

MINERALS MANUFACTURING CORP.

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)

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Concentration	68-77 %
Other names / synonyms CAS no.	Calcined Kaolin, Mullite (Al ₆ O ₅ (SiO ₄) ₂) 1302-93-8

2. Silica, crystalline (airborne particles of respirable size)

Concentration	< 0.3
Other names / synonyms CAS no.	Cristobalite 14464-46-1

3. Amorphous Silica

Concentration	21 - 31 %
Other names / synonyms CAS no.	(glass) 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.

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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: $\geq 5 \text{ mg/m}^3 / (\% \text{SiO}_2 + 2)$ 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)

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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

Appearance/form	Granular material, color varies
Odor	Odorless
Odor threshold	No data available
pH	No data available
Melting point/freezing point	>3000°F
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability limits	No data available
Upper/lower explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	varies 2.4 g/cc to 2.9 g/cc
Solubility(ies)	Not soluble in water
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

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

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No data available

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.

SECTION 12: Ecological information

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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

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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.