

SAFETY DATA SHEET

Effective Date June 21, 2006

Revision Date November 17, 2016



SECTION 1: PRODUCT IDENTIFICATION

Material Name: SLATE NOT A CONTROLLED PRODUCT

Company: PENTAL SURFACES

3900A Industry Drive, Fife, WA 98424

253-344-5150

Emergency Contact Information: Poison Control Center- 1-800-222-1222 or 911

Recommended use: Building material, Countertops, Floor and Wall Tile, and other applications. As defined by guidelines by the Environmental Protection Agency, the American Society for Testing and Materials, and the Federal Trade Commission, tile is one of the most environmentally friendly building materials.

SECTION 2: HAZARD IDENTIFICATION

This product contains mixtures of clays, silica sand, and other natural occurring minerals in slab form. When crushed and mixed with water and baked at high temperatures. The finished products are odorless, stable, nonflammable, and pose no known health hazard. When cut, ground or during demolition this product can produce Silica containing airborne particulates which can lead to lung cancer

GHS Classification:

Global Harmonization Identification System GHIS: Health: 3 Fire: 4 Reactivity: 4

Carcinogenicity Category 1A (H350)

Specific Target Organ toxicity, single exposure; Respiratory tract irritation-

Category 3A (H335)

Specific target organ toxicity- repeated exposure- Category 1A (H372)

GHS Pictogram:

Crystalline Silica



Category 3 (Respiratory Tract Irritation) (H335)



Category 1A (Carcinogenicity) (H372)

SECTION 2: HAZARD IDENTIFICATION (CONT)**Signal Word:** DANGER**Hazard Statements:**

(H350) May cause CANCER (Inhalation)

(H335) May cause Respiratory Irritation

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

Precautionary Statements:

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

Do not breath dusts (P260) when cutting, use water and/or exhaust ventilation to minimize exposure.

Wear respiratory protection (If ventilation is inadequate) (P284)

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

Wash skin thoroughly after handling (P264)

Potential Health Effects:

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

SECTION 3: COMPOSTION OF INGEDIENTS

Chemical Name	CAS#	% by Weight (approximate)
Silicon Dioxide, SiO ₂	14808-60-7	45.6-56.5
Aluminum Oxide, Al ₂ O ₃	1344-28-1	16-25
Ferric Oxide, Fe ₂ O ₃	1309-37-1	5.4-8.4
Potassium Oxide, K ₂ O	12136-45-7	2.8-6.5
Magnesium Oxide, MgO	1309-48-4	2.6-3.8
Carbon Dioxide, CO ₂	124-38-9	0.8-5.5
Calcium Oxide, CaO	1305-78-8	1.6-4.2
Sulfur, S	7704-34-9	1.1-2.7
Carbon, C	7440-44-0	1.5-2.1
Titanium(IV) Oxide, TiO ₂	1317-70-0	0.7-1.9
Sodium Oxide, Na ₂ O	1313-59-3	0.5-1.5
Magnesia, MnO	82375-77-7	<0.1
Water, H ₂ O	7732-18-5	<0.3

SECTION 4: FIRST AID MEASURES

Eyes: (Dusts) Immediately flush with large amounts of water for a minimum of 15 minutes. Seek medical attention if irritation persists.

Skin: Wash thoroughly after working with natural stone products.

***Inhalation:** Remove to fresh air if exposed to large amounts of dusts. Administer artificial respiration if breathing has stopped. Seek medical attention immediately.

Ingestion: Not applicable for intact natural stone products.

*Always use methods to reduce dusts during cutting (wet cutting/grinding and/or exhaust ventilation) Use respiratory protection as necessary

Always have emergency eyewash available in area where products are cut or ground.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point:	Not applicable
Auto Ignition Temperature:	Not applicable
Flammable Limits LEL & UEL:	Not applicable
Fire Extinguishing Media:	None required-Non-Flammable
Fire and Explosion Hazards:	None

SECTION 6: ACCIDENTAL RELEASE

Avoid creating excessive amounts of dusts. Clean up dusts with wet mop methods or use an approved HEPA vacuum system.

SECTION 7: HANDLING AND STORAGE

When cutting, or grinding, use equipment with integral dust collection and/or exhaust ventilation. Use wet cutting methods to reduce dusts. Use respiratory protection in the absence of effective engineering controls, or when PEL's are exceeded.

Do not store near acids. Natural stone products may be damaged or discolored

Section 8: EXPOSURE CONTROLS PERSONAL PROTECTION

Component	OSHA PEL	ACGIH TLV
Silicon Dioxide, SiO ₂	(R) 0.05mg/m ³ CAL/OSHA (R) 0.01mg/m ³	(R) 0.025mg/m ³
Aluminum Oxide, Al ₂ O ₃	(T) 15mg/m ³ (R) 5mg/m ³	10mg/m ³
Ferric Oxide, Fe ₂ O ₃	10mg/m ³	5mg/m ³
Potassium Oxide, K ₂ O	Not Established	Not Established
Magnesium Oxide, MgO	10mg/m ³	10mg/m ³
Carbon Dioxide, CO ₂	5000ppm or 9000mg/m ³	5000ppm or 9000mg/m ³
Calcium Oxide, CaO	5mg/m ³	2mg/m ³
Sulfur, S	Not Established	Not Established
Carbon, C	Not Established	Not Established
Titanium(IV) Oxide, TiO ₂	Not Established	10mg/m ³
Sodium Oxide, Na ₂ O	Not Established	Not Established
Magnesia, MnO	Not Established	Not Established
Water, H ₂ O	Not Established	Not Established

(T)= Total Dusts

(R)= Respirable Dusts

Engineering Controls: Use integral dust collection and/or exhaust ventilation, avoid inhalation of dusts. The highest probability of silica exposure occurs during installation using dry cutting methods or during removal of installed natural stone. Wet cutting methods to reduce or maintain dust levels below the PEL is highly recommended.

Skin: Wear impermeable gloves during cutting, sanding, or grinding

Eye: Wear approved Safety Goggles, or Safety Glasses and Face Shield when cutting, sanding, or grinding.

Respiratory: Wear a NIOSH approved respirator with N95 particulate filters or higher if PEL is exceeded or when engineering controls are not feasible. Higher levels of exposure will dictate the type of respiratory protection used. Review NIOSH chemical hazard guide for information on respiratory protection at cdc.gov/niosh/npg

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Solid, color may vary
Odor:	Odorless
Melting Point:	Not applicable
Boiling Point:	Not applicable
Vapor Pressure:	Not applicable
Vapor Density:	Not applicable
Solubility in Water:	Insoluble
Specific Gravity:	2.6-2.81
Percent Volatile by Volume:	Not applicable
Evaporation Rate:	Not applicable
Viscosity:	Not applicable

SECTION 10: STABILITY AND REACTIVITY

Stability:	Stable in current form
Conditions to Avoid:	Avoid contact with acids, avoid contact with dusts created during cutting or grinding
Incompatibility:	Avoid contact with acids, and strong oxidizers
Hazardous Polymerization:	Will not occur
Hazardous Decomposition Products:	Avoid inhalation of dusts created when cutting/ grinding, or removing tiles

SECTION 11: TOXICOLOGICAL INFORMATION

Potential Health Effects

Primary Routes of Exposure

None for intact natural stone products. Inhalation and potential exposure to eyes, hands, and other body parts if contact is made with broken stone, and/or during procedures involving cutting, grinding, and removal of installed products

Acute Health Effects

No acute health effects from exposure to intact natural stone products. Working with broken or cut natural stone produces the potential for cuts to the hands or other exposed body parts. Acute effects such as eye irritation may occur if associated with high dust operations such as dry cutting, or during removal of installed stone. In rare cases, symptoms of acute silicosis, a form of silicosis associated with exposure to respirable crystalline silica, may develop following acute exposure to extremely dusty environments caused by generation of dusts. Signs such as labored breathing and early fatigue may indicate silicosis, however, these symptom may arise from other causes.

SECTION 11: TOXICOLOGICAL INFORMATION (CONT)

Chronic Effects

No chronic effects are known for exposure to intact natural 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. 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. Existing respiratory or pulmonary diseases may be complicated by exposure to respirable crystalline silica. Smoking may increase the risk of adverse effects 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

California Proposition 65 Warning: Crystalline Silica is known in the state of California to be a human Carcinogen.

Overview of Animal Testing

Short term experimental studies of rats have found that intra-tracheal 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.)

SECTION 12: ECOLOGICAL INFORMATION

None available at this time.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose all waste in accordance with federal, state, and local regulations. Material is non-hazardous Class III regulated material.

SECTION 14: TRANSPORT INFORMATION

D.O.T Shipping Name:	Not Applicable
Hazard Class:	Non Regulated
ID Number:	Not Applicable
Marking:	Not Applicable
Labels:	None
Placard:	None
Hazardous Substance/RQ:	Not Applicable
Shipping Description:	Natural Stone Products

SECTION 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.

This natural stone tile contains <1 percent by weight each of the following elements, which are SARA 313 Recordable: Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Chromium, Copper, Manganese, Mercury, Nickel, Lead, Silver, Thallium, Tin, Titanium, Vanadium, and Zinc

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):
Health Hazard (Sections 2&11)

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

SECTION 16: OTHER INFORMATION

Global Harmonization Identification System GHS: 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

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Prepared By:
Mike Meeker
Safety Coordinator
Pental Granite and Marble
3900A Industry Drive
Fife, WA 98424
253 344 5184

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