

SAFETY DATA SHEET



Product Name: Glass

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GEM International urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product.

1.0 IDENTIFICATION

Product Name: Glass Tile

(For purposes of this SDS, the term Glass encompasses all types of Glass products sourced/imported by GEM International including Glass Mosaic tile)

Recommended Use:

Building material typically used as floor, wall, and countertop coverings.

Company Identification:

GEM International Corporate Office
12922 Raymer Street
North Hollywood, CA 91605

Emergency Contact: GEM International, Bernard Vinuya at 818-503-9848.

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.

2.0 HAZARD IDENTIFICATION

Glass Tile products are odorless, stable, non-flammable, not hazardous as shipped and pose no immediate hazard to health. Fabrication and processing of Glass Tile (i.e., cutting, sawing, grinding, breaking, crushing, drilling, sanding, or sculpting) will generate dust that can expose you to crystalline silica. 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.

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)



Categories 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)

Precautionary Statements:

P202 - Do not handle until all safety precautions have been read and understood. P260 & P261 - Do not breathe dust.

P264 - Wash skin thoroughly after handling.

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

P280 - Wear protective gloves, protective clothing, eye protection, face protection.

Other Hazards:

Exposure may aggravate pre-existing eye, skin, or respiratory conditions

3.0 COMPOSITION/INFORMATION ON INGREDIENTS

Glass Tile products are mixture of naturally occurring minerals that are mixed and fired in a high temperature kiln. These products do not contain asbestos. These products 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	Synonyms	CAS#	Estimated %
Crystalline Silica	Respirable silica, (quartz, cristobalite, and/or tridymite) crystallized silicon dioxide	14808-60-7	0-30
Amorphous silica*	Fumed or fused silica	60676-86-0	0-80
Clays	—	1332-58-7	0-60
Talc	—	14807-96-6	0-40
Biotite	Iron Mica, Black Mica	12001-26-2	0-5

*Amorphous Silica includes some of the following: Al_2O_3 , SiO_2 , CaO , K_2O , Na_2O , Fe_2O_3

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

4.0 FIRST AID MEASURES

Description of first aid measures:

General advice

Processing the material may release dust (respirable crystalline silica) that is hazardous. Dust may cause mechanical irritation to eyes, nose, throat, and lungs.

Skin: If dust generated from cutting, grinding, crushing, or breaking is on skin, wash thoroughly with soap and water after working with product. Get medical attention if irritation persists.

Inhalation: If dust generated from cutting, grinding, crushing, drilling, or breaking is inhaled remove to fresh air. Get medical attention if respiratory symptoms persist. Administer artificial respiration if breathing has stopped.

Keep person at rest. Call for prompt medical attention.

Eyes: If dust generated from cutting, grinding, crushing, drilling, or breaking is in eyes, rinse cautiously with water for several minutes. Get medical attention if irritation persists.

Ingestion: If dust is ingested, rinse mouth. Do NOT induce vomiting. Get medical attention.

Most Important symptoms and effects, both acute and delayed

Fabrication and processing of Glass Tile (i.e., cutting, sawing, grinding, breaking, crushing, drilling, sanding, or sculpting) will generate dust. Exposure to dust may cause irritation to eyes, nose, throat, respiratory tract, and an allergic skin reaction.

High levels of exposure to crystalline silica dust may cause lung damage (silicosis). Silicosis is a form of disabling pulmonary fibrosis which can be progressive and may lead to death. Long term exposure to respirable crystalline may cause lung cancer and other non-malignant respiratory diseases, kidney effects, and immune system effects.

5.0 FIRE-FIGHTING MEASURES AND INFORMATION

Extinguishing Media:

Product or product dust is not combustible or flammable. Use extinguishing media appropriate for materials in area of surrounding fire.

Special Hazards:

None related to this product. Product or product dust is not combustible. Hazardous reactions will not occur under normal conditions.

Advice for Firefighters:

None related to this product. Follow appropriate precautions for materials in area of surrounding fire. Wear appropriate protective equipment, including respiratory protection, if entering area with dust generation.

6.0 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Avoid creating dust. Do not breathe dust. Do not get dust in eyes, on skin, or on clothing. If dust gets on one's skin, wipe down the area of skin with a damp cloth. Do not handle until all safety precautions have been read and understood. Use appropriate personal protective equipment.

Environmental Precautions:

Contain dust spills with appropriate barriers and prevent migration into sewers and public waters

Methods and materials for containment and cleaning up:

Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment. Clean up dust with high-efficiency particulate (HEPA) vacuum system, damp cloth or wet sweeping and place into closable container for disposal. Do not dry sweep or use compressed air. Wear personal protective equipment specified in Section 8.

7.0 HANDLING AND STORAGE

Precautions for Safe Handling:

Do not handle until all safety precautions have been read and understood. When cutting, grinding, or removing, use equipment with integral dust collection and/or use local exhaust ventilation. Use wet cutting methods to reduce generation of dust. Use respiratory protection in the absence of effective engineering controls. Implement regular and thorough good housekeeping procedures. See Section 8.

Conditions for Safe Storage/Incompatibilities: Do not store near acids. Some acids may damage and or discolor the surface of the product. Shelf life is unlimited.

8.0 EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits Control Parameters

Composition	OSHA *PEL	CAL OSHA *PEL	ACGIH *TLV	NIOSH **REL	UNITS
Respirable Crystalline Silica (quartz, cristobalite, and/or tridymite)	0.05 [AL 0.025]	0.05 [AL 0.025]	0.025	0.05	mg/m ³
Amorphous silica (respirable)	20 mppcf	3	NE	NE	mg/m ³
Clays (respirable)	5	2	2	5	mg/m ³
Clays (total)	15	NE	NE	10	mg/m ³
Talc (respirable)	20 mppcf	2	2	2	mg/m ³
Biotite (respirable <1% silica)	20 mppcf	3	0.1	3	mg/m ³

Exposure Limit Information obtained from OSHA Annotated Table Z1, Table Z3 & Particulates Not Otherwise Regulated (PNOR)

*8-Hour Time Weighted Average (TWA)

**Up to 10-Hour Time Weighted Average (TWA)

Abbreviations:

ACGIH = American Conference of Governmental Industrial Hygienists NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration mppcf = millions of particles per cubic feet

NE = Not Established,

PEL = Permissible Exposure Limit, REL=Recommended Exposure Limit, TLV=Threshold Limit Value, AL = Action Level, mppcf = millions of particles per cubic foot

Engineering Controls:

When cutting, grinding, or removing material use equipment with integral dust collection and/or use local exhaust ventilation. Use wet cutting methods to reduce generation of dust. Use respiratory protection in the absence of effective engineering controls. Use adequate ventilation to keep exposure to dust below recommended exposure levels. The highest probability of silica exposure occurs during fabrication and installation using dry cutting methods or during removal of installed material. Use wet cutting methods only or HEPA vacuums.

Individual Personal Protective Equipment and Measures

Respirator: If wet methods or ventilation engineering controls cannot maintain silica dust exposure below the action level when fabricating or processing Glass Tile, wear a NIOSH approved respirator. A full-face, tight-fitting powered air purifying respirator (PAPR), or a respirator providing at least equal protection, equipped with a HEPA, N100, or P100 Organic Vapor Combination filter cartridges is required.

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: Wear cotton or leather work gloves 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. If product is altered in a way to generate excessive dust, wear suitable protective clothing. Wash or dispose of clothing after use.

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.

9.0 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Brittle solid; color will vary
Physical State:	Solid
Color:	Various colors
Odor:	Odorless
Melting Point/Freezing Point:	>1000° F/not applicable
Boiling Point:	Not applicable
Flammability	Not applicable
Explosion Limits (Lower/Upper)	Not applicable
Flash Point	Not applicable
Auto Ignition Temperature	Not applicable
Decomposition Temperature	Not applicable
pH	Not applicable
Kinematic viscosity	Not applicable
Solubility in Water	Insoluble
Specific Gravity (H2) = 1):	1.6 -2.1

Partition coefficient n-octanol/water	Not applicable
Vapor Pressure	Not applicable
Density/relative density	Not applicable
Relative vapor density	Not applicable
Particle characteristics	Not applicable

10.0 STABILITY AND REACTIVITY

Reactivity	Not classified as a reactivity hazard
Chemical Stability	Stable in current form
Possibility of hazardous reactions	None
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

11.0 TOXICOLOGICAL INFORMATION

Primary Routes of Exposure

No exposure occurs for intact Glass Tile products. Inhalation and potential exposure to eyes, hands, or other body parts can occur if contact is made with dust generated from cutting, grinding, crushing, drilling, or breaking, and/or for operations involving dust generation from the removal of installed products.

Acute Effects

No acute effects from exposure to intact Glass Tile products are known. 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.

Silicosis: 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 Glass Tile dust. Signs such as labored breathing and early fatigue may indicate silicosis; however, these same symptoms can arise from many other causes.

Glass

Acute Toxicity Values:

Silica: LD50 oral rat > 22,500 mg/kg – Does not meet criteria for classification

Silica: LC50 dermal rat > 5,000 mg/kg- does not meet criteria for classification Skin

Corrosion/Irritation: Not classified

Eye damage/Irritation: Not classified

Chronic Effects

No chronic effects are known for exposure to intact Glass Tile products.

Carcinogenicity: Inhalation of respirable crystalline silica may cause cancer.

Silicosis and Target Organ Toxicity: 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).

Silicosis is a form of disabling pulmonary fibrosis which can be progressive and may lead to death. Long term exposure to respirable crystalline silica results in a significant risk of developing silicosis and other non- malignant respiratory disease, lung cancer, kidney effects, and immune system effects. NPFs are also associated with pulmonary tuberculosis, bronchitis, emphysema, and other airway diseases. Signs such as labored breathing and early fatigue may indicate silicosis; however, these same symptoms can also arise from many other causes.

Reproductivity Toxicity: Not classified

Germ Cell Mutagenicity: Not classified

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 (NTP) (9th Report) lists respirable crystalline silica as "Known to be a Human Carcinogen". USDOL/OSHA and NIOSH consider crystalline silica to be a potential occupational carcinogen.

12.0 ECOLOGICAL INFORMATION

Ecotoxicity: Silica (quartz) is not known to be ecotoxic

Persistence and Degradability: Silica is not degradable

Bioaccumulative potential: Silica is not bioaccumulative

Mobility in soil: Silica is not mobile in soils
Other adverse effects: No data available

13.0 DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, state, and federal regulations, as well as regional, national, territorial, provincial, and international regulations.

Additional Information: Crystalline silica dust collection containers may remain hazardous when empty. Continue to observe all precautions to minimize dust generation.

14.0 DISPOSAL CONSIDERATIONS

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:	Glass Tile
Packaging References:	None

15.0 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.


Glass

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	X	Health Hazard (Sections 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.

California Proposition 65

 **WARNING:** This product can expose you to silica, crystalline (airborne particles of respirable size) which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

16.0 OTHER INFORMATION

Hazardous Material Identification System

HMIS: Health: 0 Fire: 0 Reactivity: 0

National Fire Protection Association

NFPA: Health: 0 Fire: 0 Reactivity: 0

Comply with all Federal and State OSHA regulations regarding the handling of respirable crystalline silica. OSHA 1910.1053 Respirable Crystalline Silica Standard <https://www.osha.gov/silica-crystalline/general-industry-maritime>.

In California refer to the Emergency Temporary Standard on Respirable Crystalline Silica for General Industry (Title 8, California Code of Regulations, Section 5204) <https://www.dir.ca.gov/dosh/respiratory-silica-FAQ.html#ets>.

The information herein is provided in good faith and believed to be accurate as of the issuance date of the SDS. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. Since conditions for use of the product are not under the control of GEM International, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product.