

# SAFETY DATA SHEET

## SECTION I. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Radical

**CHEMICAL FAMILY:** None

**PRODUCT USE DESCRIPTION:** Ceramic Tile

**MANUFACTURER/IMPORTER/DISTRIBUTOR:** StonePeak Ceramics  
238 Porcelain Tile Drive  
Crossville, TN 38555

**INFORMATION:** [techservices@stonepeakceramics.com](mailto:techservices@stonepeakceramics.com)

## SECTION II. HAZARDS IDENTIFICATION

### GHS CLASSIFICATION

Respirable crystalline silica may be present in the dust from this product at levels exceeded 0.1%. If silica levels above 0.1% are detected, additional measures to reduce the generation of dust and/or respirator protective measures should be taken.

### GHS Label Elements

Hazard pictograms:



**Signal word:** Warning

### Hazard statements:

H315: Causes skin irritation

H320: Causes eye irritation

H335: May cause respiratory irritation

H350: May cause cancer

H372: Causes damage to organs through prolonged or repeated exposure

### Precautionary statements:

General:

P102: Keep out of reach of children.

P103: Read label before use.

**Prevention:**

P260: Do not breathe dust.

P285: In case of inadequate ventilation wear respiratory protection.

**Response:**

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313: IF exposed or concerned: Get medical advice/attention.

P337+P313: If eye irritation persists: Get medical advice/attention.

**Storage:**

Not Applicable

**Disposal:**

P501: Dispose of contents and container in accordance with existing federal, state, and local environmental control laws.

### SECTION III. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms:** None

**Hazardous Components:**

Weight Percent	Components	CAS No.
0.27%	Silica crystalline - cristobalite	14464-46-1
2.5-10.0%	Silica crystalline - quartz	14808-60-7
0.6 – 1.0%	Silica crystalline - tridymite	15468-32-3

### SECTION IV FIRST AID MEASURES

**Most Important Symptom(s)/Effect(s):**

**Acute:** May cause eye irritation with redness and tearing. Difficult breathing may occur. This product contains crystalline silica, which has been classified by IARC as (Group I) carcinogenic to humans when inhaled.

**Delayed:** May cause eye irritation with redness and tearing. Difficult breathing may occur. Inhalation of silica can cause a chronic lung disorder, silicosis or cancer.

**Eye Contact:** In case of contact, flush eyes with plenty of water for at least 15 minutes. Use lukewarm water if possible. Use fingers to ensure that eyelids are separated and that the eye is being irrigated. Then remove contact lenses, if easily removable, and continue eye irrigation for not less than 15 minutes. Get medical attention.

**Skin Contact:** Take off contaminated clothing and shoes. Wash off with soap and water. Use lukewarm water if possible. Wash contaminated clothing before re-use.

**Inhalation:** Move to an area free from further exposure. If necessary, get medical attention immediately.

**Ingestion:** Wash mouth out with water. Do not induce vomiting. If necessary, get medical attention.

**Notes to Physician:** In case if significant ingestion and/or inhalation a specialist doctor should be seen.

## SECTION V. FIREFIGHTING MEASURES

**Suitable Extinguishing Media:** The product is not combustible.

**Unsuitable Extinguishing Media:** None

**Fire Fighting Procedure:** None

**Hazardous Decomposition Products:** None

**Unusual Fire/Explosion Hazards:** None.

## SECTION VI. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Avoid dust formation. Do not breathe dust. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

**Environmental precautions:** None

**Methods and material for containment and cleaning up:** Broken tile will produce sharp edges. Use appropriate hand protection when handling tile. Eye protection should be worn while cutting tiles.

Use wet cutting methods where possible. Avoid generating dust. Wear appropriate respiratory protection.

## SECTION VII. HANDLING STORAGE

**Handling/Storage Precautions:** Minimize dust generation and accumulation. Fragile. Do not drop.

**Storage Period:** Not applicable

**Storage Temperature Minimum:** Not applicable

**Storage Temperature Maximum:** Not applicable

**Storage Conditions:** Not applicable

**Substances to Avoid:** Not applicable

## SECTION VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Limits

Ingredient Name	CAS#	OSHA Exposure Limit	ACGIH Exposure Limit
Silica crystalline-cristobalite (respirable)	14464-46-1	0.050 mg/m <sup>3</sup> (PEL) 0.025 mg/m <sup>3</sup> (AL)	0.025 mg/m <sup>3</sup> (TLV)
Silica, crystalline- quartz (Respirable)	14808-60-7	<b>Note:</b> OSHA limits are for the combined amounts of respirable materials of all three forms of crystalline silica	<b>Note:</b> ACGIH limits are for combined amounts of respirable materials of all three forms of crystalline silica.
Silica, crystalline- tridymite (Respirable)	15468-32-3		

AL = Action Level (Regulatory limit for mandated actions set by OSHA)

mg/m<sup>3</sup> = milligrams per cubic meter. 1.0 mg = 1,000 micrograms (μ)

TLV = Threshold Limit Value (Recommended by the American Council of Governmental Industrial Hygienists)

PEL = Permissible Exposure Limit (Regulatory 8 hour exposure limit set by OSHA)

**Ventilation Requirements:** If cutting tile, use wet methods and/or local exhaust ventilation to reduce dust in the workplace.

**Respiratory Protection:** In case of lack or suitable dust extraction, a NIOSH/MSHA approved respiratory protection equipment is recommended.

**Hand Protection:** Use Proper gloves (e.g., Cut Resistant Gloves) when cutting/installing.

**Eye Protection:** Wear safety glasses with side shield when cutting/installing.

**Skin Protection:** Wear protective clothing

**Medical Surveillance:** Persons who are exposed to dusts which contains more than 0.025 mg/m<sup>3</sup> of respirable crystalline silica averaged over an eight-hour day, for 30 or more days per year, should receive medical surveillance in accordance with 29 CFR 1910.1053.

**Additional Protective Measures:** Not applicable

**Engineering Controls:** Wet cutting methods if cutting with masonry saw or grinding. Local exhaust or room ventilation is required when cutting and installing. Avoid use of compressed air for housekeeping purposes.

## SECTION VIII. PHYSICAL AND CHEMICAL PROPERTIES

State of Matter: Solid

Color: Grey, Note: Color can vary.

Odor: No Data Available

Odor Threshold: No Data Available

pH: N/A

Freezing Point: N/A

Boiling Point: N/A

Flash Point: N/A

Evaporation Rate: N/A

Lower explosion limit: N/A

Upper Explosion Limit: N/A

Vapor Pressure: N/A

Vapor Density: N/A

Density: No data available

Relative Vapor Density: N/A

Specific Gravity: No Data Available

Solubility in Water: Not soluble  
 Partition Coefficient: N/A  
 Auto-ignition Temperature: N/A  
 Decomposition Temperature: No Data Available  
 Dynamic Viscosity: No Data Available  
 Kinematic Viscosity: No Data Available  
 Molecular Weight: No Data Available

## SECTION X. STABILITY AND REACTIVITY

**Stability:** Stable under normal use conditions.

**Hazardous Reactions:** The product does not react under normal working conditions.

**Materials to Avoid:** Not applicable

**Incompatible Materials:** Not applicable

**Hazardous Decomposition Products:** Not applicable

## SECTION XI. TOXICITY INFORMATION

**Likely Routes of Exposure:** Inhalation, Ingestion, Skin Contact, Eye Contact

### Health Effects and Symptoms for Silica

**Acute:** Acute silicosis can occur within a few weeks to months after inhalation exposure to extremely high levels of respirable crystalline silica. Acute silicosis causes decreased lung function and can result in heart disease secondary to the lung disease: heart failure and cor pulmonale. Death from acute silicosis can occur within months to a few years of disease onset, and persons with acute silicosis are at high risk of contracting other lung diseases including tuberculosis, atypical mycobacterial infections, and fungal superinfections. Quantitative information on the level of exposure that causes acute silicosis is not available, but available information indicates those levels are far in excess of permissible exposure limits. Animal studies also suggest that pulmonary reactions of rats to short-duration exposure to freshly fractured silica mimic those seen in acute silicosis in humans.

Accelerated silicosis results from exposure to high levels of airborne respirable crystalline silica, and usually occurs within 2 to 10 years of initial exposure. Accelerated silicosis causes decreased lung function and can result in heart disease secondary to the lung disease. Accelerated silicosis has a rapid, severe course and persons with this condition are at high risk of contracting other lung diseases including tuberculosis, atypical mycobacterial infections, fungal superinfections, and lung cancer. Quantitative information on the level of exposure that causes accelerated silicosis is not available, but available information indicates those levels are substantially in excess of permissible exposure limits.

**Chronic:** Chronic silicosis generally occurs after 10 years or more of inhalation exposure to respirable crystalline silica at levels below those associated with acute and accelerated silicosis. Chronic silicosis in most cases is a slowly progressive disease resulting in decreased lung function and can result in heart disease secondary to the lung disease. Its effects are disabling and may lead to death. Persons with chronic silicosis are at high risk of contracting other lung diseases including tuberculosis, atypical mycobacterial infections, fungal superinfections, and lung cancer. On September 12, 2013, OSHA published a preliminary quantitative risk assessment concluding that the available evidence indicates that employees exposed to respirable crystalline silica well below the current PELs are at increased risk of lung cancer mortality and silicosis.

Chronic obstructive pulmonary disease, COPD, including chronic bronchitis and emphysema, occurs in silica-exposed workers, including those who do not develop silicosis. Respirable crystalline silica exposure and smoking may be synergistic for COPD, that is, there is evidence that the combined effect of exposure to respirable crystalline silica and smoking may be greater than additive.

Respirable crystalline silica is recognized by OSHA, NTP and IARC as a cause of lung cancer. Respirable crystalline silica is an independent risk factor from smoking for lung cancer. Respirable crystalline silica exposure and smoking may be synergistic for lung cancer, that is, there is some evidence that the combined effect of exposure to respirable crystalline silica and smoking may be greater than additive. There is substantial evidence suggesting an association between exposure to inhaled respirable crystalline silica and increased risks of renal (kidney) and systemic autoimmune disease (scleroderma, rheumatoid arthritis, and systemic lupus erythematosus).

**Toxicity data:** Crystalline silica is not acutely toxic. Reliable numerical measures of chronic toxicity do not exist. Silica LD50 oral rate > 22,500 mg/kg.

**SECTION XII. ECOLOGICAL INFORMATION**

No data available to allow the evaluation of the environmental effect of this material. As far as possible, the dispersion of this material into the environment should be avoided.

**SECTION XIII. DISPOSAL CONSIDERATIONS**

**Waste Disposal Method:** Waste disposal should be in accordance with existing federal, state and local environmental control laws. Incineration is the preferred method.

**Empty Container Precautions:** Waste disposal should be in accordance with existing federal, state and local environmental control laws.

**SECTION XIV. TRANSPORTATION INFORMATION**

Not hazardous for the purposes of transportation.

## SECTION XV. FEDERAL REGULATORY INFORMATION

The law in force in the county of the end-use is to be followed.

**Toxic Substances Control Act (TSCA) status:** Crystalline silica (quartz) is listed on the EPA TSCA inventory under the CAS No 14808-60-7.

**Resource Conservation and Recovery Act (RCRA) status:** Disposed product is not a hazardous waste under RCRA. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) status: No CERCLA Reportable Quantity has been established for any ingredient in this product.

**Emergency Planning and Community Right to Know Act (SARA Title III) status:** Not an Extremely Hazardous Substance under §302. Not a Toxic and Chemical under §313. Hazard Categories under §§311/312: Acute.

**Clean Air Act status:** This product is not processed with nor does it contain any Class I or Class II ozone depleting substances.

**California Proposition 65 status:** Crystalline silica (airborne particles of respirable size) is classified as a substance known to the State of California to be a carcinogen.

**Massachusetts Toxic Use Reduction Act status:** Silica, crystalline (respirable size, <10 microns) is "toxic" for purposes of the Massachusetts Toxic Use Reduction Act.

Pennsylvania Worker and Community Right to Know Act status Quartz is a hazardous substance, but it is not a special hazardous substance or an environmental hazardous substance under the Pennsylvania Worker and Community Right to Know Act.

## SECTION XVI. OTHER INFORMATION

**REASON FOR ISSUE:** Revision to incorporate data from product analysis

**PREPARED BY:** C. Caudill (EnSafe, Inc.)

**APPROVED BY:** Wm. Smith, StonePeak Ceramics – Crossville, TN

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**SUPERSEDES DATE:** None

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