Material Safety Data Sheet
Copper Laminated Flashings

Section 1: General Information

Manufacturer’s Name: Advanced Building Products
Address: 95 Cyro Drive, P.O. Box 98 Springvale, ME 04083
Telephone: 207-490-2306
Fax: 204-490-2998
CDA Designation: C10100, C10200, C10300, C10400, C10920, C11000, C11400,
C11500, C11600, C14420, C1500.

Section 2: Hazardous Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Registry No.</th>
<th>Percent by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
<td>99.8 Min.</td>
</tr>
</tbody>
</table>

Section 3: Physical Data

Melting Point        1976°-1981° F
Specific Gravity    8.89-8.94
Solubility in Water Negligible

Section 4: Fire and Explosion Data

Flash Point (Method Used): Not applicable
Extinguishing Media: Dry Sand or Metal Extinguishing Powders
Special Fire Fighting Procedures: Use NIOSH/MSHA approved self-contained
breathing apparatus and full protective clothing if involved in fire.
**Unusual Fire & Explosion Hazards:** Do not use water on molten metals. Grinding or other machining operations can produce fine particulate dust, which may explode in the presence of a strong ignition source.

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**Section 5: Health Hazard Data**

*Threshold Limit Value:* Copper: Fume-0.1 mg/m³; Dust & Mist-0.1 mg/m³.

*Effects of Overdose:* Mechanical irritation of skin and eyes. Irritation to stomach lining and intestines. Dry burning throat, headache, muscle aches, cough, chest tightness and pain, nausea, chills, fever, metallic taste.

*Emergency and First Aid Procedures:*
  - **Skin:** Flush thoroughly with water.
  - **Eyes:** Flush with water, call physician.
  - **Ingestion:** Induce vomiting in conscious person, call physician.
  - **Inhalation:** Remove victim to fresh air, call physician.

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**Section 6: Reactivity Data**

*Incompatibility (material to avoid):* Hydrogen Peroxide, Acetylene, Chlorine, Halogenates of Barium, Calcium, Magnesium, potassium, Sodium and Zinc.

*Hazardous Decomposition Products:* At temperatures above the melting point metallic oxide fumes may be evolved.

*Hazardous Polymerization:* Will not occur.

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**Section 7: Spill of Leak Procedures**

*Steps to be taken in Case Material is Released or Spilled:* A clean-up procedure, which minimizes exposure, is required. Vacuuming is preferred. Place material in closed containers. Do not use compressed air for cleaning. Use approved respiratory protection if possibility of dust, mist and/or fume exposure exists.

*Waste Disposal Method:* Copper-containing waste is normally collected to recover copper value. Should waste disposal be deemed necessary follow federal, State and Local regulations.

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**Section 8: Special Protective Information**

*Respiratory Protection:* NIOSHA/MSHA approved respirator for toxic dust, fume and/or mist.
Ventilation: Exhaust dust, mist and/or fume at source if threshold limit values are exceeded.
Eye Protection: Safety glasses or face shield.

Section 9: Special Precautions

Precautions To Be Taken in Handling and Storing: Avoid inhalation and ingestion of dust, fume and/or mist. Practice good housekeeping and personal hygiene procedures.

Section 1: General Information

Manufacturer’s Name: Advanced Building Products
Address: 95 Cyro Drive, P.O. Box 98 Springvale, ME 04083
Telephone: 207-490-2306
Fax: 204-490-2998

Date of revision: 12/11/96
Product Number: 0510801

Trade Name: AC-945 Asphalt Coating
Chemical Family: Asphalt

Section 1A: Regulatory Affairs Information

► The ingredients in this product are listed in the TSCA inventory as required by law.
► Ingredients present at a level that may be subject to reporting requirements of Sara title III section 313. Ingredients-None
► Ingredients present at a level, which could require reporting of release under cercla. Ingredients-None
► Ingredients present at a level that is subject to emergency planning requirements of threshold planning quantities (TPQ’s) and release reporting based on reportable quantities (RQ’s) in 40CFR355 (Used for Sara Title III Sections 302, 304, 311 and 312). Ingredients-None
► Ingredients listed in California Proposition 65 as causing cancer, birth defects or other reproductive harm. Ingredients-None
► Ingredients listed in Pennsylvania on the hazardous substance list. Ingredients-Asphalt, CAS Number: 8052-42-4
Section 2: Ingredients

Asphalt
Cas #: 8052-42-4  %: 50-90  TWA: 5 mg/m3  *  Stel: N/E
Petrolatum
Cas #: 8009-03-8  %: 10-50  TWA: N/E  Stel: N/E
* Hot asphalt fumes may contain trace amounts of hydrogen sulfide, which has a 10 PPM TWA and a 20 PPM Stel.

Sara Title III Hazard Categories:
Health: Acute (Immediate) – Yes
Health: Chronic (Delayed) – Yes
Sudden Release of Pressure – No
Fire – No
Reactive – No
Not listed by IARC, NTP, OR OSHA

Section 3: Physical Data

Boiling Point: >600°F
Vapor Pressure: N/A
Vapor Density: Heavier than air.
Specific Gravity: 1.5 to 1.6
Percent Volatile: Nil
Evaporation Rate: N/A
Solubility in water: Negligible
Appearance and odor: Black solid; asphaltic odor

Section 4: Fire and Explosion Hazard Data

Flash Point: >550° F (C.O.C.)
Extinguishing Media: CO2, Dry Chemical
Special Fire Fighting Procedures: Fire Fighters should wear self-contained breathing apparatus.
Unusual Fire and Explosion Hazards: At temperatures above the flash point, flammable and explosive vapors may evolve.

Section 5: Health Hazard Data

Primary routes of entry: Eye and skin contact, inhalation

Effect of Overexposure:
Eyes: Fumes from hot material may cause irritation. Contact with hot material causes thermal burns.

Skin: Contact with hot material causes thermal burns. Prolonged or repeated contact with cool material may cause irritation.

Inhalation: Vapors may cause irritation to respiratory tract.

Chronic Effects of Overexposure: Hydrogen Sulfide (H2S), an irritant gas at 5PPM and above, is released by hot material in varying amounts. H2S causes systematic toxicity and rapid death due to respiratory paralysis from exposures exceeding 500 PPM.

Medical conditions aggravated by exposure: Anemia. Impaired Pulmonary Function, Red Blood Cell abnormalities (all from H2S exposure).

First Aid:

Eyes: Flush with clear water for 15 minutes. Get medical attention.

Skin: Wash area contacted by cold material with soap and water. If contact is with hot material submerge in cold water or ice. Do not try to remove asphalt. Cover with cold water or ice until advised by a physician. Get medical attention immediately.

Inhalation: If overcome, remove victim to fresh air. If breathing stops, begin artificial respiration. Get medical attention.

Section 6: Reactivity Data

Stability: Stable
Conditions to avoid: Water, near equipment and molten asphalt, will evolve steam, resulting in frothing and/or spattering; oxidizing materials.
Incompatibility: Strong Acid, Alkalis, Oxidizers, water.
Hazardous Decomposition Products: CO and/or CO2
Hazardous Polymerization: Will not occur

Section 7: Spill and Leak Procedures

Steps to be taken if material is released or spilled: Remove all sources of ignition. Allow material to cool and collect with a suitable tool (heated if necessary) for proper disposal.
Waste disposal methods: Dispose in accordance with applicable local, state, and federal environmental regulations.

Section 8: Special Protection Information

Respiratory Protection: Organic vapor mask if TLV is exceeded or used in confined area.
Ventilation:
  Local: adequate to keep exposure below TLV
  Mechanical: Acceptable

Protective Gloves: Heat-Resistant Gloves

Eye Protection: Safety glasses or goggles with side shields.

Other Protective Equipment: Face shield (for splashing)

Section 9: Special Precautions

Avoid splashing and excessive heating. Do not take internally. For industrial use only. Keep out of reach of children.

Material Safety Data Sheet
Effective Date: January 4, 1995

WHMIS Classification: D-2A

Product Name: MICA

Section I: Material Identification

Manufacturer’s Name: Advanced Building Products
Address: 95 Cyro Drive, P.O. Box 98 Springvale, ME 04083
Telephone: 207-490-2306
Fax: 204-490-2998

Chemical Name: Phlogopite Mica
Trade Name: Suzorite Mica
Chemical Family: Silicate
Formula: K2 (Mg, Fe)6 Al2 Si6 O20 (OH,F)4

Section 2: Hazardous Ingredients/Identity Information

Components
Suzorite Mica (type-Phlogopite) is an inorganic mineral. It is an abundant silicate comprising many inorganic elements. It may contain trace amounts of crystalline silica (Quartz). Levels may vary between 0.1% to 1%.

OSHA PEL:
  For Mica: (<1% crystalline silica) 20 mppcf (3mg/cu.meter)

ACGIH TLV:
  For Mica: Total Dust 6mg/cu.meter, Respirable Dust 3 mg/cu.meter

The exposure limits of Mica are shown in Table Z-3-Mineral Dust, published by OSHA (29 CFR 1910.1000).
Mica:
Cas Registry No. 12001-26-2
OSHA: 29 CFR 1910.1000 Table Z-3
F.D.A.: 21 CFR 175 and 177
NIOSH: =VV867 0000

Crystalline Silica (Quartz) SiO2:
CAS Registry No. 14808-60-7

Section 3: Physical Data

Decomposition Point: Approx. 1100°C (2012°F)  Specific Gravity (water=1): 2.9
Vapor Pressure mm Hg: N/A  Vapor Density: N/A
Solubility In Water: Insoluble  % Volatile by Volume: Non-Volatile
Evaporation Rate (Butyl Acetate=1): N/A  Molecular Weight: 417
Appearance and Odor: Amber Tin Fakes-odorless

Section 4: Fire and Explosion Data

Flash Point: none  Flammable Limit: None
Special Fire Fighting Procedure: Mica is not flammable or an explosive hazard. No special fire fighting procedures or equipment is required.

Section 5: Health Hazard Data

Occupational Exposure Limit: ACGIH TLV Air 20 mppcf  DTLVS 4287.8
TWA 20 mppcf  (SCF-S) FEREAC 39.23540.74 THR No tox. Data Bul No.250(1940)
Routes of Entry: Inhalation of dust
Potential Health Effects (Acute & Chronic): Long-term exposure to respirable airborne concentrations above the TLV may lead to pneumoconiosis in which usually some functional lung impairment may occur. The symptoms most frequently reported were chronic cough and dyspnea.
Source: Pub. Health Bulletin No. 250 (1940)
OSHA 29 CFR 1910.1000 Table Z-3
Carcinogenicity: OSHA, NTP or IARC does not list Mica itself as a carcinogen. However, IARC concludes that there is limited evidence of the carcinogenicity of crystalline silica to human. Nevertheless, there have been no reports of lung damage, which could be contributed to mica. Controlled average exposures over a working day to 3mg/m³ of respirable dust or less should be adequate to protect employee health. Brief or occasional exposure should not cause special concern any more than to any other relatively inert dust.
Section 6: Reactivity Data

Chemical Stability: Stable  
Conditions to Avoid: None  
Materials to Avoid: Strong acids and alkalis.  
Hazardous Decomposition Products: None below 1100° C (2012° F), above that temperature minor quantity of fluorides may evolve.

Section 7: First Aid Measures

Emergency and First Aid Procedures: No special procedures are required. Some eye, mucous membrane and skin sensitivity may occur with allergic individual. First aid consists of washing away dust. In case of discomfort by dust, move to a ventilated area and consult a Physician.

Section 8: Preventative Measures

Mica is classified as “Non hazardous waste” under RCRA 3001. Mica is classified as “Non toxic pollutant” under Clean Water Act Section 307 & 311.  
Steps to be taken in case material is released or spilled: Mica waste is not reactive, flammable or biodegradable. Use conventional means; e.g. sweeping, vacuum, etc. Use caution on wet floors, as it may be slippery.  
Waste Disposal Method: Use normal solid waste disposal methods to comply with Federal and local laws.  
Reparatory Protection (Specify Type): NIOSH approved dust respirator should be used when level exceeds TLV.  
Ventilation: Normal air circulation, use adequate ventilation for low TLV.  
Local Exhaust: Collect excessive dust at point of generation.  
Protective Gloves: None Required  
Eye Protection: Not mandatory, but advisable for allergic person.  
Other Protective Equipment: None Required  
Precautions to be taken in handling and storage: None  
Other Precautions: None

Section 9: Additional Regulatory Concerns

Canadian WHIMS: D 2A  
California Proposition 65: Mica is not on the list. However, Mica may contain ppm quantities of materials regulated under California’s Safe Drinking Water and Toxic Enforcement Act of 1986.  
Sara Title III: Mica is not required to report.  
Section 302  NO  
Section 304  NO
Section 311 & 312  
Section 313  

Cercla: 40 CFR Part 302, Table 302.4
Mica is not on the list.

RCRA: Mica is not classified as a hazardous waste under Section 3001 or RCRA, and under regulation 40 CFR Part 261.4 (b) (7).

EPA-TCLP: 40 CFR Part 261-24, appendix II – Table 1.
No noticeable amount of Toxic substances leaches out.

Heavy Metal “Coneg Model” Legislation:
Total amount of heavy metals in our mica-Lead, Cadmium, Mercury and hexavalent Chromium is much lower then 100-ppm; a maximum limit required by Coneg Legislation.

TSCA Chemical Substances Inventory: As a naturally occurring substance, mica is automatically included in the inventory under regulation 40 CFR 710.4 sub section b.

Canadian Domestic Substances List: On the list

Ontario 309 & Quebec-Classes 1 Annex III: Mica and its reject comply the regulations.

Mica is an inert product. No hazardous compound leaches during normal processing.

Conformance of Mica to FDA regulations:
Please note that mica meets the FDA criteria covering the safe use of mica in articles intended for food contact use. Mica is listed in the Code of Federal Regulations; Title 21 “Food and Drugs” parts 175 to 178 under “Indirect Food Additives”:

175.105.5  Adhesives (Aluminum potassium silicate-mica)
175.300(b) (3) (xxvi)  Resinous and Polymeric Coatings (Aluminum and potassium silicate-mica)
177.1520 (b)  Olefin Polymers. The regulation says that food contact article may include substances that meet FDA prior approval.
177.2600. (C.4(v))  Rubber articles intended for repeated use. (Filler-mica)
178.3297  Colorants for Polymers

Section 10: Preparation Information

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data. The user must determine any use of this information and data. Our recommendations should not be taken as inducement to infringe any patent or violate any law, safety code, or insurance regulation. Advanced Building Products assumes no responsibility, obligation or liability therefore.

Explanation of Terms:
ACGIH  American Conference of Governmental Industrial Hygienists.
EPA  Environmental Protection Agency.
FDA  Food and Drug Administration
Material Safety Data Sheet

**Section 1: Material Identification**

Product Name: **Resin Coated Fiber Glass Fabrics**
Chemical Name: NA
CAS Number: NA
Chemical Family: NA
Hazardous Class: Health:0  Fire:1  Reactivity: 0  Fourth:
Additional Comments: Caution! Glass Fibers may be irritating to the skin.

**Section 2: Ingredients**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No</th>
<th>%</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fibrous Glass (dust)</td>
<td>65997-17-13</td>
<td>Negl.</td>
<td>15mg/cuM</td>
<td>10mg/cuM</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5mg/cuM - Respirable</td>
</tr>
</tbody>
</table>

Additional Comments: Amounts of dust will be dependent upon method of handling.

**Section 3: Health Hazard Data**

<table>
<thead>
<tr>
<th>Entry Route</th>
<th>Legend: A=Health Effect B=Personal Protection C=Emergency First Aid Procedures</th>
</tr>
</thead>
</table>

Inhale:  
A: Mechanical Irritation  
B: Not normally required. If required use NIOSH approved dust respirator.
C: Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention.

**Skin**
A: Mechanical Irritation
B: Impervious gloves such as neoprene or vinyl.
C: Wash with soap and water or use waterless hand cleaner. Do not use solvents or thinners to clean skin.

**Ingest**
A: Irritation
B: Do not ingest
C: If victim is conscious, give liquids. Call a physician. Do not induce vomiting unless directed to do so by a physician.

**Eyes**
A: Mechanical Irritation
B: Safety glasses/goggles
C: Flush with large amount of water while holding eyelids open. Get medical attention if irritation persists.

*Medical Conditions Aggravated by Exposure:* Dermatitis, however, sensitivity varies from individual to individual.
*Carcinogenicity:* N/A
*Additional Comments:* Other Protective Equipment: Wear a protective apron if repeated contact is likely. Shower and clean work clothes daily is recommended.

**Section 4: Fire and Explosion Data**

*Flash Point & Method:* \(>300^\circ\) F \(>149^\circ\) C
*Autoignition Temperature:* N/A
*Flammable Limits in Air:* N/A
*Extinguishing Media:* Dry Chemical, Water Fog, Foam, CO2
*Firefighting Procedures:* If entering a confined area, firefighters should wear a NIOSH approved self-contained breathing apparatus.
*Other Precautions:* The fiberglass will not burn. Numbers cited are for organic resin finish.

**Section 5: Reactivity Data**

*Stability/Conditions to Avoid:* Stable
*Incompatibility/Materials to Avoid:* Avoid contact with strong oxidizers.
*Hazardous Polymerization/Conditions to Avoid:* Will not occur
*Hazardous By Products of Decomposition:* Carbon monoxide, carbon dioxide, aldehydes, and other unidentified compounds may form upon combustion of the organic resin finish.
Section 6: Physical Chemical Data

Boiling Point: N/A  
Specific Gravity (water=1): 1.2-1.3  
Melting Point: >1100°C (glass)  
Softening Point: >700°C (glass)  
Evaporation Rate: ND  
Vapor Density (Air=1): N/A  
PH: N/A  
Solubility: Insoluble in water.  
Appearance and Odor: Woven Fabric, No discernible odor.  
Additional Comments: Volatile Organic Contents 0%.

Section 7: Safe Usage Information

Handling, Storage & Other Precautions: Store and use in a manner that will prevent airborne particulate in the workplace.  
Action to be taken in Case of Spill or Release (including disposal): Wastes should be disposed of according to federal, state & local regulations.

Section 8: Control Measures

Ventilation Requirements: Normal ventilation is usually adequate.  
Work Hygiene Practices: See Section 3.

Section 9: Overview

Resin coated fiberglass fabrics will not rot, not easily tear nor wear. It is lightweight and will conform to irregular surfaces. There is no chemical hazard from this material. Too much glass fiber dust in the air will be irritating to the respiratory tract and eyes, but this is not likely to happen with this material. Glass fiber particles are irritating to the skin. Wear gloves. Shower and clean work clothes daily is recommended.

IMPORTANT NOTICE: The information contained in this Material Safety Data Sheet has been prepared in accordance with the OSHA Hazard Communication Standard, CFR1910.1200. This information relates specifically to the product designated and may not be valid for the product when used in combination with any other materials or products or in a particular process. The information is, to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty, or guarantee is made as to its accuracy, reliability, or completeness. The user should review this information, satisfy itself as to its suitability and completeness, and pass on the information to its employees or customers in accordance with applicable federal, state or local hazard communications requirements. We do not accept responsibility for any loss or damage, which may occur from the use of this information.