

Last Update : March 11, 2024

MATERIAL SAFETY DATA SHEET : PORCELAIN & CERAMIC

1. PRODUCT IDENTIFICATION

Common Name : Porcelain & Ceramic (For the purposes of this SDS, the term “Porcelain & Ceramic” encompasses all types of Porcelain & Ceramic products sourced/imported by Tile Mode, Inc.)
Company Name : Tile Mode, Inc.
Address : 17912 Cowan Unit C, Irvine, CA 92614 P: (714) 284 - 0118
Emergency Contact : Poison Control Center- 1-800-222-1222 or 911
Recommended Use : Building Material - Porcelain & Ceramic - products sourced/imported by Tile Mode Inc. are building materials typically used as floor/wall and countertop coverings.

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 INFORMATION

Porcelain & Ceramic Tile products are mixtures of naturally occurring minerals that are mixed with water and fired in a high temperature kiln. The finished products are odorless, stable, non- flammable, and pose no immediate hazard to health. Dry cutting with motorized equipment and removal of installed Porcelain & Ceramic Tile will generate dust that can expose you to crystalline silica (quartz). Unprotected and uncontrolled exposure to such dust is dangerous to health and can cause severe illness such as silicosis, lung cancer, fibrosis of the lungs, tuberculosis, kidney disease, abrasions of the cornea and irritation of the skin and eyes.

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 Pictogram:

Crystalline Silica:



Category 3 (Respiratory tract irritation) (H335)



1A(Carcinogenicity)(H372)

Label Signal Word: **Danger**

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)

CAL OSHA - Silica Emergency Temporary Standard link for printed version: https://www.dir.ca.gov/dosh/dosh_publications/emergency-silica-reg-employer-info.pdf

2. HAZARDS INFORMATION (CONT)

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)

Potential Health Effects:

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Porcelain & Ceramic Tile products are composed of natural occurring minerals that have been mixed with water and fired in a high temperate kiln. The 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. These products do not contain asbestos.

Composition	CAS#	Estimated % by Wt.
Quartz/Crystalline Silica	CAS: 14808-60-17	0-30
Amorphous Silica (Fused)**	CAS: 60676-86-0	0-80
Nepheline Syenite	CAS : 37244-96-5	0-50
Clays	CAS: 1332-58-7	20-60
Talc	CAS: 14807-96-6	0-40
Biotite	CAS: 14807-96-6	0-5

** Amorphous Silica includes some of the following: Al₂O₃, SiO₂, CaO, K₂O, Na₂O, Fe₂O₃

The presence and percentage of the listed elements will vary depending on the specific tile variety.

4. 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 Natural Stone products.
- Inhalation : Remove to fresh air if exposed to dust above allowable OSHA limits.
www.dir.ca.gov/dosh/respiratory-silica-FAQ.html#permissible
Administer artificial respiration if breathing has stopped. Keep person at rest. Call for prompt medical attention.
- Ingestion : Not applicable for intact Porcelain and Ceramic Tile products.

Have emergency eyewash station available in area where products are cut.

5. FIRE-FIGHTING MEASURES AND INFORMATION

Flash Point (Method Used)	: Not applicable
Autoignition Temperature	: Not applicable
Flammable Limits (% by Volume in Air)	: LEL - not applicable / UEL - not applicable
Fire Extinguishing Media	: None required, Non-flammable
Special Fire Fighting Procedures	: None required
Fire and Explosion Hazards	: None

6. ACCIDENTAL RELEASE MEASURES

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

Do Not Dry Cut using motorized equipment due to potential exposure to Harmful Silica Dust. Use wet cutting methods to reduce generation of dust. When cutting, grinding, or removing, use equipment with integral dust collection and/or use local exhaust ventilation. Use respiratory protection in the absence of effective engineering controls.

Do not store near acids. Some acids may damage and or discolor the surface of the product. Shelf life is unlimited.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Exposure Table

Composition	OSHA PEL	NIOSH IDLH	ACGIH TLV*	Units
Crystalline silica as Quartz				
-Respirable Limits 8hr TWA*	0.5 %SiO ₂ +2	0.05	0.025	mg/m ³
-Total Dust	10 %SiO ₂ +2	N.E.	N.E.	mg/m ³
Amorphous Silica				
-Respirable Fraction	80 %SiO ₂	0.1	N.E.	mg/m ³
Clays				
-Respirable Fraction	5	N.E.	2	mg/m ³
-Total Dust	15	N.E.	10	mg/m ³
Nepheline Synte				
-Respirable Fraction	5	N.E.	N.E.	mg/m ³
-Total Dust	15	N.E.	N.E.	mg/m ³
Talc				
-Respirable Fraction	2	2	2	mg/m ³
-Total Dust	15	10	10	Mg/m ³
Biotite				
-Respirable Fraction	5	15	3	mg/m ³
-Total Dust	15	N.E.	N.E.	Mg/m ³

* Abbreviations:

N.E. - Not Established, TWA=Time-Weighted Average, OSHA=Occupational Safety and Health Administration
 AGCIH=American Conference of Governmental Industry Hygienists, NIOSH=National Institute of Occupational Safety and Health

8.2 Exposure Controls / Personal Protection

Ventilation: Avoid inhalation of dust. Use adequate ventilation to keep exposure to dust below recommended exposure levels.

www.dir.ca.gov/dosh/respiratory-silica-FAQ.html#permissible

The highest probability of silica exposure occurs during installation using dry cutting methods or during removal of installed Porcelain & Ceramic Tile. **Do Not Dry Cut** using motorized equipment due to potential exposure to Harmful Silica Dust. Use wet cutting methods only to reduce dust generation.

Respiratory Protection: Use of a properly fitted NIOSH/MSHA approved particulate respirator is recommended when cutting Porcelain & Ceramic Tile products for installation or during the removal of installed product.

8.2 Exposure Controls / Personal Protection (Cont)

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
Melting Point	: (>2100 °F)
Boiling Point	: Not applicable
Vapor Pressure	: Not applicable
Vapor Density (Air = 1)	: Not applicable
Solubility in Water	: Insoluble
Specific Gravity (H ₂ O = 1)	: 1.6 to 2.1
Percent Volatile by Volume	: Not applicable
Evaporation Rate (Ethyl Ether = 1)	: Not applicable
Viscosity	: Not applicable

10. PHYSICAL AND CHEMICAL PROPERTIES

Stability	: Stable in current form.
Conditions to Avoid	: Avoid contact with acids (e.g., Hydrochloric, acetic, hydrofluoric, etc.)
Incompatibility (Materials to Avoid)	: Avoid contact with acids (e.g., Hydrochloric, 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 Porcelain & Ceramic Tile products. 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 products, and/or for operations involving the removal of installed products.

11. TOXICOLOGICAL INFORMATION (CONT.)

Acute Effects

No acute effects from exposure to intact Porcelain & Ceramic Tile products are known. Working with broken or cut Porcelain & Ceramic 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 or during the removal of installed product. 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 Porcelain & Ceramic 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 Porcelain & Ceramic Tile products. 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 epidemiological 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). Epidemiological 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 and NIOSH have recommended that crystalline silica be considered a potential occupational carcinogen.

12. ECOLOGICAL INFORMATION

No information available at this time

13. DISPOSAL CONSIDERATION

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 : Natural Stone/Granite products
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.

Title 22 Division 2, California Code of Regulation Chapter 3 (Proposition 65): This product contains a chemical or chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

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):

☐ Combustible Liquid	☐ Flammable Aerosol	☐ Oxidizer
☐ Compressed Gas	☐ Explosive	☐ Pyrophoric
☐ Flammable Gas	☒ Health Hazard (Section 3 &11)	☐ Unstable
☐ Flammable Liquid	☐ Organic Peroxide	☐ Water Reactive
☐ Flammable Solid		

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 product during installation and/or removal.

16. ADDITIONAL INFORMATION

Hazardous Material Identification System
HMIS: Health: 0 Fire: 0 Reactivity: 0
National Fire Protection Association
NFPA: Health: 0 Fire: 0 Reactivity: 0

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