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  
U.S. PLY, INC. dba ALL WEATHER ROOFING PRODUCTS  
2000 East Richmond Ave  
Fort Worth, TX 76104

Trade Name: ALL WEATHER SBS 190 GRANULATED, ALL WEATHER SBS GLASS CAP

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 US Ply 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 IDENTIFICATION 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).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Common Name and synonyms</th>
<th>CAS #</th>
<th>Percent Weight</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt</td>
<td>Asphalt</td>
<td>8052-42-4</td>
<td>30-55</td>
<td>~</td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>Limestone</td>
<td>1317-65-3</td>
<td>25-50</td>
<td></td>
</tr>
<tr>
<td>Styrene Butadiene Polymer</td>
<td>Styrene Butadiene Polymer</td>
<td>9003-55-8</td>
<td>5-20</td>
<td>~</td>
</tr>
<tr>
<td>Crystalline Silica</td>
<td>Rose quartz/sand</td>
<td>14808-60-7</td>
<td>0.1-1</td>
<td></td>
</tr>
<tr>
<td>Granules</td>
<td>Roofing Granules</td>
<td>n/a</td>
<td>0-40</td>
<td></td>
</tr>
<tr>
<td>Coal Slag</td>
<td>Coal Slag</td>
<td>n/a</td>
<td>0-40</td>
<td>~</td>
</tr>
<tr>
<td>Polyester fiber</td>
<td>Polyester fiber</td>
<td>n/a</td>
<td>0-10</td>
<td>~</td>
</tr>
<tr>
<td>Fiberglass Mat or Filament glass fiber</td>
<td>Fiberglass Mat or Filament glass fiber</td>
<td>65997-17-3</td>
<td>0-10</td>
<td>~</td>
</tr>
<tr>
<td>Gilsonite Resin</td>
<td>Uintahite</td>
<td>12002-43-6</td>
<td>0-5</td>
<td>~</td>
</tr>
<tr>
<td>Talc (containing no asbestos fibers)</td>
<td>Talcum</td>
<td>14807-96-6</td>
<td>0-1</td>
<td></td>
</tr>
</tbody>
</table>

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.

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 is used as a bottom surfacing.

All Weather 190 brand products use polyester fiber and may also contain a filament glass fiber. All Weather SBS Glass Cap uses a fiberglass mat and does not use a polyester or filament glass fiber.

Talc is used as a top surfacing on selvage edges.

#### 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**
# 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.

# 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.

<table>
<thead>
<tr>
<th>Components</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt (CAS 8-52-42-4)</td>
<td>TWA: 0.5 mg/m³ benzene soluble aerosol, inhalable fraction</td>
<td>-</td>
<td>Ceiling: 5 mg/m³ fume 15 min</td>
</tr>
</tbody>
</table>
| Calcium Carbonate (CAS 1317-65-3) | - | TWA: 15 mg/m³ total dust  
TWA: 5 mg/m³ respirable fraction (vacated) TWA: 15 mg/m³ total dust  
TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ respirable fraction | TWA: 10 mg/m³ total dust  
TWA: 5 mg/m³ respirable dust |
| Crystalline silica (quartz) (CAS 14808-60-7) | TWA: 0.025 mg/m³ respirable fraction | (vacated) TWA: 0.1 mg/m³ respirable dust  
(30) (%SiO₂ + 2) mg/m³ TWA total dust  
(250) (%SiO₂ + 5) mppcf TWA respirable fraction  
(10) (%SiO₂ + 2) mg/m³ TWA respirable fraction | IDLH: 50 mg/m³ respirable dust  
TWA: 0.05 mg/m³ respirable dust |
| Continuous filament glass fibers (CAS 65997-17-3) | 1 fiber/cm³ TWA – respirable fibers | - | 5 mg/m³ - TWA (inhalable fraction) |
| 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
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.

<table>
<thead>
<tr>
<th>Component</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt (at Ambient Temperature) (CAS 8052-42-4)</td>
<td>&gt; 5000 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Crystalline Silica (quartz) (CAS 14808-60-7)</td>
<td>&gt; 500 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

* 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.

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

### IARC Monographs, Overall Evaluation of Carcinogenicity

<table>
<thead>
<tr>
<th>Component Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA (29 CFR 1910.1001-1050)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt (at Ambient Temperature) (CAS 8052-42-4)</td>
<td>-</td>
<td>2B</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Quartz (CAS 14808-60-7)</td>
<td>A2</td>
<td>1</td>
<td>Known</td>
<td>X</td>
</tr>
<tr>
<td>Continuous filament glass fibers (CAS 65997-17-3)</td>
<td>A4</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Talc (CAS 14807-96-6)</td>
<td>A4</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Legend**

- ACGIH (American Conference of Governmental Industrial Hygienists)
- IARC (International Agency for Research on Cancer)
- A1 Known Human Carcinogen
- A2 Suspected Human Carcinogen
- A3 Animal Carcinogen
- A4 Not Classified as a Human Carcinogen
- NTP (National Toxicology Program)
- OSHA (Occupational Safety and Health Administration of the US Department of Labor)
- Known Known Carcinogen
- Reasonably Anticipated Reasonably Anticipated to be a Human Carcinogen
- X Present

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.

* 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.oeeha.org/prop65/CRNR_notices/safe_use/silicasud2.html](http://www.oeeha.org/prop65/CRNR_notices/safe_use/silicasud2.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."

* 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.

- Single exposure: n/a
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:
None of the components contain 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).

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:

<table>
<thead>
<tr>
<th>Component</th>
<th>CA</th>
<th>FL</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt (CAS 8052-42-4)</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Calcium Carbonate (Limestone) (CAS 1317-65-3)</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Quartz (CAS 14808-60-7)</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Continuous filament glass fibers (CAS 65997-17-3)</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Talc (CAS 14807-96-6)</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>NFPAl</th>
<th>Health Hazards 1</th>
<th>Flammability 1</th>
<th>Instability 0</th>
<th>Physical and Chemical Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMISl</td>
<td>Health Hazards 1</td>
<td>Flammability 1</td>
<td>Physical Hazards 0</td>
<td>Personal Protection -</td>
</tr>
</tbody>
</table>

*Chronic Hazard Star Legend*

- = Chronic Health Hazard

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Last Revision Date: 1/4/2013  MSDS Format
Original Issue Date: 10/31/2005  MSDS Format

Prepared by:
U.S. PLY, INC. Technical Services Department
P.O. Box 11740
Fort Worth, TX USA 76110

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End of Safety Data Sheet