ARIZONA TILE

SAFETY DATA SHEET

Engineered Stone - Quartz

1. PRODUCT IDENTIFICATION

Common Name:	Quartz (For purposes of this SDS, the term "Quartz" encompasses all types of engineered quartz stone products sourced/imported by Arizona Tile, LLC)
Synonyms:	Engineered Stone, Quartz
Importer Name: Address:	Arizona Tile, LLC Corporate Office 8829 S. Priest Dr. Tempe, AZ 85284 (480)893-9393
Emergency Assistance:	VP of Operations Rick Collins (480) 797-4739
Recommended Use:	Building Material – Engineered Stone products sourced/imported by Arizona Tile, LLC are building materials that are 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 IDENTIFICATION

Quartz products are mixtures of Natural Quartz, Resins and other naturally occurring minerals. The finished, Quartz products are odorless, stable, non-flammable, and pose no immediate hazard to health. Fabrication and processing of engineered stone, (i.e., cutting, sawing, grinding, breaking, crushing, drilling, sanding, or sculpting) 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 a silicosis, lung cancer, fibrosis of the lungs, tuberculosis, kidney disease, abrasions of the cornea and irritation of the skin and eyes. Quartz products are not hazardous as shipped and used by the end user.

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)

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)

2. HAZARDS IDENTIFICATION (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

Quartz products are composed of Quartz, Polyester Resins and other naturally occurring minerals and are fabricated into various shapes, sizes. These products do not contain asbestos. 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	>90%
Titanium Dioxide	CAS: 13463-67-7	0-10%
Cristobalite	CAS: 14464-46-1	0-10%
Other Natural Stone / Minerals[2]	N/A	0-10%
Polyester Resins	Mixture	≤10%

The presence and percentage will vary depending on specific product model. Under normal conditions these products do not release hazardous materials after installation and are not considered hazardous waste should disposal be necessary.
[2] Inorganic Minerals including but not limited to: Feldspar, Iron Oxide, Aluminum Oxide, Glass, Mirror, and others.

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.

https://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 engineered stone products.

Have emergency eyewash station available in area where products are cut

4. FIRE-FIGHTING MEASURES AND INFORMATION

Quartz products can be combusted only with difficulty. Decomposition products resulting from the polymer and pigments degrading at elevated temperatures include various hydrocarbons, carbon dioxide, carbon monoxide and water. Fumes of metal oxides and mica particles could also be released.

Flash Point (Method Used):	490^0 C
Autoignition Temperature:	Not applicable
Flammable Limits (% by Volume in Air):	LEL - not applicable
Flammable Limits (% by Volume in Air):	UEL - not applicable
Fire Extinguishing Media:	Water, Dry Chemical, CO_2, Foam
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

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.

Do not store near acids. Shelf life is unlimited.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Exposure Table

Composition	CAL OSHA PEL	NIOSH IDLH	ACGIH TLV	Units
Crystalline Silica as Quartz	0.05	0.05	0.025	mg/m3
-Respirable Limits 8hr TWA*	%SiO2+2			
-Total Dust	10	N.E.	N.E.	mg/m3
	%SiO2+2			
Titanium Dioxide	15	N.E.	N.E.	mg/m3

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

8.2 EXPOSURE CONTROLS/PERSONAL PROTECTION

Comply with all OSHA regulations regarding the handling of respirable crystalline silica.
www.dir.ca.gov/dosh/respiratory-silica-FAQ.html

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 fabrication and installation using dry cutting methods or during removal of installed natural stone. Use wet cutting methods only or HEPA vacuums. Respiratory Protection: Fabrication and processing of Natural Stone, (i.e., cutting, sawing, grinding, breaking, crushing, drilling, sanding, or sculpting) will generate dust that can expose you to crystalline silica (quartz). 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 filter cartridges is required when fabricating or processing Natural Stone.

(Title 8, California Code of Regulations, section 5204, Occupational Exposure to Respirable Crystalline Silica)

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 will vary
Odor:	Odorless
Melting Point:	Not Available (>1000 ^{0}F)
Boiling Point:	Not applicable
Vapor Pressure:	Not applicable
Vapor Density (Air = 1):	Not applicable
Solubility in Water:	Insoluble
Specific Gravity (H2) = 1):	2.2 – 2.5
Percent Volatile by Volume:	Not applicable
Evaporation Rate (Ethyl Ether = 1):	Not applicable
Viscosity:	Not applicable

10. STABILITY AND REACTIVITY

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:	Various Hydrocarbons, Carbon Dioxide, Carbon Monoxide Fumes & Water

11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Primary Routes of Exposure

None for intact engineered stone 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.

Acute Effects

No acute effects from exposure to intact engineered stone products are known. Working with broken or cut engineered stone 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 engineered stone 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 engineered stone 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 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 (IRAC) 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 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 ubstance/RQ:	Not applicable
Shipping Description:	Engineered Stone / Quartz 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	**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.

16. ADDITIONAL INFORMATION

Hazardous Material Identification System

HMIS: Health: 1 Fire:0 Reactivity: 0

National Fire Protection Association

NFPA: Health: 1 Fire:0 Reactivity: 0