



Making Dream Surfaces Attainable

Date of Preparation: April 2025

## SAFETY DATA SHEET

### PORCELAIN TILE

#### 1. PRODUCT IDENTIFICATION

Product Name: Porcelain Tile  
 Synonyms: Porcelain  
 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

Tile products are mixtures of predominantly clays, silica sand, and other minerals that have been mixed with water and fired in a high temperature kiln. The finished fired tiles are odorless, stable, non-flammable, and pose no immediate hazard to health. Respiratory protection may be needed to prevent excess exposure to airborne particulates if dust is produced by cutting tiles 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)

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)



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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

Tile products are mixtures of predominantly clays, silica sand and other minerals, that have been mixed with water and fired in a high temperature kiln. Tiles are manufactured in various shapes, sizes, and colors. Under normal conditions these products do not release hazardous materials after installation and are not considered hazardous waste, should disposal be necessary.

Composition	CAS#	Estimated % by Wt.
Crystalline Silica as Quartz	CAS: 14808-60-7	6 – 13%
Clays	CAS: 1332-58-7 (Kaolin/Ball Clay) 1302-78-9 (Bentonite)	20 – 55%
Nepheline Syenite	CAS: 37244-96-5	0 – 50%
Talc	CAS: 14807-96-6	0 – 25%
Feldspar	CAS: 68476-25-5	0 – 30%
Biotite	CAS: 12001-26-2	0 – 5%

### 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 tiles.

Inhalation: Remove to fresh air.

Ingestion: Not applicable for intact tiles.

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:

Flush eyes with water if dust gets in eyes.

### 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

### 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures:

Do not breathe dust. Do not handle until all safety precautions have been read and understood. Use personal protection recommended in Section 8 of this SDS.



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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

We recommend wet cutting or the score and snap method during the installation process. Improper installation techniques could expose installer to inhalation of harmful silica dust. Do not dry cut product using power tools during the installation process. Using dry cutting methods could present a risk of acute lung injury. If adequate ventilation cannot be achieved, wear a mask or respirator.

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.

Conditions for Safe Storage, Including Incompatibilities:

Do not store near acids. If tiles 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 <sup>3</sup>	25 µg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	0.025 mg/m <sup>3</sup>
Clays (Kaolin/Ball/Bentonite)				
-Respirable Fraction	5 mg/m <sup>3</sup>	N.E.	5 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>
-Total Dust**	15 mg/m <sup>3</sup>	N.E.	10 mg/m <sup>3</sup>	N.E.
Nepheline Syenite				
-Respirable Fraction**	5 mg/m <sup>3</sup>	N.E.	N.E.	N.E.
-Total Dust**	15 mg/m <sup>3</sup>	N.E.	N.E.	N.E.
Talc	20 mppcf*	N.E.	2 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>
Feldspar				
-Respirable Fraction**	5 mg/m <sup>3</sup>	N.E.	N.E.	N.E.
-Total Dust**	15 mg/m <sup>3</sup>	N.E.	N.E.	N.E.
Biotite				
-Respirable Fraction	20 mpccf*	N.E.	3 mg/m <sup>3</sup>	3 mg/m <sup>3</sup>
-Total Dust**	15 mg/m <sup>3</sup>	N.E.	N.E.	N.E.

Based on an 8hr TWA or Time Weighted Average



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

N.E. – Not Established

AL – Action Level

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

## 8.2 ENGINEERING CONTROLS/PERSONAL PROTECTION

We recommend wet cutting or the score and snap method during the installation process. Improper installation techniques could expose installer to inhalation of harmful silica dust. Do not dry cut product using power tools during the installation process. Using dry cutting methods could present a risk of acute lung injury. If adequate ventilation cannot be achieved, wear a mask or respirator. Wet cutting methods and exposure control methods set forth in OSHA Table 1 of 29 CFR § 1926.1153 are recommended.

Ventilation: Use adequate ventilation to keep exposure to dust below recommended exposure levels. Avoid inhalation of dust. Do not dry cut product using power tools during the installation process. Using dry cutting methods could present a risk of acute lung injury.

Respiratory Protection: When adequate ventilation cannot be achieved, 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 tiles for installation.

Eye Protection: None. Refer to cutting tool manufacturer’s recommendation.

Skin Protection: None.

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



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## 10. STABILITY AND REACTIVITY

Reactivity:	Not available
Chemical Stability:	Stable in 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 tile.

Inhalation of dust during the tile cutting process.

#### **Acute Effects** *Crystalline Silica*

No acute effects from exposure to intact tile 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.

#### **Chronic Effects** *Crystalline Silica*

No chronic effects are known for exposure to intact tile.

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 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 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 in excess of 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 (9<sup>th</sup> 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.



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**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:	Porcelain Tiles
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.

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.

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 during cutting or otherwise changing the shape of the tile during installation.

**16. ADDITIONAL INFORMATION**

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