SECTION 1 - PRODUCT IDENTIFICATION

Trade Names and Synonyms: MONOKOTE HPM FIRE STOP MORTAR

Cementitious Mixture

Product Use: Fire Stop Mortar

Blend of Portland Cement, Perlite, Agg., Cellulose & Chopped Glass Filament

Transportation Hazard Classification

PROPER SHIPPING NAME: Not Applicable
HAZARD CLASS: Non-hazardous
IDENTIFICATION #: Not applicable
LABEL(s) REQUIRED: Not applicable

Surface Freight Classification: Wall Plaster

NPCA-HMIS Hazard Index:
- Health: 1 *
- Flammability: 0
- Reactivity: 0
- Personal Protection: B, E (See Section 8)
SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>TOXICITY DATA LD₅₀, LC₅₀ etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Chemical Name, CAS# &amp; Common Name)</td>
<td>By Wt. (See Section 9 for Exposure Limits)</td>
</tr>
<tr>
<td>Portland Cement</td>
<td>60% Max No Data Available</td>
</tr>
<tr>
<td>Vinyl Acetate Polymer</td>
<td>40% Max LD₅₀ (Oral, Rat) &gt;5000 mg/kg</td>
</tr>
<tr>
<td>Chopped Continuous</td>
<td>~2% No data available</td>
</tr>
<tr>
<td>Glass Filament</td>
<td>CAS-65997-17-3</td>
</tr>
</tbody>
</table>

SECTION 3 - PHYSICAL DATA/CHEMICAL CHARACTERISTICS

- Boiling Point: Not applicable
- Specific Gravity (H₂O=1): Not applicable
- Vapor Pressure (mm Hg): Not applicable
- % Volatile: Not applicable
- Vapor Density (AIR=1): Not applicable
- Evaporation Rate: Not applicable (Butyl Acetate = 1)
- Solubility in Water: Slight
- pH: 11-13 for Portland Cement
- Bulk Density (#/cu.ft): 52-56 pct
- Appearance and Odor: Coarse, free flowing gray powder, no odor
- Odor Threshold: Not applicable

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

- Flash Point Method Used: Not applicable
- Flammable Limits: Not applicable
- N.F.P.A. Rating: Not applicable
- Extinguishing Med: Not applicable
- Special Fire Fighting Procedures: None
- Unusual Fire and Explosion Hazards: None known

Manufactured in Saudi Arabia by:
ARABIAN VERMICULITE INDUSTRIES

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Fax: (02) 653-0588
SECTION 5 - REACTIVITY DATA

Stable under normal conditions (yes or no): YES

Conditions or Materials to avoid (which may react or cause instability):
Prior to welding or cutting, Monokote must be removed from steel surfaces in those immediate areas where exposure to excessive heat applied directly or through conduction from cutting or welding operations is possible.

Hazardous Decomposition or Byproducts:
As a result of incomplete combustion, Monomers (C8H8) and various Polymers (C8H8) may be given off. Temperature in excess of 4000°F may generate sulfur dioxide (SO2). Upon complete combustion, Carbon Monoxide and Carbon Dioxide are released.

Hazardous Polymerization: Will not occur

Conditions to Avoid: Not applicable

SECTION 6 - HEALTH HAZARD DATA & TOXICOLOGICAL PROPERTIES

Routes of Exposure:
Inhalation:
Exposure to excessive airborne dust may cause irritation to the respiratory system resulting in coughing and sneezing, shortness of breath and wheezing. Exposure may also aggravate chronic respiratory conditions such as asthma or bronchitis.

Skin and Eye:
May cause acute and/or chronic irritation of eyes and skin. Exposure to skin may produce “Cement Dermatitis” which is usually due to the alkaline and abrasive properties of cement dust and which can involve whole surface areas of the body. Exposure to cement may cause an allergic sensitivity. Prolonged contact with skin may cause burns, especially if skin or product is wet. This may occur without warning since little heat is sensed.

EYE contact may result in inflammation or burns.

Direct contact with the force of the sprayed product stream during application may cause physical injury.

Ingestion:
If swallowed, may cause irritation or burns to the lining of the mouth, esophagus and stomach.

Carcinogenicity According to NTP, IARC and OSHA: Not applicable
SECTION 7 - EMERGENCY AND FIRST AID PROCEDURES

EYE: In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids apart. Contact a physician.

SKIN: In case of skin contact, flush immediately with plenty of water and dry thoroughly. After each work shift workers using products containing Portland Cement should shower with soap and water. Work clothing should be changed daily.

INGESTION: If swallowed, give large volumes of water or milk to drink and induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.

SECTION 8 - PREVENTIVE & CONTROL MEASURES

Warning Statement:
WARNING! IRRITANT.

..... Contains Portland Cement CAS# 65997-15-1, Vinyl Acetate Polymer CAS# 9003-20-7, Cellulose CAS# 65996-61-4, Chopped Continuous Glass Filament CAS# 65997-17-3 and Quartz CAS# 14808-60-7

..... Inhalation of Portland Cement Dust may cause coughing and sneezing and may result in temporary breathing difficulties. Exposure may aggravate chronic respiratory conditions such as asthma or bronchitis. Repeated inhalation may cause long term and/or delayed lung injury.

..... Cement is very irritating to eyes and skin, when wet or dry. Exposure may cause alkali burns resulting in damage to skin and eyes. Direct contact with the force of the sprayed product stream during application may cause physical injury.

..... Wet material falling on floors, stairs or other surfaces will cause these surfaces to become slippery.

Precautionary Measures:
..... Avoid creating and inhaling dust.
..... Equip mixers with dust covers.
..... Provide ventilation and respiratory protection.
..... Avoid contact with skin and eyes.
..... Wear skin and eye protection to avoid contact with dust or spray.
..... Post “Slippery When Wet” signs where appropriate.
..... Use Anti-slip surfaces on working platforms.

Respiratory Protection:
Wear NIOSH-approved dust mask (Type TC-21C-XXX) to prevent exposure above the limits specified in Section.

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**Ventilation:**
Local Exhaust: Exhaust fans may be necessary when mixing in enclosed areas.
Mechanical: Exhaust fans may be necessary when mixing in enclosed areas.
Special: Not applicable
Other: Not applicable

**Skin Protection:**
Work gloves, barrier creams and boots are recommended to prevent irritation of drying skin.

**Eye Protection:**
Proper eye protection is required. At a minimum, safety glasses with side shields should be worn where exposures to excessive dust or spray is likely.

**Other Protective Clothing or Equipment:** Normal work clothes.

**Work / Hygienic Practices:**
Use bag opening and disposal procedures which minimize the release of dust.
Equip mixers with dust covers to minimize dust released during mixing cycle.
After each work shift, workers using products containing Portland cement should shower with soap and water. Work clothing should be changed daily.

All trades should minimize the release of dust during the removal of fire protection materials by:
- Wetting fireproofing materials using water, prior to its removal.
- Removing small areas of fireproofing at one time.
- Maintaining a clean worksite.

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**SECTION 9 – HAZARDOUS INGREDIENTS EXPOSURE LIMITS**

**INGREDIENT:**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Dust as Total Dust</th>
<th>Dust as Respirable Dust</th>
<th>Respirable Dust*</th>
<th>Total Dust*</th>
</tr>
</thead>
<tbody>
<tr>
<td>PORTLAND CEMENT</td>
<td>10 mg/m³ – TWA</td>
<td>5 mg/m³ – TWA</td>
<td>5 mg/m³ – TWA</td>
<td>15 mg/m³ – TWATLV/TWA: 10 mg/m³</td>
</tr>
<tr>
<td>CAS# 65997-15-1</td>
<td></td>
<td>5 mg/m³ – TWA</td>
<td>5 mg/m³ – TWA</td>
<td>None established</td>
</tr>
</tbody>
</table>

**SECTION 9 – HAZARDOUS INGREDIENTS EXPOSURE LIMITS**

Observe precautions noted above. Sweep or shovel spilled material and place in suitable containers for recycle or disposal.

Waste of this product is not defined as hazardous according to the US EPA (40 CFR 261.3) Dispose of waste in accordance with all applicable regulations.
CONTROL MEASURES AND PERSONAL PROTECTIVE EQUIPMENT

VENTILATION: General (i.e. natural or mechanically induced fresh air movements that maintain dust concentrations below recommended exposure limits).

EYE PROTECTION: Safety glasses or goggles are recommended.

SKIN PROTECTION: Work gloves and/or barrier creams are recommended to prevent irritation or drying of skin.

RESPIRATORY PROTECTION: Wear a NIOSH-approved dust mask when exposure to dust is encountered.

PRECAUTIONS FOR SAFE HANDLING AND USE

HANDLING AND STORING PRECAUTIONS: Avoid generating dust. Store in a dry location preferably between 40 and 90°F. Follow label instructions for proper mixing.

SPILL PROCEDURES: Sweep up and place in suitable containers for recycle or disposal.

WASTE DISPOSAL METHODS:
Consult with regulatory agencies or corporate personnel for disposal methods that comply with local, state, and federal health and environmental regulations.

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