppcf TWA respirable fraction : (10)/(%SiO2 + 2) mg/m^3 TWA respirable fraction	IDLH: 50 mg/m^3 respirable dust TWA: 0.05 mg/m^3 respirable dust
Calcium Borate (colemanite) (12007-56-6)	-	-	15 mg/m³
Continuous filament glass fibers (CAS 65997-17-3)	1 fiber/cm³ TWA – respirable fibers	-	5 mg/m³ - TWA (inhalable fraction)
Aluminum Foil (CAS 7429-90-5)	1 mg/m3 TWA (respirable fraction)	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)	-
Titanium Dioxide (CAS 13463-67-7)	10 mg/m3 TWA	15 mg/m3 TWA (total dust) 10 mg/m3 TWA (total dust)	-
Talc (containing no asbestos) (CAS 14807-96-6)	2 mg/m³ TWA (Particulate matter containing no asbestos and <1% crystalline)	Respirable Dust: (Less than 1% crystalline silicia) 2 mg/m³ TWA ('Silicates')	-
None of the components in this product are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.			

Individual protection measures, such as personal protective equipment:

Eye/face protection: Wear safety glasses with side shields (or goggles) are recommended.
Hand protection: Leather or cotton gloves are recommended.
Skin protection: Loose fitting, long-sleeved shirt and long pants and cap should be worn to protect skin from irritation dust. Construction grade work shoes are recommended.
Respiratory protection: Not required unless used with asphalt or coal tar mastics. In those cases, follow the specific precautions for the material being used.
Ventilation: No special ventilation systems are required when using this product.
Thermal hazards: n/a

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid
Appearance:	Various colors and surfaces. Thin black asphaltic roll roofing.
Color:	Smooth material is black. Mineral material varies in colors.
Odor:	Asphaltic odor
pH:	None Established
Flash Point:	over 600°F (315°C)
Melting point:	250°F (121°C)
Freezing point:	None Established
Boiling point:	None Established
Evaporation rate:	None Established
Flammability (solid, gas):	None Established
Flammability Limits:	
Lower/upper %:	None
Explosive Properties:	None Established
Oxidizing Properties:	None Established
Vapor Pressure:	None Established
Vapor Density:	None Established
Solubility in Water:	Insoluble
Solubility in other solvents	None Established
Partition coefficient (n-octanol/water)	None Established
Auto-ignition temp:	860°F (460°C)
Decomposition temp:	None Established

Kinematic Viscosity:	None Established
Dynamic Viscosity:	None Established
Softening Point:	None Established
Molecular Weight:	None Established
VOC Content (%)	None Established
Density	None Established
Specific gravity:	None Established

10. STABILITY AND REACTIVITY

Chemical Stability
This product is a stable material. This product is not reactive.

Incompatibility
This product will react with strong oxidizing agents, reducing agents, strong acids and alkalis.

Hazardous Decomposition
Decomposition from this material are those that would be expected from any organic (carbon-containing) material. These decomposition products may include oxides of carbon (carbon dioxide, carbon monoxide, carbon particles, and hydrocarbons) are derived from burning.

Hazardous Polymerization
Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
Dust from this product is an irritant and may cause irritation or scratchiness of the throat, and/or itching in the eyes and skin.

Information on likely routes of exposure:

Product Information:	Toxicological testing has not been conducted for this product overall. Available toxicological data for individual ingredients are summarized below.
Eye Contact:	May cause irritation to the eyes. Eye irritation may be treated by flushing eyes with large amounts of water. If irritation persists, seek medical attention. Contact with hot product is abnormal and a possible emergency circumstance because of its adhesive and temperature features, the molten asphalt contact with eyes may cause physical eye damage due to adhesive properties as well as thermal burns. Seek medical attention immediately in case of eye contact with molten asphalt contact.
Skin Contact:	May cause irritation (itching) to the skin. Skin irritation may be treated by gently washing affected area with soap and warm water. Contact with molten asphalt can result in physical injury/damage and thermal burns. Seek medical attention immediately in case of molten asphalt contact.
Ingestion:	This product is not intended to be ingested. If ingested, it may cause irritation of the digestive system.
Inhalation:	May cause irritation of the upper respiratory tract. Acute exposure may irritate mucous membranes with tightness in chest, coughing, wheeziness, or congestion. Individuals affected should be moved to fresh air.

Component	Oral LD50	Dermal LD50	Inhalation LC50
Asphalt (at Ambient Temperature) (CAS 8052-42-4)	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-
Crystalline Silica (quartz) (CAS 14808-60-7)	> 500 mg/kg (Rat)	-	-
Calcium Borate (Colemanite) (CAS 12007-56-6)	> 5600 mg/kg (Rat)	-	-
Titanium Dioxide (CAS 13463-67-7)	> 10000 mg/kg (Rat)	-	-
Polyethylene (CAS 9002-88-4)	-	-	12 g/m^3/30M (Mouse)
Polypropylene (CAS 9010-79-1	-	-	12 g/m^3/30M (Mouse)
* Estimates for product may be based on additional component data not shown.			

Information on toxicological effects:

Symptoms: No information available for this product.

Carcinogenicity: There is no data for this product as a whole.

Carcinogenicity: The table below indicates whether each agency (IARC, NTP, or OSHA) has listed any ingredient as a carcinogen.

IARC Monographs, Overall Evaluation of Carcinogenicity

Component Name	ACGIH	IARC	NTP	OSHA (29 CFR 1910.1001-1050)
Asphalt (at Ambient Temperature) (CAS 8052-42-4)	-	2B	-	-
Quartz (CAS 14808-60-7)	A2	1	Known	X
Continuous filament glass fibers (CAS 65997-17-3)	A4	3	-	-
Aluminum Foil (CAS 7429-90-5)	A4	-	-	-
Titanium Dioxide (CAS 13463-67-7)	A4	2B	-	-
Polypropylene (CAS 9003-07-0)	-	3	-	-
Talc (CAS 14807-96-6)	A4	3	-	-
Polyethylene (CAS 9002-88-4)	-	3	-	-

Legend			
ACGIH (American Conference of Governmental Industrial Hygienists)		*IARC (International Agency for Research on Cancer)*	
A1	*Known Human Carcinogen*	*Group 1*	*Carcinogenic to Humans*
A2	*Suspected Human Carcinogen*	*Group 2A*	*Probably Carcinogenic to Humans*
A3	*Animal Carcinogen*	*Group 2B*	*Possibly Carcinogenic to Humans*
A4	*Not Classified as a Human Carcinogen*	*Group 3*	*Not Classifiable as a Human Carcinogen*
NTP (National Toxicology Program)		*OSHA (Occupational Safety and health Administration of the US Department of Labor)*	
Known	*Known Carcinogen*	*X*	*Present*
Reasonably Anticipated	*Reasonably Anticipated to be a Human Carcinogen*		

Component Information: The statements are provided for informational purposes:

* The IARC Monograph (Vol. 103, 2013, Bitumen and Bitumen Emissions) defines Asphalt as 'Group 2B, Possible Carcinogen to Humans'. This definition is based on studies of exposure to Asphalt fumes at elevated temperatures. The Monograph states that temperature plays an important role in determining the degree of exposure and also the carcinogenic potential of bitumen emissions. This same Monograph states that Asphalt is non-volatile at ambient temperature. There is no data presented in the Monograph to demonstrate that Asphalt at ambient temperature is considered a carcinogen.

* Asphalt (CAS # 8052-42-4 and oxidized asphalt 64742-93-4): The International Agency for Research on Cancer (IARC) has stated that studies of workers exposed to asphalt provide inadequate evidence of carcinogenicity. IARC had previously classified asphalt as a Group 3 substance. Animal studies in which high concentrations of asphalt fumes were breathed for extended periods of time did not indicate any cancer effects. Bronchitis and pneumonitis were observed. Two studies where condensed fractions of certain asphalt fume condensates collected for these studies were repeatedly applied to the skin of laboratory animals reported the induction of skin cancers. The asphalt fume condensates collected for these studies were subjected to extremely high temperatures (601°F/316°C) and were heated for seven to ten hours while being continually stirred. This is not typical of any asphalt application. Trace amounts of polynuclear aromatic hydrocarbons (PAHs) may be present in some asphalts and can be generated upon excessive heating, which results in thermal cracking of the asphalt compounds. Some of these PAHs have been identified as having potential carcinogenic and reproductive health effects.

* No significant exposure to Crystalline Silica (Quartz) is thought to occur during the use of products in which Crystalline Silica (Quartz) is bound to other materials, such as in paints and coatings. As one reference, see California Office of Health Hazard Assessment at: http://www.oehha.org/prop65/CRNR_notices/safe_use/sylicasud2.html

* The IARC Monograph (Vol 93, 2010, Carbon Black, Titanium Dioxide, Talc) states: "No significant exposure to primary particles of talc is thought to occur during the use of products in which talc is bound to other materials."

* The IARC Monograph (Vol 93, 2010, Carbon Black, Titanium Dioxide, Talc) states: "No significant exposure to primary particles of Titanium Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints."

* This product contains a small amount of polyaromatic hydrocarbons which have been shown to cause cancer and respiratory damage in laboratory animals. Some asphalts and some asphalt solutions have produced skin cancer in laboratory animals. No association has been established between industrial exposure and cancer. (IRAC*, PART 4, VOLUME 35). Due to size of the particles, minimal exposure to airborne dust is expected.

Reproductive toxicity: Based on available data, the classification criteria are not met.
Specific target organ toxicity: n/a
- Single exposure: n/a
- Repeated exposure: n/a

Aspiration hazard: not classified
Chronic effects: Not expected to be hazardous by OSHA criteria.
Further information: Symptoms may be delayed.

Numerical measures of toxicity – No information available

12. ECOLOGICAL INFORMATION

Biodegradation: Not Established
Chemical degradation: Not Established
Bioaccumulation: Not Established

Agility: Not Established
Ecotoxicity influence on Organisms: Not Established
Ecotoxicity in water: Not Established
Other toxicity: Not Established

13. DISPOSAL CONSIDERATIONS

This product, as supplied, is not regulated as a hazardous waste by the U.S. Environmental Protection Agency (EPA) under Resource Conversation and Recovery Act (RCRA) regulations. Comply with state and local regulations for disposal. If you are unsure of the regulations, contact the local Public Health Department, or the local office of the EPA.

14. TRANSPORTATION INFORMATION

Shipping Information
This product is not classified as a hazardous material for transport.

DOT (Ground): N/A
Hazard Class: N/A
DOT Label: N/A
Air: N/A
Water: N/A
Freight Classification: Roofing composition or prepared roofing.

15. REGULATORY INFORMATION

US Federal Regulations:
There is no regulation on this product as a whole.

SARA Title III:

SRM Ply Aluminum contains one or more of the following chemicals which are required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) or CERCLA (40 CFR 302.4).

SARA 313:
Aluminum Foil (7429-90-5): 1.0% de minimis concentration (dust or fume only)

State Regulations
A: General Product Information
Other state regulations may apply. Check individual state requirements.
B: Component Analysis - State
The following components appear on one or more of the following state hazardous substances lists:

US State Regulations:

Component	CA	FL	MA	MN	NJ	PA
Asphalt (CAS 8052-42-4)	YES	NO	YES	YES	YES	YES
Calcium Carbonate (Limestone) (CAS 1317-65-3)	YES	NO	YES	YES	YES	YES
Quartz (CAS 14808-60-7)	YES	NO	YES	YES	YES	YES
Continuous filament glass fibers (CAS 65997-17-3)	NO	NO	NO	YES	NO	NO
Aluminum Foil (CAS 7429-90-5)	YES	NO	YES	YES	YES	YES
Titanium Dioxide (CAS 13463-67-7)	NO	NO	YES	YES	YES	YES
Talc (CAS 14807-96-6)	YES	NO	YES	YES	YES	YES

US EPA Label Information
EPA Pesticide Registration: n/a

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.
US. California Proposition 65
US - California Proposition 65 - CRT: Carcinogenic substance
Quartz (CAS 14808-60-7) Listed

TSCA Status
This product and its components are listed on the TSCA 8(b) inventory.
None of the components listed in this product are listed on the TSCA Export Notification 12(b) list.

16. OTHER

NFPA	Health Hazards 1	Flammability 1	Instability 0	Physical and Chemical Properties -
HMIS	Health Hazards 1	Flammability 1	Physical Hazards 0	Personal Protection -
Chronic Hazard Star Legend		** = Chronic Health Hazard*		

Issue Date:	1/30/2019	SDS Format
Last Revision Date:	1/30/2019	SDS Format
Original Issue Date:	1/30/2019	SDS Format
Revision Disclosure:	1/30/2019	SDS Format

Prepared by:
SR Products
1380 East Highland Road
Macedonia, OH 44056

The information and recommendations provided in this Safety Data Sheet are presented in good faith and believed to be correct as of the date hereof. The manufacturer makes no representations as to the completeness or accuracy thereof. Information supplied upon the condition that the persons receiving said information will make their own determination as to its suitability for their particular purpose prior to use. In no event will the manufacturer be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. No representations or warranties, either expressed or implied, including the merchantability or fitness for a particular purpose are made herein with respect to this information or the product to which information refers.
Information contained herein is deemed to be reliable, conservative and accurate. SR Products reserves the right to change the design, specification or any other features at any time, without notice, while otherwise maintaining regulatory compliance.

End of Safety Data Sheet

Safety Data Sheet

SR GLASS MESH II

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

1.1 Product Identifier

Product form: Article
Trade name: SR GLASS MESH II
Product code: 8665115, 8665125

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture: Reinforcement in Roofing and Waterproofing Applications. Mixture of fibrous glass textile cloth and acrylic-vinyl acetate copolymer.

1.3 Details of the supplier of the safety data sheet

SR Products
1380 East Highland Road
Macedonia, OH 44056
Telephone: 330-998-6500

1.4 Emergency telephone number

Emergency Number: CHEMTREC: 1-800-424-9300 (24 hours)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS-US classification: Not classified

2.2 Label elements

GHS-US labelling: No labelling applicable

2.3 Other hazards

Other hazards not contributing to the classification: As defined in the OHSA Hazard Communication Standard, 29 CFR 1910.1200, the product or products listed here are considered articles and do not require an SDS. In addition, articles are not included in the scope of the Globally Harmonization System (GHS). As such, the GHS labeling elements are not included on this SDS. All components listed for this product are bound with in the product. When handled as intended and under normal use conditions of use, there is no evidence that any of the ingredients are released in amounts that pose a significant health risk. Although these products are not subject to the OHSA Standard or GHS Labeling elements SR Products would like to disclose as much health and safety information as possible to ensure that this product is used and handled properly. This SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and be made available for employees and other users of this product. In addition, the recommendations for handling and use of these products should be included in worker training programs.

2.4 Unknown acute toxicity (GHS-US)

Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Not applicable

3.2 Mixture

Full text of H-phrases: see section 16

4. FIRST AID MEASURES

4.1 Description of first aid measures

First-aid measures after inhalation:	Not expected to be an inhalation hazard. Allow victim to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact:	Wash with water and soap.
First-aid measures after eye contact:	Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion:	Not expected to be an ingestion hazard. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/injuries:	Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/injuries after skin contact:	May cause skin irritation.

4.3 Indication of any immediate medical attention and special treatment needed

No additional information available

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:	Dry Chemical. Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media:	Do not use a heavy water stream.

5.2 Special hazards arising from the substance or mixture

Fire hazard:	The resin binder will burn.
Explosion hazard:	Product is not explosive.

5.3 Advice for firefighters

Firefighting instructions:	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting:	Do not enter fire area without proper protective equipment, including respiratory protection.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

No additional information available

6.1.2 For emergency responders

No additional information available

6.2 Environmental precautions

No additional information available

6.3 Methods and material for containment and cleaning up

No additional information available

6.4 Reference to other sections

See Heading 8. Exposure controls and personal protection.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Precautions for safe handling:	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Keep away from naked flames/heat.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions:	Store in a dry place. Keep cool. Keep away from Heat Sources.
Incompatible products:	Strong bases. Strong acids.
Incompatible materials:	Sources of ignition.

7.3 Specific end use(s)

No additional information available

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 Control parameters

SR GLASS MESH II	
ACGIH	Not applicable
OSHA	Not applicable

8.2 Exposure controls

Appropriate engineering controls:	Ensure good ventilation.
Personal protective equipment:	Gloves. Safety glasses.

Hand protection:	Wear protective gloves.
Eye protection:	Safety glasses.
Other information:	Do not eat, drink or smoke during use.

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Solid
Color:	White; Black; Yellow
Odor:	No data available
Odor threshold:	No data available
pH:	No data available
Relative evaporation rate (butylacetate=1):	No data available
Melting point:	No data available
Freezing point:	No data available
Boiling point:	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Flammability (solid, gas):	No data available
Vapor pressure:	No data available
Relative vapor density at 20 °C:	No data available
Relative density:	No data available
Solubility:	No data available
Log Pow:	No data available
Log Kow:	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available
Explosive limits:	No data available

9.2 Other information

No additional information available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No additional information available

10.2 Chemical stability

No additional information available

10.3 Possibility of hazardous reactions

No additional information available

10.4 Conditions to avoid

No additional information available

10.5 Incompatible materials

Oxidizing agent.

10.6 Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:	Not classified
Skin corrosion/irritation:	Not classified
Serious eye damage/irritation:	Not classified
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
Specific target organ toxicity (single exposure):	Not classified
Specific target organ toxicity (repeated exposure):	Not classified
Aspiration hazard:	Not classified
Potential adverse human health effects and symptoms:	Based on available data, the classification criteria are not met.
Symptoms/injuries after skin contact:	May cause skin irritation.

12. ECOLOGICAL CONSIDERATIONS

12.1 Toxicity

Ecology - general: No environmental hazard.

12.2 Persistence and degradability

SR GLASS MESH II	
Persistence and degradability	Not established.

12.3 Bioaccumulative potential

SR GLASS MESH II	
Bioaccumulative potential	Not established.

12.4 Mobility in soil

No additional information available

12.5 Other adverse effects

Effect on ozone layer:

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste treatment methods:	The product, as supplied, is not regulated as a hazardous waste by the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Comply with state and local regulations for disposal.
Waste disposal recommendations:	Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials:	Avoid release to the environment.

14. TRANSPORT INFORMATION

In accordance with DOT
Not regulated for transport

Additional information

Other information:	No supplementary information available.
ADR	No additional information available
Transport by sea	No additional information available
Air transport	No additional information available

15. REGULATORY INFORMATION

15.1 US Federal regulations

SR GLASS MESH II	
Bioaccumulative potential	Not established.

15.2 International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

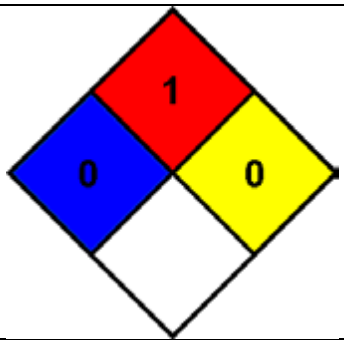
Not classified

15.2.2 National regulations

15.3 US State regulations

No additional information available

16. OTHER INFORMATION

Other information:	None.	
NFPA health hazard:	0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.	
NFPA fire hazard:	1 - Must be preheated before ignition can occur.	
NFPA reactivity:	0 - Normally stable, even under fire exposure conditions, and are not reactive with water.	
HMIS III Rating		
Health:	0 Minimal Hazard - No significant risk to health	
Flammability:	1 Slight Hazard	
Physical:	0 Minimal Hazard	
Personal Protection:	B	

TBC SDS US (GHS Hazcom 2012)

The information and recommendations contained herein are to the best of SR Products knowledge and belief, accurate and reliable as of the date issued. SR Products does not warrant or guarantee their accuracy or reliability, and SR Products shall not be liable for any loss or damage arising out of the use thereof. The information and recommendations are offered for the users consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. It is also the users responsibility to make certain that it is relying upon the most recent, updated, information and recommendations available from SR Products. The Environmental Information included, as well as the Hazardous Material Identification System (HMIS) and National Fire Protection Association (NFPA) ratings, have been included by SR Products in order to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developers of these rating systems, together with SR Products interpretation of the available data.

Safety Data Sheet

MAY, 2015

Product identifier

Product Name SR Asphalt Primer Low VOC

Other means of identification

Product Code 8615320

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Asphaltic based primer.

Uses advised against For exterior use only. Do not use indoors.

Details of the supplier of the safety data sheet

Manufacturer Address SR Products
1380 East Highland Road
Macedonia, Ohio 44056
(330) 998-9500

Emergency telephone number

Company Phone Number CHEMTREC

24 Hour Emergency Phone Number 800-424-9300

Emergency Telephone Call CHEMTREC Day or Night:
Within USA and Canada: 1-800 424-9300
Outside USA and Canada: 1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Specific target organ toxicity (repeated exposure)	Category 1
Aspiration toxicity	Category 1
Flammable liquids	Category 3

Label elements

Emergency Overview

Danger

Hazard statements

Causes damage to organs through prolonged or repeated exposure
May be fatal if swallowed and enters airways
Flammable liquid and vapor

Appearance Viscous **Physical state** Liquid **Odor** Solvent (Mineral Spirits)

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Keep away from heat/sparks/open flames/hot surfaces.
Keep container tightly closed when product is not in use.
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Get medical advice/attention if you feel unwell
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

• May be harmful in contact with skin
• Toxic to aquatic life with long lasting effects
Unknown acute toxicity 2.29864% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Mixture

This product is a mixture.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Common name Low VOC Primer.
Synonyms None.
Chemical nature Organic solvents and additives.

Chemical Name	CAS No.	Weight-%	Trade Secret
Asphalt (at Ambient Temperature)	8052-42-4	60 - 70%	*
Mineral Spirits (with < 0.1% Benzene)	8052-41-3	30 - 40%	*
Nonane	111-84-2	0 - 10%	*

4. FIRST AID MEASURES

Description of first aid measures

General advice Contains petroleum distillate. Harmful or fatal if swallowed. Vapor harmful. May affect the brain or central nervous system causing dizziness, headache, or nausea. Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.

Eye contact In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin contact Wash thoroughly with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. In the case of skin irritation or allergic reactions see a physician.

Inhalation Move to fresh air in case of accidental inhalation of vapors. If continued difficulty with breathing is experienced, get medical attention immediately.

Ingestion Not an expected route of exposure. If swallowed, do not induce vomiting. Get medical attention immediately.

Self-protection of the first aider First aider: Pay attention to self-protection!.

Most important symptoms and effects, both acute and delayed

Symptoms May cause skin irritation. May cause eye irritation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical. Carbon dioxide (CO2). Sand. Use foam or water FOG as a last resort.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical
No information available.

Hazardous combustion products Thermal decomposition (burning) may release irritating, corrosive and/or toxic gases, vapors and fumes.

Explosion data

Sensitivity to Mechanical Impact	Not sensitive.
Sensitivity to Static Discharge	May be ignited by heat, sparks or flames.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	No action should be taken involving any personal risk or without suitable training. Use personal protective equipment as required.
Other Information	Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).
For emergency responders	Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering sewers, drains, or waterways. Local authorities should be advised if significant spillages can not be contained. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment	Contain spillage with non-combustible absorbent material, e.g. sand, earth, diatomaceous earth, vermiculite.
Methods for cleaning up	Pick up the absorbed material (described just above) and transfer to properly labeled containers for disposal according to local / national regulations (see Section 13).
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Use personal protective equipment as required. Remove all sources of ignition. Use only outdoors.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a cool, dry, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition.
Incompatible materials	Strong acids. Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, is not believed to contain any hazardous material that exceeds exposure limits established by OSHA. .

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Asphalt (at Ambient Temperature) 8052-42-4	TWA: 0.5 mg/m^3 benzene soluble aerosol fume, inhalable fraction	-	Ceiling: 5 mg/m^3 fume 15 min
Mineral Spirits (with < 0.1% Benzene) 8052-41-3	TWA: 100 ppm	TWA: 500 ppm TWA: 2900 mg/m^3 (vacated) TWA: 100 ppm (vacated) TWA: 525 mg/m^3	IDLH: 20000 mg/m^3 Ceiling: 1800 mg/m^3 15 min TWA: 350 mg/m^3
Nonane 111-84-2	TWA: 200 ppm	(vacated) TWA: 200 ppm (vacated) TWA: 1050 mg/m^3	TWA: 200 ppm TWA: 1050 mg/m^3

Appropriate engineering controls

Engineering Controls Use natural cross ventilation, local (mechanical) pick-up, and/or general area mechanical cross ventilation. Ventilation pattern should be designed to prevent accumulation of solvent vapors. Ventilation must be sufficient to maintain solvent vapor concentrations below the TWA limits outlined above.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective gloves and protective clothing that is resistant to chemical penetration.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, a NIOSH/MSHA approved respiratory protection should be worn.

General Hygiene Considerations Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid		
Appearance	Viscous	**Odor**	Solvent (Mineral Spirits)
Color	Black	**Odor threshold**	No information available

Property	Values	Remarks • Method
pH	N/A	Not applicable
Melting point/freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	40.5 °C / > 105 °F	Setaflash
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		No data available.
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	0.91	Water = 1g/ml

Water solubility	Insoluble
Solubility in other solvents	Soluble in aromatic and aliphatic solvents.
Partition coefficient	No information available No data available.
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	Vapor accumulation could flash or explode if ignited.
Oxidizing properties	None

Other Information

Softening point	Not applicable
Molecular weight	No information available
VOC Content (%)	No information available
Density	7.4 to 7.7 lb/gal
Bulk density	Not applicable

10. STABILITY AND REACTIVITY

Reactivity

Not applicable Not applicable

Chemical stability

Stable.

Possibility of Hazardous Reactions

None under normal use.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid

Avoid static discharge. Avoid heat, sparks, and open flame.

Incompatible materials

Strong acids. Strong oxidizing agents.

Hazardous Decomposition Products

Combustion may produce carbon monoxide, carbon dioxide, and other asphyxiants.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Toxicological testing has not been conducted for this product overall. Available toxicological data for individual ingredients are summarized below.
Inhalation	Avoid breathing vapors or mists.
Eye contact	Avoid contact with eyes. Contact with eyes may cause irritation.
Skin contact	May cause irritation.
Ingestion	If swallowed, do not induce vomiting. Get medical attention immediately. Not an expected route of exposure.
Component Information	* The IARC Monograph (Vol. 103, 2013, Bitumen and Bitumen Emissions) defines Asphalt as 'Group 2B, Possible Carcinogen to Humans'. This definition is based on studies of exposure to Asphalt fumes

at elevated temperatures. The Monograph states that temperature plays an important role in determining the degree of exposure and also the carcinogenic potential of bitumen emissions. This same Monograph states that Asphalt is non-volatile at ambient temperature. There is no data presented in the Monograph to demonstrate that Asphalt at ambient temperature is considered a carcinogen. Since the normal use of this product is at ambient temperature, the Asphalt used in this product is not listed as a carcinogen. No other national or international agency has defined Asphalt as a carcinogen.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Asphalt (at Ambient Temperature) 8052-42-4	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-
Nonane 111-84-2	-	-	= 3200 ppm (Rat) 4 h

Information on toxicological effects

Symptoms Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Can cause skin irritation.
Serious eye damage/eye irritation Irritating to eyes.
Irritation Irritating to eyes, respiratory system and skin.
Corrosivity Not classified.
Sensitization May cause sensitization of susceptible persons.
Germ cell mutagenicity This product does not contain any ingredients that cause germ cell mutagenicity.
Carcinogenicity The table below indicates whether each agency (ACGIH, IARC, NTP, or OSHA) has listed any ingredient as a carcinogen.

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)
A1 - Known Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen
A4 - Not Classifiable as a Human Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans
Group 3 - Not classifiable as a human carcinogen.
NTP (National Toxicology Program)
Known - Known Carcinogen
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity None known.
Developmental Toxicity None known.
Teratogenicity None known.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration hazard No information available.

Numerical measures of toxicity - No information available

The following values are calculated based on chapter 3.1 of the GHS document For exterior use only. Do not use indoors.

ATEmix (oral) 10,067.00

ATEmix (dermal) 4,092.00

12. ECOLOGICAL INFORMATION

Ecotoxicity

98.56973% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical Name	Partition coefficient
Asphalt (at Ambient Temperature) 8052-42-4	6

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable local, regional, national and international laws and regulations.

Contaminated packaging Do not reuse container.

14. TRANSPORT INFORMATION

Note: DOT Ground: Regulated when shipped in containers > 119 gallons.

DOT

- **Proper shipping name** Flammable liquid, n.o.s.(Petroleum distillates)
- **Hazard Class** 3
- **Packing Group** III
- **Special Provisions** Not regulated in containers less than 119 Gallons(450 Liters)
- **Emergency Response Guide Number** 128

TDG unknown

MEX unknown

ICAO (air) unknown

IATA unknown

IMDG unknown

RID unknown

ADR unknown

ADN unknown

15. REGULATORY INFORMATION

International Inventories

TSCA	All of the components of this product are listed on the US TSCA (Toxic Substances Control Act) Inventory or are exempt.
DSL/NDSL	All of the components of this product are listed on the DSL.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

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

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

This product contains the following substances regulated by various State Right-to-Know regulations.

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Asphalt (at Ambient Temperature) 8052-42-4	X	X	X
Mineral Spirits (with < 0.1% Benzene) 8052-41-3	X	X	X
Nonane	X	X	X

111-84-2			

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	**Health hazards** 2	**Flammability** 2	**Instability** 0	**Physical and Chemical Properties** -
HMIS	**Health hazards** 2	**Flammability** 2	**Physical hazards** 0	**Personal protection** -

Chronic Hazard Star Legend ** = Chronic Health Hazard*

Prepared By FBC Administrative Services Department
Issue Date 15-Apr-2015
Revision Date 27-May-2015
Revision Note
No information available

Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet

Safety Data Sheet

MAY, 2015

* * * Section 1 - PRODUCT AND COMPANY INFORMATION * * *

Product Name: SRP 1200, SRP 2000
Trade Name: Modified Asphalt
Chemical Name/Synonym: N/A
Chemical Family: N/A
Manufacturer: SR Products
Address: 1380 E. Highland Road, Macedonia, Ohio 44056
Non-Emergency Information: SR Products, 330-998-6500
24-Hour Emergency Phone (Chemtrec): 800-424-9300

* * * Section 2 - Hazards Identification * * *

Emergency Overview:

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 SDS 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 2500F), burning, cutting, sanding and/or grinding when there is a potential for exposure to these components.

GHS-US Classification

H303 – May be harmful if swallowed
H315 – Causes skin irritation
H320 – Causes eye irritation
H335/336 – May cause respiratory irritation

GHS-US Labeling

Health Hazard

Potential Health Effects

Inhalation:
Inhalation of vapors, fumes or mists of the products in abnormal or emergency circumstances may be irritating to the respiratory system. See Section 8 for exposure controls.

Skin Contact:
Contact with hot product may cause thermal burns. Prolonged or repeated contact may cause dryness and irritation of the skin. Long-term skin exposure to asphalt can increase sensitivity to the sun, and may cause discoloration.

Eye Contact:
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.

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

Medical Conditions Aggravated by Exposure:
Chronic respiratory or skin conditions may temporarily worsen from exposure to emissions from these products in abnormal or emergency conditions.

* * * Section 3 - Composition / Information on Ingredients * * *

CAS Number	Component	Percent by Weight
64742-93-4	Oxidized Asphalt	55-89
N/A	SEBS Polymers	1-15
8052-42-4	Asphalt Flux	30-99

*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.

Note: See Section 8 of SDS for exposure limit data for these ingredients.
Appearance and Odor: Brown/Black viscous liquid (when heated), with an asphalt odor which may be released upon heating or burning of product.

Hydrogen sulfide (H2S), an extremely toxic gas, may be emitted from heated asphalt and may accumulate in storage tanks and other confined spaces. At low concentrations, H2S is irritating to the eyes, nose and throat, and at high concentrations (>500ppm) can cause rapid unconsciousness and death. The odor of H2S cannot be used as an indicator of exposure, because the gas causes rapid olfactory fatigue, which deadens the sense of smell. Use this product only under well-ventilated working conditions.

* * * Section 4 – First Aid Measures * *

Inhalation:
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.

Skin Contact:
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.

Eye Contact:
Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.

Ingestion:
DO NOT induce vomiting. Prevent aspiration of material into lungs. Seek immediate medical attention.

Chronic Effects in Abnormal or Emergency Circumstances:
Occupational exposures to asphalt, oxidized asphalt, silica and formaldehyde, which may occur form these products during abnormal conditions of use or emergencies, have been found to be probable or known human carcinogens, and may cause serious irreversible lung disease and other non-cancerous effects. See Section 11 of this SDS.

Notes to Physician:
This material, if aspirated into the lungs, may cause chemical pneumonitis; treat the affected person appropriately.

* * * Section 5 – Fire Fighting Procedures * * *

Flash Point: min 500°F
Flash Point Method: C.O.C.
Upper Flammability Limit: Not determined
Lower Flammability Limit: Not determined
Rate of Burning: Not available
Flammability Classification: Not determined
Auto Ignition Temperature: >6500F (3430C)

Extinguishing Media:
Use dry chemical, foam and carbon dioxide. Use water to cool fire-exposed containers and to protect personnel.

Unusual Fire & Explosion Hazards:
Treat as hydrocarbon type fire. Hot asphalt may ignite flammable materials on contact. DO NOT direct water into a container or directly onto hot asphalt, a vessel or a storage tank containing asphalt as it may cause violent eruptions and spreading of hot asphalt.

Fire-Fighting Instructions:
Use self-contained breathing apparatus (SCBA) and full bunker turnout gear in a sustained fire. Wear protective clothing ensemble as defined in NFPA 1500 (1997, or as updated).

Unusual Fire or Explosion Hazards
Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to a source of ignition and flash back. Vapors are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Liquid is lighter than water. May be transported hot.

Hazardous Combustion Products:
Primary combustion products are carbon monoxide, carbon dioxide and water. Combustion products may include sulfur oxides and hydrogen sulfide. Other undetermined compounds could be released in small quantities.

* * * Section 6 - Accidental Release Measures * * *

Containment Procedures and Clean-Up Procedures

Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other noncombustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material. For large spills, dike far ahead of liquid spill for later disposal. Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Wastes are not hazardous as defined by the Resource Conservation and recovery Act (RCRA; 40CFR261). Comply with state and local regulations for disposal of these products. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

* * * Section 7 – Handling and Storage * * *

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.

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.

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.

Storage Procedures:
Store away from heat and all ignition sources and open flames in accordance with applicable laws and regulations.

* * * Section 8 - Exposure Controls / Personal Protection * * *

Exposure Guidelines:
A: General Product Information
Follow all applicable exposure limits.

B: Component Exposure Limits
ACGIH, OSHA and NIOSH exposure limit lists have been checked for those components with
CAS registry numbers listed in Section 2 of this MSDS
Petroleum asphalt (8052-42-4)
ACGIH: 0.5 mg/m3 TLV-TWA, benzene-extractable, inhalable particulate (or equivalent method)
OSHA: Total dust: 15mg/m3 PEL-TWA; respirable fraction: 5 mg/m3 PEL-TWA (related to particulates not otherwise regulated, PNOR)
NIOSH: 5mg/m3 Recommended Exposure Limit (REL), measured as a 15 minute ceiling (fumes)
Asphalt, oxidized (64742-93-4)
ACGIH: 0.5 mg/m3 TLV-TWA; (Fume)
OSHA: Total dust: 15mg/m3 PEL-TWA; respirable fraction: 5 mg/m3 PEL-TWA (related to particulates not otherwise regulated, PNOR)
NIOSH: 5 mg/m3 REL, measured as a 15 minute ceiling (fumes)

Ventilation:
Provide sufficient local and/or general exhaust ventilation to maintain exposure levels below the PELs or TLVs in abnormal or emergency circumstances.

PERSONAL PROTECTIVE EQUIPMENT
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.

Skin Protection:
A loose fitting, long sleeved cotton shirt and long cotton pants are recommended. Heat insulated, leather or lined neoprene coated gloves should be worn when working with hot asphalt materials.

Eyes/Face Protective Equipment:
Wear safety glasses or goggles. Also wear a face shield where splash hazard exists.

Work Practices:
Handle with good industrial hygiene and safety practices. These include avoiding any unnecessary exposure and removal of the material from the skin, eyes and clothing. Wash hands and arms frequently, shower after exposure and wash work clothes when soiled.

In case of exposure to or contact with hot asphalt, see Section 4.

These products may be applied, repaired or maintained using hot liquid asphalt and these operations may result in worker exposures to asphalt fumes or emissions via inhalation or dermal absorption. Although there is no evidence that the fumes and emissions that occur in these operations emanate from these products, roofing contractors and workers using hot liquid asphalt in the application, repair or maintenance of these products should adhere to the equipment and work practice recommendations published by NIOSH. See DHHS (NIOSH) Publication No. 2003-107, entitled "Reducing Roofers' Exposure to Asphalt Fumes". The publication is available on NIOSH's website at: http://www.cdc.gov/niosh/docs/2003-107/pdfs/2003-107.pdf.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance: Brown/Black viscous liquid
Physical State: Solid
Vapor Pressure: <1
Boiling Point: NA
Specific Gravity (Water=1): 1.03-1.06
Viscosity: Solid at room Temperature
Melting Point: 185-225°F

Odor: Petroleum
pH: Not applicable
Vapor Density (Air=1): Not applicable
Solubility (H2O): Nil
Freezing Point: Not determined
Percent Volatile: 0%

* * * Section 10 - Stability & Reactivity Information * * *

STABILITY:
This is a stable material.

Conditions to avoid:
Do not allow hot, molten asphalt to contact water as this may cause violent eruptions and spreading of hot asphalt.

Incompatible Materials:
These products may react with strong oxidizing agents and water.

Hazardous Decomposition Products:
Primary combustion products are carbon monoxide, carbon dioxide and water. Combustion products may include sulfur oxides and hydrogen sulfide.

Hazardous Polymerization:
Will not occur.

* * * Section 11 – Toxicological Information * * *

Acute & Chronic Toxicity:

A: General Product Information
Contact with hot product may cause thermal burns. Long-term skin exposure to asphalt can increase sensitivity to the sun and cause discoloration. If ingested, may cause mouth, throat and gastrointestinal tract irritation and upset with possible nausea, vomiting and diarrhea. Small amounts of these products, if aspirated into the lungs, may cause mild to severe injury. See Section 8 for exposure controls.

B: Component Analysis – LD50/LC50

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Asphalt	5000 mg/kg Rat	2000 mg/kg Rabbit	

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.

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)

* * * Section 12 – Ecological Information * * *

Ecotoxicity:

No data available for these products. These products are not expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

* * * Section 13 – Disposal Considerations * * *

US EPA Waste Number & Descriptions: A: General Product Information

Material, if discarded, is not a characteristic hazardous waste under RCRA.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for the components of these products.

Disposal Instructions:

Dispose of waste material according to Local, State, Federal and Provincial Environmental Regulations.

* * * Section 14 – Transportation Information * * *

US DOT Information (Cold product)

Shipping Name: Not regulated as hazardous material for transportation.

TDG Information

Shipping Name: Not regulated as hazardous material for transportation.

Additional Transportation Regulations:

No additional information available.

* * * Section 15 – Regulatory Information * * *

US Federal Regulations:

A: General Product Information

OSHA status: These products are considered articles not subject to 29CFR 1910.1200 (OSHA Hazard Communication Standard).

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.

B: Component Analysis

These materials contain trace amounts of formaldehyde and polycyclic aromatic compounds (PACs) listed under SARA 313.

SARA 311/312
Acute Health Hazard: Yes
Chronic Health Hazard: Yes
Fire Hazard: Yes
Sudden Release of Pressure Hazard: No
Reactive Hazard: No

SECTION 313 REPORTABLE INGREDIENTS:

Polycyclic Aromatic Compounds (N590) – 100ppm
Benzo(g,h,i)perylene (191-24-2) – 10ppm

State Regulations:

A: General Product Information

No additional information available.

B: Component Analysis – State

The following components listed in Section 2 of this MSDS appear on one or more state hazardous substance lists:

Component	CAS number
Petroleum asphalt	8052-42-4

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

The following statement is provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):
WARNING! These products contain chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

Other Regulations:

A: General Product Information

All components identified in Section 2 of this MSDS are either listed on the US EPA TSCA Inventory, or are exempt from listing.

All components identified in Section 2 of this MSDS are either listed on the Canadian DSL, or are exempt from listing.

B: Component Analysis – Inventory

Component	CAS Number	TSCA	DSL	EINECS
Petroleum asphalt	8052-42-4	Yes	Yes	Yes

C: Component Analysis – WHMIS

WHMIS Status: Not Controlled
WHMIS Classification: None

* * * Section 16 - OTHER INFORMATION * * *

HMIS and NFPA Hazard Ratings:	Category	HMIS	NFPA
	Health	1	1
	Flammability	1	1
	Reactivity	0	0

NFPA Unusual Hazards: No water

HMIS personal Protection: To be supplied by user depending upon use.

Key/Legend:

EPA = Environmental Protection Agency; **TSCA =** Toxic Substance Control Act; **ACGIH =** American Conference of Governmental Industrial Hygienists; **IARC =** International Agency for Research on Cancer; **NIOSH =** National Institute for Occupational Safety and Health; **NTP =** National Toxicology Program; **OSHA =** Occupational Safety and Health Administration; **NFPA =** National Fire Protection Association; **HMIS =** Hazardous Material Identification System; **CERCLA =** Comprehensive Environmental Response, Compensation and Liability Act; **SARA =** Superfund Amendments and Reauthorization Act; **DSL =** Canadian Domestic Substance List; **EINECS =** European Inventory of New and Existing Chemical Substances; **WHMIS =** Workplace Hazardous Materials Information System; **CAA =** Clean Air Act

Revision Summary:

This is a revised SDS, which replaces (revision 04/2010) with up-dated contact and regulatory and product information. Read this information carefully.