1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: M/M Synthetic Mica
Product Code: 22008
CAS Number: 12003-38-2

Manufacturer Information
Crystex Composites, LLC
Mykroy/Mycalex Ceramics
125 Clifton Boulevard
Clifton, NJ 07011
(973) 779-8866
http://crystexllc.com

Emergency Contact: Crystex Safety Officer
Email address: jsaenz@crystexllc.com
Information: Crystex Safety Officer

2. HAZARDS IDENTIFICATION

GHS Classification
Respiratory Sensitization, Category 1B

Placard
Health hazard

Key word
Danger

GHS hazard phrase
May cause allergy or asthma symptoms or breathing difficulties if inhaled

Hazard Phrases
Harmful if inhaled.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

GHS Precaution Phrases
Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray.
In case of inadequate ventilation, wear respiratory protection.

GHS Response Phrases
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms call a POISON CENTER or doctor/physician.

GHS Storage and Disposal Phrases
Dispose of contents/container to unregulated waste.

Target Organs
Cardiovascular system, eyes, gastrointestinal system, heart, lungs, respiratory system, muscles, skin.

Potential Health Effects (Acute and Chronic)
Mica is not listed as a carcinogen by OSHA, NTP, or IARC. However, IARC concludes that there is limited evidence of carcinogenicity of crystalline silica to humans. Excessive inhalation of dusts may cause lung injury with symptoms including shortness of breath and reduced pulmonary function. Persons with pre-existing respiratory disorders may be at an increased risk from exposure.

Inhalation
Inhalation of this material, particularly dust, may cause upper respiratory and mucous membrane irritation. Even though synthetic mica (fluorophlogopite) contains fluorine ions, these ions are unlikely to leach out of formulation due to the high heat used in manufacturing process.

Skin Contact
Even though fluorophlogopite particles are large and insoluble in water, it may cause drying of the skin.

Eye Contact
Contact may cause mechanical irritation with redness, tearing and pain.

Ingestion
If ingestion occurs, muscle spasm, slow pulse, extra systoles, hyperkalemia may occur.

Medical Conditions Generally Aggravated By Exposure
None.
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS NUMBER</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fluorphlogopite</td>
<td>12003-38-2</td>
<td>100%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Emergency and First Aid Procedures
If exposure occurs, move to fresh air. Call a physician.

In Case of Inhalation
If an adverse reaction is observed or irritation develops, remove the person from source of exposure to fresh air. If symptoms persist get medical attention.

In Case of Skin Contact
Wash the exposed skin with soap and water. If irritation or rash develops get medical attention.

In Case of Eye Contact
If dust enters eyes, flush immediately with clean water for 15 minutes and call a physician.

In Case of Ingestion
Clear material from mouth. If large amounts of material are swallowed seek medical attention. No harmful effects are expected from a small ingestion.

Signs and Symptoms Of Exposure
Signs and symptoms of exposure include upper respiratory irritation, gastrointestinal irritation, muscle spasm, extra systoles, bradycardia (slow pulse), hypokalemia (low potassium), and skin and eye irritation, burns.

5. FIRE FIGHTING MEASURES

Flash Point: NA  Auto ignition Point: NA
Explosive Limits: NA  LEL: NA  UEL: NA

Fire Fighting Instructions
Wear positive pressure, self-contained breathing apparatus for firefighting. Use structural firefighting clothing.

Flammable Properties and Hazards Suitable Extinguishing Media
This material is not flammable or combustible but rather becomes molten. Use any media appropriate for the surrounding fire, water fog, carbon dioxide, foam or dry chemical.

Unsuitable Extinguishing Media
NA

6. ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled
Wear appropriate protective clothing and equipment. Sweep or vacuum up, avoiding the creation of airborne dust, and collect in a suitable container for disposal. Dust collectors may be used as well.

Protective Precautions, Protective Equipment and Emergency Procedures
Use a NIOSH approved dust/mist respirator if dust is created.

7. HANDLING AND STORAGE

Precautions To Be Taken in Handling
Avoid generating and breathing dust. Avoid eye contact. Use with adequate ventilation. If clothing becomes contaminated, remove and launder before reuse. Wash thoroughly before eating and drinking.
Food, beverages and smoking materials should not be allowed in the work area.

Precautions To Be Taken in Storing
Store in a dry area away from food and feed products. Avoid dust formation.

Other Precautions
Mica is not listed as a carcinogen by OSHA, NTP, or IARC. However, IARC concludes that there is limited evidence of
carcinogenicity of crystalline silica to humans. Excessive inhalation of dusts may cause lung injury with symptoms including shortness of breath and reduced pulmonary function.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Hazardous Components (Chemical Name) | CAS NUMBER | OSHA PEL | ACGIH TLV
--- | --- | --- | ---
1. Fluorphlogopite | 12003-38-2 | 2.5 mg/m³ (as F) | 2.5 mg/m³ (as F)

Respiratory Equipment (Specify Type)

For operations where the exposure limit may be exceeded and dust is generated, a NIOSH approved high efficiency particulate respirator is recommended. Equipment selection depends on contaminates type and concentration. Select in accordance with 29CFR1910.134 and good industrial hygiene practice.

Eye Protection

Normal eye protection should be employed for plant operations. For dusty operations goggles may be required.

Protective Gloves

Wear leather or other appropriate work gloves, if necessary for type of operation. The use of coverall is recommended.

Engineering Controls (Ventilation etc.)

Keep area well ventilated.

Work/Hygienic/Maintenance Practices

Wash hands and face thoroughly after exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: [ ] Gas [ ] Liquid [X] Solid

Appearance and Odor: White, sparkling and odorless powder

Formula: \( \text{Mg}_3\text{K}[\text{AlF}_2\text{O(SiO}_3\text{)}_3] \)

Molecular Weight: 421.27

Melting Point: 1500°C

Evaporation Rate: NA

Boiling Point: NA

Solubility in Water: None

Specific Gravity (Water = 1): 2.6

Percent Volatile: NA

Density: NA

Saturated Vapor Concentration: NA

Vapor Pressure (vs. Air or mm Hg): NA

Viscosity: NA

Vapor Density (vs. Air = 1): NA

10. STABILITY AND REACTIVITY

Stability

Unstable [ ] Stable [X]

Conditions To Avoid - Instability

NA

Incompatibility - Materials To Avoid

NA

Hazardous Decomposition Or Byproducts

NA

Possibility of Hazardous Reactions:

Will occur [ ] Will not occur [X]

Conditions To Avoid - Hazardous Reactions:

NA
11. TOXICOLOGICAL INFORMATION

Toxicological Information
This product is pure synthetic mica (Fluorphlogopite), a mineral which is not acutely toxic by ingestion, inhalation or dermal contact.

Hazardous Components (Chemical Name) | CAS NUMBER | NTP | IARC | ACGIH | OSHA
--- | --- | --- | --- | --- | ---
1. Fluorphlogopite | 12003-38-2 | | | | |

Carcinogenicity:
- NTP? No
- IARC Monographs? No
- OSHA Regulated? No

12. ECOLOGICAL INFORMATION

Results of PBT and vPvB assessment (Persistent and Bioaccumulative/very Persistent and very Bioaccumulative Chemical)
- NA

Persistence and Degradability
- NA

Bioaccumulative Potential
- NA

Mobility in Soil
- NA

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method
Disposal of material should be done in compliance with all local, state, provincial and federal laws and regulations.
Dispose of contents/containers to unregulated waste.

14. TRANSPORT INFORMATION

Note: Not classified as dangerous in the meaning of transport regulations.

DOT: Not regulated. (US Department of Transportation)
IMDG: Not regulated. (International Maritime Dangerous Goods)
IATA: Not regulated. (International Air Transport Association)
ICAO: Not regulated. (International Civil Aviation Organization)

15. REGULATORY INFORMATION

SARA 302 Components
No subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
This material does not contain any chemical component with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
No SARA hazards.

US EPA TSCA Inventory
Not listed on the Toxic Substances Control Act Inventory.
Fluorphlogopite CAS Nº 12003-28-2

NJ Right To Know Components
No components are subject to the New Jersey Right To Know Act.
Fluorphlogopite CAS Nº 12003-28-2

16. OTHER INFORMATION

None.

This is the end of SDS for M/M Synthetic Mica