



## SAFETY DATA SHEET

### CERAMIC TILE

#### 1. PRODUCT IDENTIFICATION

Product Name: Ceramic Tile (For purposes of this SDS, the term “ceramic” encompasses all types of tile products manufactured/sourced by MS International Inc.)

Synonyms: Ceramic Tile

Recommended Use: Building Material - Tile products manufactured/sourced by MS International are environmentally preferable building materials when compared to other floor/wall coverings. As defined by guidelines issued by the Environmental Protection Agency, the American Society for Testing & Materials, and the Federal Trade Commission, Tile is one of the most environmentally friendly building materials you can buy today. Should you desire additional information, please direct your inquiry to the address below.

Manufacturer Name: MS International Inc.

Address: Corporate Office  
2095 N. Batavia Street, Orange CA 92865

Telephone: (714) 685-7500

Emergency Assistance: ChemTel, Inc.  
(24/7, 365, multilingual): 1-800-255-3924

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 natural occurring 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, hand and eye protection may be needed to prevent excess exposure to airborne particulates if dust is produced by cutting tiles during installation.

Classification of the Chemical 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:

Crystalline Silica:



Category 3 (Respiratory tract irritation) (H335)



Category 1A (Carcinogenicity) (H350)

GHS Signal Word: Danger

GHS Hazard Statements:

(H350) May cause cancer (inhalation)

(H335) May cause respiratory irritation

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

## 2. HAZARDS IDENTIFICATION (CONT)

### GHS Precautionary Statements:

Do not handle until all safety precautions have been read and understood. (P202)

Do not breathe dust/spray. (P260 + P261)

Wash skin thoroughly after handling. (P264)

Do not eat, drink or smoke when using this product. (P270)

Wear protective gloves, protective clothing, eye protection, face protection. (P280)

### Hazards Not Otherwise Classified:

Inhalation: Do not breathe dust. See "Potential Health Effects" in Section 11 for more details.

### Unknown Acute Toxicity:

Not applicable

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Tile products are mixtures of predominately Clays, Silica Sand and other naturally-occurring 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# / EINECS#	Estimated % by Wt.	EU Class
Crystalline silica as quartz	CAS: 14808-60-7	0-30	(67/548/EEC)
	EINECS: 238-878-4		Xn R48/20
Clays	CAS: 1332-58-7	20-55	(67/548/EEC)
	EINECS: 265-064-6		Xi R36/37/38
Nepheline syenite	CAS: 37244-96-5	0-50	(67/548/EEC)
	EINECS: N/A		Xi R36/37/38
Talc	CAS: 14807-96-6	0-40	(67/548/EEC)
	EINECS: 238-877-9		Xi R36/37/38
Feldspar	CAS: 68476-25-5	0-15	(67/548/EEC)
	EINECS: 270-666-7		Xi R36/37/38
Biotite	CAS: 12001-26-2	0-5	(67/548/EEC)
	EINECS: 215-479-3		Xi R36/37/38

## 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 if exposed to large amounts of tile dust. Administer artificial respiration if breathing has stopped. Keep victim at rest. Call for prompt medical attention.
Ingestion:	Not applicable for intact tiles.

### Most Important Symptoms/Effects, Acute and Delayed:

May cause respiratory irritation. May cause cancer. Causes damage to organs 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 tiles are cut.

## 5. FIRE-FIGHTING MEASURES AND INFORMATION

Suitable Extinguishing Media:	ABC fire extinguisher
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 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 Cleaning Up:

Avoid creating excessive dust. Clean up dust with a vacuum system with a High-efficiency particulate (HEPA) air 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 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.

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	NIOSH REL	ACGIH TLV*	Units
Crystalline silica as quartz	50 μg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	0.025 mg/m <sup>3</sup>	
Clays				
-respirable fraction	5	5	2	mg/m <sup>3</sup>
-total dust**	15	10	10	mg/m <sup>3</sup>
Nepheline syenite				
-respirable fraction**	5	N.E.	N.E.	mg/m <sup>3</sup>
-total dust**	15	N.E.	N.E.	mg/m <sup>3</sup>
Talc				
-respirable fraction	2	2	2	mg/m <sup>3</sup>
-total dust**	15	10	10	mg/m <sup>3</sup>
Feldspar				
-respirable fraction	N.E.	N.E.	N.E.	mg/m <sup>3</sup>
-total dust**	15	N.E.	N.E.	mg/m <sup>3</sup>
Biotite				
-respirable fraction**	5	3	3	mg/m <sup>3</sup>
-total dust**	15	N.E.	N.E.	mg/m <sup>3</sup>

\* 2006 Edition, respirable fraction to be determined as per Appendix D of ACGIH TLV.

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

N.E.- Not established

### 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 Table 1 of 29 CFR § 1926.1153 are recommended.

**Respiratory Protection:** Use of a properly fitted NIOSH/MSHA approved particulate respirator is recommended when cutting tiles for installation.

**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:	Not available (>2200 °F)
Freezing Point:	Not available
Boiling 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 (Air = 1):	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

## 10. STABILITY AND REACTIVITY

Reactivity:	Not available
Chemical Stability:	Stable in current form.
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:	None.

## 11. TOXICOLOGICAL INFORMATION

### Potential Health Effects

#### **Primary Routes of Exposure**

None for intact tile. Inhalation and potential exposure to eyes, hands, or other body parts if contact is made with broken tile, and/or during procedures involving the cutting of tiles.

#### **Acute Effects**

No acute effects from exposure to intact tile are known. Working with broken or cut 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 tile. 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 caused by generation of tile dust. Signs such as labored breathing and early fatigue may indicate silicosis; however, these same symptoms can arise from many other causes.

#### **Chronic Effects**

No chronic effects are known for exposure to intact tile. Long-term, continual exposure to respirable crystalline silica at or above established permissible occupational exposure limits may lead to the development of silicosis, a nodular pulmonary fibrosis (NPF). NPFs are also associated with pulmonary tuberculosis, bronchitis, emphysema, 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. Recent epidemiologic studies demonstrate that workers exposed to elevated silica concentrations have a significant risk of developing chronic silicosis. 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). Epidemiologic studies have established that silicosis is a risk factor for developing TB. Any existing respiratory or pulmonary diseases may be complicated by exposure to 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

#### **Overview of Animal Testing**

Short term experimental studies of rats have found that intratracheal instillation of quartz particles leads to the formation of discrete silicotic nodules in rats, mice and hamsters.

#### **Oral (silica) Lethality**

LD50 Rat oral >22,500 mg/kg LD50  
 Mouse oral >15,000 mg/kg  
 LC50 Carp >10,000 mg/l (per 72 hr.)

**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/Ceramic Tiles  
 Packaging References: None

**15. REGULATORY INFORMATION**

This product and/or its components have been previously introduced into U.S. commerce and is listed in the Toxic Substances Control Act (TSCA) Inventory of Chemicals in Commerce. Hence, it is subject to all applicable provisions and restrictions under TSCA 40 CFR Section 721 and 723.250.

State Regulations: Crystalline silica as quartz (CAS: 14808-60-7)  
 Massachusetts – Right To Know List  
 New Jersey – Right to Know Hazardous Substance List  
 Pennsylvania – RTK (Right to Know) List

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**

Global Harmonization Identification System

GHIS: Health: 3 Fire: 4 Reactivity: 4

Hazardous Material Identification System

HMIS: Health: 0 Fire: 0 Reactivity: 0

National Fire Protection Association

NFPA: Health: 0 Fire: 0 Reactivity: 0

Date of Preparation: June 1, 2015

Revision Date: July 11, 2023