



Making Dream Surfaces Attainable

Date of Preparation: April 2025

SAFETY DATA SHEET

MOSAIC (MIXED) TILE

1. PRODUCT IDENTIFICATION

Product Name: Mosaic, Mixed Tile products distributed by MS International, Inc. (MSI). (For purposes of this SDS, the term “Mosaic (Mixed) Tile” encompasses the predominant natural stone types in Mosaic (Mixed) Tile products manufactured/sourced by MSI, which are marble and granite.) These mosaics may incorporate glass, porcelain, and/or ceramic tiles as well.

Synonyms: Mosaic (Mixed)

Recommended Use: Flooring and Wall Application

Manufacturer Name: MS International, Inc.

Address: 2095 N. Batavia Street
Orange, CA 92865

Telephone: (714) 685-7500

This document has been prepared in accordance with the Occupational Safety and Health Administration (OSHA) Hazard Communication standard, 29 Code of Federal Regulations (CFR) 1910.1200(g), Safety Data Sheets.

2. HAZARDS IDENTIFICATION

Mosaic (Mixed) Tile products consist of naturally occurring minerals that have been mined. The finished Mosaic (Mixed) Tile products are odorless, stable, non-flammable, and pose no immediate hazard to health. Respiratory, hand and eye protection may be needed to prevent excess exposure to airborne particulates if dust is produced by cutting product during installation.

Classification of the Chemical (Crystalline Silica) in Accordance with Paragraph (d) of 1910.1200:

Emergency Overview: Danger! Lung Injury and Cancer Hazard

GHS Classification (Global Harmonized Standard Classification):

Carcinogenicity – Category 1A (H350)

Specific target organ toxicity, single exposure; Respiratory tract irritation – Category 3 (H335)

Specific target organ toxicity, repeated exposure – Category 1A (H372)

GHS Label, Hazards and Precautionary Statements

GHS Hazard Pictogram:



Category 3 (Respiratory tract irritation) (H335)



Category 1A (Carcinogenicity) (H372)

GHS Signal Word: Danger

GHS Hazard Statements:

May cause cancer (inhalation) (H350)

May cause respiratory irritation (H335)

Causes damage to organs (lung/respiratory) through prolonged or repeated exposure (inhalation) (H372)



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GHS Precautionary Statements:

- Obtain, read and follow all safety instructions before use. (P203)
- Do not breathe dust/spray. (P260 + P261)
- Wash skin thoroughly after handling. (P264)
- Do not eat, drink, or smoke when using this product. (P270)
- Use only outdoors or in a well-ventilated area (P271)
- Wear protective gloves, protective clothing, eye protection, face protection. (P280)

Unknown Acute Toxicity:
Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mosaic (mixed) tiles are mined and fabricated into various shapes, sizes, and colors.

Composition*	CAS#	Estimated % by Wt.
Crystalline Silica (Quartz)**	CAS: 14808-60-7	20 - > 35%
Feldspar	CAS: 68476-25-5	> 50%
Aluminum Oxide	CAS: 1344-28-1	2-4%
Iron Oxide	CAS: 1345-25-1	1-5%
Magnesium Oxide	CAS: 1309-48-4	< 2%
Biotite/Muscovite	CAS: 12001-26-2	< 20%
Limestone	CAS: 1317-65-3	38-42%
Magnesium Carbonate	CAS: 546-93-0	30-32%

*Composition ranges are due to the fact that mosaics are comprised of natural stone, glass, porcelain, and/or ceramic tiles.
 **Marble and granite are the predominant natural stone types in mosaic (mixed) tile. If the mosaic (mixed) tile incorporates marble, the tile can contain 20-25% crystalline silica; if it incorporates granite, the tile can contain 25 - > 35% crystalline silica.

4. FIRST AID MEASURES

Description of First Aid Measures:

- Eyes: Immediately flush eyes with large amounts of water for at least 15 minutes if dust gets in eyes. Get medical attention if irritation persists.
- Skin: Wash thoroughly after working with mosaic (mixed) tile products.
- Inhalation: Remove to fresh air if exposed to large amounts of dust. Administer artificial respiration if breathing has stopped. Keep individual at rest. Call for prompt medical attention.
- Ingestion: Not applicable for intact mosaic (mixed) tile products.

Most Important Symptoms/Effects, Acute and Delayed:

May cause respiratory irritation. May cause cancer. May cause damage to lungs through prolonged or repeated exposure.

Indication of Immediate Medical Attention and Special Treatment Needed:

If exposed or concerned, get medical advice and attention. Have emergency eyewash station available in area where products are cut.

5. FIRE-FIGHTING MEASURES AND INFORMATION

- Suitable Extinguishing Media: ABC fire extinguished
- Specific Hazards: Not applicable
- Special Fire Fighting Procedures: None required
- Fire and Explosion Hazards: None



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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures:

Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not handle until all safety precautions have been read and understood. Use personal protection recommended in Section 8 of this SDS.

Methods and Materials for Containment and Clean Up:

Avoid creating excessive dust. Clean up dust with a vacuum system with a high-efficiency particulate air (HEPA) filter vacuum or damp sweeping. See Section 8 of this SDS concerning PPE information for clean up.

7. HANDLING AND STORAGE

Precautions for Safe Handling:

Silica dust can be harmful if inhaled. Exposure to silica dust from cutting, grinding, or polishing can cause acute lung injury, silicosis, or cancer. Wear a respirator when cutting, grinding, or polishing. Use wet cutting methods and do not dry cut. When cutting, perform cutting in a well-ventilated area.

Conditions for Safe Storage, Including Incompatibilities:

Do not store near acids. If mosaic (mixed) tile products contact some acids, damage/discoloration to the surface may occur. Shelf life is unlimited.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure Table

Composition	OSHA PEL	OSHA AL	NIOSH REL	ACGIH TLV
Crystalline silica as quartz	50 µg/m ³	25 µg/m ³	0.05 mg/m ³	0.025 mg/m ³
Feldspar				
-Respirable Fraction**	5 mg/m ³	N.E.	N.E.	N.E.
-Total Dust**	15 mg/m ³	N.E.	N.E.	N.E.
Aluminum Oxide				
-Respirable Fraction	5 mg/m ³	N.E.	N.E.	1 mg/m ³
-Total Dust**	15 mg/m ³	N.E.	N.E.	N.E.
Iron Oxide	10 mg/m ³	N.E.	5 mg/m ³	5 mg/m ³
Magnesium Oxide	15 mg/m ³	N.E.	N.E.	10 mg/m ³
Biotite/Muscovite				
-Respirable Fraction	20 mppcf*	N.E.	3 mg/m ³	3 mg/m ³
-Total Dust**	15 mg/m ³	N.E.	N.E.	N.E.
Limestone				
-Respirable Fraction	5 mg/m ³	N.E.	5 mg/m ³	N.E.



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-Total Dust	15	N.E.	10	N.E.
	mg/m ³		mg/m ³	
Magnesium Carbonate				
-Respirable Fraction**	5	N.E.	5	N.E.
	mg/m ³		mg/m ³	
-Total Dust**	15	N.E.	10	N.E.
	mg/m ³		mg/m ³	

**Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques

** Covered as particles not otherwise regulated per OSHA and particles not otherwise specified per ACGIH.

N.E.- Not established

AL – Action Level

Based on an 8hr TWA or Time Weighted Average

8.2 ENGINEERING CONTROLS/PERSONAL PROTECTION

Ventilation: Use adequate ventilation to keep exposure to dust below recommended exposure levels. Avoid inhalation of dust. The highest probability of silica exposure occurs during installation using dry cutting methods. Wet cutting methods and exposure control methods set forth in OSHA Table 1 of 29 CFR § 1926.1153 are recommended.

Respiratory Protection: Use of a properly fitted NIOSH/MSHA approved particulate respirator, such as a half-facepiece particulate respirator with N95 filters or a 95-rated filter efficiency, is recommended when cutting mosaic (mixed) tile products for installation as set forth in OSHA Table 1 of 29 CFR § 1926.1153 and Cal/OSHA’s construction standard, Cal. Code Regs. tit. 8 § 1532.3.

Eye Protection: Use dust-proof goggles or safety glasses with side shields. Contact lenses may absorb irritants. Do not wear contact lenses in work areas.

Skin Protection: Cotton or leather work gloves should be worn when cutting this product to minimize skin exposure to dust and/or cuts. Wash hands prior to eating, drinking, or smoking, and at the end of the work shift, after cutting operations are conducted.

NOTE: Personal protection information in Section 8 is based on general information for normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the assistance of an industrial hygienist or other qualified professional be obtained.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Brittle solid; color may vary
Odor:	Odorless
Odor Threshold:	Not applicable
pH:	Not applicable
Melting Point:	3110°F
Freezing Point:	Not applicable
Boiling Point:	4046°F
Flash Point:	Not applicable
Evaporation Rate (Ethyl; Ether = 1):	Not applicable
Flammability:	Not applicable
Upper/Lower Flammability Limits:	Not applicable
Vapor Pressure:	Not applicable
Vapor Density:	Not applicable
Relative Density:	Not applicable
Solubility in Water:	Insoluble



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Partition Coefficient: n-octanol/water:	Not applicable
Auto-ignition Temperature:	Not applicable
Decomposition Temperature:	Not applicable
Viscosity:	Not applicable

10. STABILITY AND REACTIVITY

Reactivity:	Not available
Chemical Stability:	Stable in normal conditions and storage conditions
Possibility of Hazardous Reactions:	Not available
Conditions to Avoid:	Avoid contact with acids (e.g., acetic, hydrofluoric, etc.)
Incompatibility (Materials to Avoid):	Avoid contact with acids (e.g., acetic, hydrofluoric, etc.)
Hazardous Polymerization:	Will not occur
Hazardous Decomposition Products:	Avoid contact with acids (e.g., acetic, hydrofluoric, etc.)

11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Primary Routes of Exposure

None for intact mosaic (mixed) tile products.

Inhalation and potential exposure to eyes, hands, or other body parts if contact is made with broken product, and/or during procedures involving the cutting of mosaic (mixed) tile products.

Acute Effects *Crystalline Silica*

No acute effects from exposure to intact mosaic (mixed) tile products are known.

In very rare cases, symptoms of acute silicosis, a form of silicosis (a nodular pulmonary fibrosis) associated with exposure to respirable crystalline silica, may develop following acute exposure to extremely dusty environments in excess of established permissible occupational exposure limits and/or failure to follow product use instructions or regulatory standards. Signs such as labored breathing and early fatigue may indicate silicosis; however, these same symptoms can arise from many other causes. Working with broken or cut mosaic (mixed) tile produces a potential for cuts to the hands and exposed body parts. Acute effects such as eye irritation may occur if associated with high dust operations such as dry cutting.

Chronic Effects *Crystalline Silica*

No chronic effects are known for exposure to intact mosaic (mixed) tile products.

Long-term, continual exposure to respirable crystalline silica in excess of established permissible occupational exposure limits and/or failure to follow product use instructions or regulatory standards may lead to the development of silicosis, a nodular pulmonary fibrosis (NPF). NPFs are also associated with pulmonary tuberculosis, bronchitis, emphysema, COPD, and other airway diseases. This type of chronic exposure to silica dust may also result in the development of autoimmune disorders, chronic renal disease, and other adverse health effects. Signs such as labored breathing and early fatigue may indicate silicosis; however, these same symptoms can also arise from many other causes.

Potential Adverse Interactions

Silicosis may be complicated by severe mycobacterial or fungal infections and result in tuberculosis (TB). Silicosis is a risk factor for developing TB. Any existing respiratory or pulmonary diseases may be complicated by exposure



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to an excess of respirable crystalline silica. Smoking may increase the risk of adverse effects if done in conjunction with occupational exposure to silica dust at or above permissible exposure limits.

Carcinogen Status

Respirable crystalline silica is classified by the International Agency for Research on Cancer (IARC) as a Group I Carcinogen (carcinogenic to humans). The National Toxicology Program (9th Report) lists respirable crystalline silica as “Known to be a Human Carcinogen.” USDOL/OSHA lists crystalline silica in the OSHA Hazard Communication Carcinogen list.

Acute Toxicity

Not available.

12. ECOLOGICAL INFORMATION

No information available at this time.

13. DISPOSAL CONSIDERATIONS

Waste should be disposed of in a landfill certified to accept such materials in accordance with federal, state, and local regulations.

14. TRANSPORTATION INFORMATION

D.O.T. Shipping Name:	Not applicable
Hazard Class:	Non-regulated (for disposal purposes material is non-hazardous Class III regulated material)
ID Number:	Not applicable
Marking:	Not applicable
Label:	None
Placard:	None
Hazardous Substance/RQ:	Not applicable
Shipping Description:	Mosaic, Mixed Tile products
Packaging References:	None

15. REGULATORY INFORMATION

This product’s components have been previously introduced into U.S. commerce and are either listed on or exempted from the Toxic Substances Control Act (TSCA) Inventory of Chemicals in Commerce.

Title 22, Division 2, California Code of Regulations Chapter 3 (Proposition 65): This product contains crystalline silica known to the State of California to cause cancer.

California Code of Regulations, Title 8, Section 1532.3 (Cal. Code Regs. tit. 8, §1532.3), effective October 17, 2016: Cutting operations for this product are performed at the installation site during installation. When cutting this product for installation, follow Cal-OSHA’s regulatory standard for construction work for crystalline silica, Section 1532.3.

Other State Regulations: Crystalline silica is listed as “hazardous” or “toxic” on state right to know laws including, but not limited to, Massachusetts, New Jersey, and Pennsylvania.



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This product or its components meets the following hazard definition(s) as defined by the Occupational Safety and Health Hazard Communication Standard (29 CFR Section 1910.1200):

- | | | |
|---|---|---|
| <input type="checkbox"/> Combustible Liquid | <input type="checkbox"/> Flammable Aerosol | <input type="checkbox"/> Oxidizer |
| <input type="checkbox"/> Compressed Gas | <input type="checkbox"/> Explosive | <input type="checkbox"/> Pyrophoric |
| <input type="checkbox"/> Flammable Gas | <input checked="" type="checkbox"/> Health Hazard (Sections 3 & 11) | <input type="checkbox"/> Unstable |
| <input type="checkbox"/> Flammable Liquid | <input type="checkbox"/> Organic Peroxide | <input type="checkbox"/> Water Reactive |
| <input type="checkbox"/> Flammable Solid | | |

Based on information presently available, this product does not meet any of the hazard definitions of 29 CFR Section 1910.1200.

Note: The information in this data sheet provides information related to the potential hazards associated with dusts which may be produced when cutting mosaic (mixed) tile products or otherwise changing the shape of the product during installation.

16. ADDITIONAL INFORMATION

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