Safety Data Sheet
MM 60 EX

SECTION 1: Identification

1.1 Product identifier

Product name  MM 60 EX

1.3 Recommended use of the chemical and restrictions on use
Avoid dust generation of this product as the dust may contain crystalline silica, a known carcinogen.

1.4 Supplier's details

Name  Minerals Manufacturing Corp.
Address  50 Harbison Walker Road
          Eufaula, AL 36027
          USA

Telephone  334-687-3459

1.5 Emergency phone number(s)

CHEMTREC 1-800-424-9300

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS –US Not Classified

2.2 GHS label elements, including precautionary statements

Pictogram
None.

Not known.

No labeling requirement

2.3 Other hazards which do not result in classification
No additional information available

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. Mullite (Al6O5(SiO4)2)
Concentration 68-77 %
Other names / synonyms Calcined Kaolin, Mullite (Al6O5(SiO4)2)
CAS no. 1302-93-8

2. Silica, crystalline (airborne particles of respirable size)
Concentration < 0.3
Other names / synonyms Cristobalite
CAS no. 14464-46-1

3. Amorphous Silica
Concentration 21 - 31 %
Other names / synonyms (glass)
CAS no. 7631-86-9

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice Move out of dangerous area. Consult a physician. Show the safety data sheet to the doctor in attendance.

If inhaled Remove victim to fresh air. If not breathing perform artificial respiration. Get immediate medical attention if breathing does not return to normal.

In case of skin contact Wash affected area with mild soap and water. If allergic reaction causes a rash that does not heal within a few days consult a physician. Treat abrasions as any other scrape or cut with disinfectants and bandages.

In case of eye contact Flush eyes with water as a precaution. Get medical attention if irritation continues.

If swallowed Never give anything by mouth to an unconscious person. Rinse mouth with water. No known acute effects.

4.2 Most important symptoms/effects, acute and delayed
The most important known symptoms and effects are described in the labeling (see section 2 and/or in section 11. Excessive dust exposure may aggravate any existing respiratory disorders or diseases. Possible complications or allergies resulting in irritation to skin, eyes, and respiratory tract may occur from excessive exposure to dust.

4.3 Indication of immediate medical attention and special treatment needed, if necessary
Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media
Not applicable.
5.2 Specific hazards arising from the chemical
No data available. Brick as shipped do not pose a fire or explosion hazard.

5.3 Special protective actions for fire-fighters
None.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, organs. Ensure adequate ventilation. Avoid breathing dust.

6.2 Environmental precautions
Not applicable.

6.3 Methods and materials for containment and cleaning up
Not applicable.

Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Minimize dust generation and accumulation. Avoid breathing dust.

7.2 Conditions for safe storage, including any incompatibilities
Always stack and store product in a stable manner to avoid falling hazards.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Silica, crystalline cristobalite, respirable dust (CAS: 14464-46-1)
PEL (Inhalation): See Annotated Z-3 mg/m3 (OSHA)
OSHA: >= 5 mg/m3/(%SiO2 + 2) Resp

2. Silica, crystalline cristobalite, respirable dust (CAS: 14464-46-1)
PEL (Inhalation): See Annotated Z-3 (Cal/OSHA)
ACGIH TWA: 0.025 mg/m3

3. Silica, amorphous glass (CAS: 7631-86-9)
PEL (Inhalation): See Annotated Z-3 (Cal/OSHA)
OSHA 20 mppcf (80 mg/m3/%SiO2)

4. Silica, amorphous glass (CAS: 7631-86-9)
OSHA Remark: see Appendix C (mineral dusts)

5. Calcined Kaolin, Mullite (CAS: 1302-93-8)
PEL (Inhalation): See Annotated Z-3 ppm (OSHA)
OSHA: 15 mg/m3 (5 mg/m3 resp.)

6. Calcined Kaolin, Mullite (CAS: 1302-93-8)
PEL (Inhalation): See Annotated Z-3 mg/m3 (Cal/OSHA)
ACGIH: 2 mg/m3

7. Calcined Kaolin, Mullite (CAS: 1302-93-8)
ACGIH Remark: Pneumoconiosis

8.2 Appropriate engineering controls
Provide adequate ventilation to maintain exposures below the OSHA PEL and ACGIH TLV for quartz and other substances. Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
Face shield should be used when cutting/grinding product.

Skin protection
Use gloves and/or protective clothing if abrasions or allergic reactions are experienced.

Respiratory protection
Dust generation occurs during conveying, mixing, grinding and sizing operations. For airborne concentration exceeding the OSHA PEL or ACGIH TLV use a NIOSH and/or MSHA approved respirator.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance/form</td>
<td>Granular material, color varies</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>&gt;3000°F</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
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</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
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</tr>
<tr>
<td>Upper/lower flammability limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper/lower explosive limits</td>
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</tr>
<tr>
<td>Vapor pressure</td>
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</tr>
<tr>
<td>Vapor density</td>
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</tr>
<tr>
<td>Relative density</td>
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</tr>
<tr>
<td>Solubility(ies)</td>
<td>Not soluble in water</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
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</tr>
<tr>
<td>Auto-ignition temperature</td>
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</tr>
<tr>
<td>Decomposition temperature</td>
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</tr>
<tr>
<td>Viscosity</td>
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<tr>
<td>Explosive properties</td>
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</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

10.1 Reactivity
Product as shipped is not reactive

10.2 Chemical stability
Stable under normal conditions

10.3 Possibility of hazardous reactions
10.5 Incompatible materials
No data available

10.6 Hazardous decomposition products
No data available

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
SHORT TERM
Product as shipped does not present an inhalation, ingestion, or contact hazard. However, operations such as conveying, dry mixing, dry grinding, dry sizing may result in the following effects.

Skin corrosion/irritation
Dust or chips may cause allergies reactions in hypersensitive individuals; may cause cuts and skin abrasions.

Serious eye damage/Irritation
May cause irritation by abrasion with dust or chips.

Respiratory or skin sensitization
Dust or chips may cause congestion and irritation in the nasal and respiratory passages.

Carcinogenicity
The following carcinogenicity classifications for crystalline silica have been established by the following agencies:

- OSHA: not regulated as a carcinogen
- IARC: Group 1 carcinogen in humans
- NIOSH: Carcinogen, with no further categorization
- NTP: Know carcinogen

STOT-single exposure
Respiratory tract and lungs- irritation, congestion. Limited understanding of the mechanism of crystalline silica toxicity for lung carcinogenicity in the short term.

STOT-repeated exposure
Lungs- Prolonged inhalation of crystalline silica may result in silicosis, a disabling pulmonary fibrosis, a dry cough, shortness of breath, emphysema, decreased chest expansion, and increased susceptibility to tuberculosis. In advanced stages, loss of appetite, pleuritic pain, and total incapacity to work. Advanced silicosis may result in death due to cardiac failure or destruction of lung tissue. Crystalline silica is classified as group 1 "known to be carcinogenic to humans' by IARC and "sufficient evidence" of carcinogenicity by the NTP. - Based on human evidence.

Additional information
Toxicological properties of the formulation have not been investigated. The information in this section describes the potential hazards of crystalline silica. Product dust may contain crystalline silica, a chemical that has been determined by certain agencies to cause cancer and other chemicals that may cause harm. Inhalation of generated dust above established or recommended exposure levels should be avoided by use of a NIOSH or MSHA approved respirator.
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Toxicity
There are no known environmental impacts. No known ecological considerations when using product.

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

Results of PBT and vPvB assessment
No data available

Other adverse effects
No data available

SECTION 13: Disposal considerations

Waste treatment
Dispose of waste in accordance with all applicable laws and regulations. State and community specific provision must be considered. It is recommended that waste minimization is practiced.

SECTION 14: Transport information

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

SARA 302 Components
Product as shipped are not a Section 302 reportable product.

SARA 311/312 Hazards
Product as shipped according to Section 311/312 meets the requirements of the following category:
Chronic Health Hazard

SARA 313 Components
Product as shipped are not subject to Section 313, toxic chemical release inventory reporting requirements.

Pennsylvania Right To Know Components
Massachusetts Right to Know Components
New Jersey Right to Know Components

Version: 1.0, Date of issue: 2017-8-1, p. 6 of 7
Quartz CAS No. 14808-60-7

California Prop. 65 Components
WARNING! This product contains a chemical known to the State of California to cause cancer. Cas No. 14808-60-7

CANADIAN WHMIS
D2A, D2B

SECTION 16: Other information

16.1 Further information/disclaimer
Although reasonable care has been taken in the preparation of the SDS information contained herein, Minerals Manufacturing Corp. extends no warranties, makes no representation and assumes no responsibility as to the accuracy of suitability of such information for application to purchaser's intended purposes or for consequences of its use.