

## 1 Identification

### Product identifier

Product name: **Pentalquartz**

### Application of the substance / the mixture

Quartz surfacing designed for use indoors, particularly kitchen and bathroom worktops, flooring, cladding and other similar uses.

Uses advised against None specified.

### Details of the supplier of the safety data sheet

#### Manufacturer/Supplier:

Architectural Surfaces Group, LLC  
405 E Main St, Chattanooga, TN 37408  
(423) 899-6233

Emergency telephone number 253-324-0440

## 2 Hazard(s) identification

### Classification of the substance or mixture



GHS08

Carcinogenicity 1A

H350 May cause cancer.

Specific Target Organ Toxicity - Repeated Exposure 1 H372 Causes damage to organs through prolonged or repeated exposure.



GHS07

Specific Target Organ Toxicity - Single Exposure 3 H335 May cause respiratory irritation.

#### Additional information:

No health risks associated with normal use of this crystalline silica (quartz) containing product, during transport, storage or post installation. Health hazards stated above are associated with exposure to respirable crystalline silica dust derived from material processing manually or automatically (sawing, grinding, routing, drilling, sanding, or polishing, etc.).

This product contains mixtures of Quartz, Feldspar, and/or other natural occurring minerals. These finished products mined and cut to various sizes and 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 Silicosis and lung cancer.

### Label elements

**GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

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**Product name: Pentalquartz****Hazard pictograms**

GHS07 GHS08

**Signal word** Danger**Hazard-determining components of labeling:**

Crystalline Silica (quartz)

**Hazard statements**

H350 May cause cancer.

H335 May cause respiratory irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

**Precautionary statements**

P201 Obtain special instructions before use.

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

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash thoroughly after handling.

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

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P312 Call a poison center/doctor if you feel unwell.

P314 Get medical advice/attention if you feel unwell.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Additional information:**

Potential Health Effects: Inhalation: Do not breathe dust.

See Safe Handling and Storage information in section 7 &amp; 8, and Health Hazards in Section 11 for more information.

**Other hazards****Results of PBT and vPvB assessment** The components in this formulation do not meet the criteria for classification as PBT or vPvB.**PBT:** Not applicable.**vPvB:** Not applicable.**3 Composition/information on ingredients****Components:**

CAS: 14808-60-7	Crystalline Silica (quartz)	>90%
	Carcinogenicity 1A, H350; Specific Target Organ Toxicity - Repeated Exposure 1, H372 Specific Target Organ Toxicity - Single Exposure 3, H335	

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**Nonhazardous components:** Pigments/Resins and trace minerals including Al<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, CaO, MgO, Na<sub>2</sub>O, K<sub>2</sub>O (5-10%)

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**4 First-aid measures****Description of first aid measures****General information:**

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

IF exposed or concerned: Get medical advice/attention.

**After inhalation:**

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Avoid breathing dust/fume/gas/mist/vapors/spray

Call a poison center/doctor if you feel unwell.

**After skin contact:**

Wash with plenty of soap and water.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash hands thoroughly after handling. Do not touch eyes.

Take off contaminated clothing and wash it before reuse.

**After eye contact:**

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

**After swallowing:**

Do NOT induce vomiting.

If swallowed: Call a poison center/doctor if you feel unwell.

**Most important symptoms and effects, both acute and delayed**

Any additional important symptoms and effects are described in Section 11: Toxicological Information.

**Indication of any immediate medical attention and special treatment needed** Treat symptomatically.

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**5 Fire-fighting measures****Extinguishing media****Suitable extinguishing agents:**

Water spray. Dry powder. Foam. Carbon dioxide.

Use fire fighting measures that suit the environment.

**For safety reasons unsuitable extinguishing agents:** None known

**Special hazards arising from the substance or mixture**

Polymers and pigments contained in the quartz agglomerate can degrade at high temperatures, with the consequent possibility of release of hazardous decomposition products such as hydrocarbons, carbon dioxide, carbon monoxide and water, metal oxide fume and mica particles. It is necessary to use appropriate measures and freighting facilities in order to counter emergencies that such fire hazardous decomposition products may pose.

**Advice for firefighters****Protective equipment:**

Firefighters use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

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Do not breathe smoke, gases, or vapors generated.  
Fight fire from upwind position.

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**6 Accidental release measures****Personal precautions, protective equipment and emergency procedures:**

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Do not breathe dust/fume/gas/mist/vapours/spray.

**Environmental precautions:** Avoid release to the environment.

**Methods and material for containment and cleaning up:**

Do not engage in any dry sweeping, shoveling, disturbing, or other dry clean up of wastes, dusts, debris, or other materials that may contain crystalline silica.

Wet methods or vacuum cleaners equipped with HEPA filters shall be used to collect all wastes, dusts, residues, debris, or other materials that are generated from high-exposure trigger tasks or that otherwise contain or are contaminated with respirable crystalline silica.

Wastes, dusts, residues, debris, or other materials that are generated from high exposure trigger tasks or that otherwise contain or are contaminated with respirable crystalline silica shall be promptly and properly cleaned up and placed into leak-tight containers, bags, or equivalent. At a minimum, all such wastes, dusts, residues, debris, or other materials shall be cleaned up at the end of each shift or more frequently as needed to ensure there is no visible dust build-up in the workplace.

**Reference to other sections**

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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**7 Handling and storage****Precautions for safe handling:**

Do not handle until all safety precautions have been read and understood.

Prevent formation of dust.

Do not breathe dust or fume.

Employees engaged in housekeeping tasks involving wastes, dusts, residues, debris, or other materials generated from high-exposure trigger tasks use proper respirator protection (See Section 8).

See Section 8 for protective equipment and control measures.

Do not eat, drink or smoke when using product.

Wash thoroughly after handling.

Accessible washing facilities must be available to employees engaged in high-exposure trigger tasks.

Do not use compressed air on waste, dust, debris, residue, or other materials that may contain crystalline silica, on any surface or clothing or body surface that may contain crystalline silica, or to back flush, backwash, or clean water, air, or other types of filters that may contain crystalline silica.

Wear protective gloves/protective clothing/eye protection/face protection.

Obtain special instructions before use.

Any high-exposure trigger tasks (such as: machining, crushing, cutting, drilling, abrading, abrasive blasting, grinding, chiseling, carving, gouging, polishing, buffing, fracturing, intentional breaking, or intentional chipping of artificial stone that contains more than 0.1 percent by weight crystalline silica, or natural stone that contains more than 10 percent by weight crystalline silica. High-exposure trigger tasks also includes clean up, disturbing, or handling of wastes, dusts, residues, debris, or other materials created during the above listed tasks.), must be conducted within a regulated area.

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Do not engage in any dry sweeping, shoveling, disturbing, or other dry clean up of wastes, dusts, debris, or other materials that may contain crystalline silica.

**Information about protection against explosions and fires:** No special measures required.

**Conditions for safe storage, including any incompatibilities****Information about storage in one common storage facility:**

Product should be properly stored and/or secured to prevent it from falling and breaking.

Store away from incompatible materials. See Section 10.

Store locked up.

**Further information about storage conditions:**

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Specific end use(s)**

Recommended Processing Procedures: Natural and engineered stone slabs are not hazardous as shipped, or as used by the end customer after installation. However, exposure to crystalline silica dust during fabrication and processing of this product may cause cancer or other diseases. Exposure to dust must be controlled, below applicable occupational exposure limits, at all times. Always wet cut this product. **DO NOT DRY CUT OR DRY POLISH THIS PRODUCT UNDER ANY CIRCUMSTANCES.** Dry cutting this product generates unsafe levels of crystalline silica dust. Use of wet methods alone may not provide adequate control of dusts; additional methods may be needed. Always verify that dust control methods reduce exposure to concentrations below applicable exposure limits. Federal and State exposure limits are included on the product Safety Data Sheet. Always wear a respirator and other appropriate personal protective equipment when working with this product. Always use wet cleanup methods. Unsafe levels of crystalline silica dust can be generated when fabricating, cutting, sawing, routing, drilling, grinding, polishing, sanding, demolishing or otherwise working with this product, unless appropriate safety precautions are followed. For handling and use, you must review the Architectural Surfaces Safety Data Sheet at [www.arcsurfaces.com](http://www.arcsurfaces.com) or by scanning the QR code on this product.

**8 Exposure controls/personal protection****Additional information about design of technical systems:****METHODS OF COMPLIANCE:**

**Non-High-exposure trigger tasks:** The employer shall use engineering and work practice controls to reduce and maintain employee exposure to respirable crystalline silica to or below the applicable occupational exposure limits (i.e., Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) and Action Level (AL)), unless the employer can demonstrate that such controls are not feasible. Wherever such feasible engineering and work practice controls are not sufficient to reduce employee exposure to or below the PEL and AL, the employer shall nonetheless use them to reduce employee exposure to the lowest feasible level and shall supplement them with the use of respiratory protection.

**High-exposure trigger tasks:** The employer shall use the following engineering controls and work practices for all high-exposure trigger tasks, regardless of employee exposures, exposure assessments, or objective data.

(A) Engineering Controls. Effective wet methods, as defined in subsection (b), shall be used.

(B) Housekeeping and Hygiene:

1. Wastes, dusts, residues, debris, or other materials that are generated from high exposure trigger tasks or that otherwise contain or are contaminated with respirable crystalline silica shall be promptly and properly cleaned up and placed into leak-tight containers, bags, or equivalent. At a minimum, all such wastes, dusts, residues, debris, or other materials shall be cleaned up at the end of each shift or more frequently as needed to ensure there is no visible dust build-up in the workplace. [Also noted in Sections 6 & 7]
2. Wet methods or vacuum cleaners equipped with HEPA filters shall be used to collect all wastes, dusts, residues, debris, or other materials that are generated from high-exposure trigger tasks or that otherwise contain or are contaminated with respirable crystalline silica. [Also noted in Section 6]
3. Employees engaged in housekeeping tasks shall use respirator protection. [See respiratory protection below]
4. The employer shall provide readily accessible washing facilities. [Also noted in Section 7]

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(D) The following practices are prohibited for high-exposure trigger tasks, regardless of exposure levels.

1. Any use of compressed air:
  - a. On waste, dust, debris, residue, or other materials that may contain crystalline silica;
  - b. On any surface or clothing or body surface that may contain crystalline silica; and
  - c. To back flush, backwash, or clean water, air, or other types of filters that may contain crystalline silica.
2. Any dry sweeping, shoveling, disturbing, or other dry clean-up of wastes, dusts, debris, or other materials that may contain crystalline silica.
3. Use of employee rotation as a means of reducing employee exposure to respirable crystalline silica.
4. Walking or moving equipment on or through dry dust, debris, residue, or other materials that may contain crystalline silica.

Technical measures and the application of adequate working methods take priority over the use of personal protection equipment.

Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Control parameters**

Components with limit values that require monitoring at the workplace:	
<b>CAS: 14808-60-7 Crystalline Silica (quartz)</b>	
PEL	Long-term value: 0.05* mg/m <sup>3</sup> *resp. dust; 30mg/m <sup>3</sup> /%SiO <sub>2</sub> +2
REL	Long-term value: 0.05* mg/m <sup>3</sup> *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m <sup>3</sup> *respirable particulate matter, A2

**Regulatory information**

PEL: Guide to Occupational Exposure Values (OSHA PELs)

REL: Guide to Occupational Exposure Values (NIOSH RELs)

TLV: Guide to Occupational Exposure Values (TLV)

**Regulatory information**

The employer shall ensure that no employee is exposed to an airborne concentration of respirable crystalline silica in excess of 50 µg/m<sup>3</sup>, calculated as an 8-hour TWA.

Exposure assessment [per the Emergency Temporary Standard (ETS) issued by the California Division of Occupational Safety and Health (Cal/OSHA) for respirable crystalline silica (RCS)]

(1) General. The employer shall assess the exposure of each employee who is or may reasonably be expected to be exposed to respirable crystalline silica at or above the action level in accordance with either the performance option or the scheduled monitoring option. Regardless of exposures or expected exposures, all high-exposure trigger tasks shall be assessed by scheduled monitoring.

(2) Performance option. The employer shall assess the 8-hour TWA exposure for each employee on the basis of any combination of air monitoring data or objective data sufficient to accurately characterize employee exposures to respirable crystalline silica. Performance option does not apply to high-exposure trigger tasks; these tasks shall be assessed by scheduled monitoring.

(3) Scheduled monitoring option. (A) The employer shall perform initial monitoring to assess the 8-hour TWA exposure for each employee on the basis of one or more personal breathing zone air samples that reflect the exposures of employees on each shift, for each job classification, in each work area. Where several employees perform the same tasks on the same shift, on the same material and in the same work area, the employer may sample a representative fraction of these employees in order to meet this requirement. In representative sampling, the employer shall sample the employee(s) who are expected to have the highest exposure to respirable crystalline silica.

(B) If initial monitoring indicates that employee exposures are below the action level, the employer may discontinue monitoring for those employees whose exposures are represented by such monitoring. However, monitoring shall not be discontinued for high-

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exposure trigger tasks, which shall be monitored at least every 12 months or more frequently as required in this section.

(C) Where the most recent exposure monitoring indicates that employee exposures are at or above the action level but at or below the PEL, the employer shall repeat such monitoring within six months of the most recent monitoring.

(D) Where the most recent exposure monitoring indicates that employee exposures are above the PEL, the employer shall repeat such monitoring within three months of the most recent monitoring.

(E) Where the most recent (non-initial) exposure monitoring indicates that employee exposures are below the action level, the employer shall repeat such monitoring within six months of the most recent monitoring until two consecutive measurements, taken 7 or more days apart, are below the action level, at which time the employer may discontinue monitoring for those employees whose exposures are represented by such monitoring, except as otherwise provided in the reassessment of exposures. However, monitoring shall not be discontinued for high-exposure trigger tasks, which shall be monitored at least every 12 months or more frequently as required.

(4) Reassessment of exposures. The employer shall reassess exposures whenever a change in the production, process, control equipment, personnel, or work practices may reasonably be expected to result in new or additional exposures at or above the action level, or when the employer has any reason to believe that new or additional exposures at or above the action level have occurred.

(5) Methods of sample analysis. The employer shall ensure that all samples taken to satisfy the monitoring requirements are evaluated by a laboratory that analyzes air samples for respirable crystalline silica in accordance with the procedures in Appendix A to this section.

(6) Employee notification of assessment results.

(A) Within 15 working days after completing an exposure assessment in accordance with subsection (d), the employer shall individually notify each affected employee in writing of the results of that assessment or post the results in an appropriate location accessible to all affected employees.

(B) Whenever an exposure assessment indicates that employee exposure is above the PEL, the employer shall describe in the written notification the corrective action being taken to reduce employee exposure to or below the PEL.

(7) Observation of monitoring.

(A) Where air monitoring is performed to comply with the requirements of this section, the employer shall provide affected employees or their designated representatives an opportunity to observe any monitoring of employee exposure to respirable crystalline silica.

(B) When observation of monitoring requires entry into an area where the use of protective clothing or equipment is required for any workplace hazard, the employer shall provide the observer with protective clothing and equipment at no cost and shall ensure that the observer uses such clothing and equipment.

Monitoring of substance concentrations in air at the workplace may be necessary to ensure compliance with official exposure limit values and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. For further information contact the supplier or the competent authorities.

**Additional information:**

[Per the Emergency Temporary Standard (ETS) issued by the California Division of Occupational Safety and Health (Cal/OSHA) for respirable crystalline silica (RCS)] - (D) Prohibitions:

The following practices are prohibited for high-exposure trigger tasks, regardless of exposure levels.

1. Any use of compressed air:
  - a. On waste, dust, debris, residue, or other materials that may contain crystalline silica;
  - b. On any surface or clothing or body surface that may contain crystalline silica; and
  - c. To back flush, backwash, or clean water, air, or other types of filters that may contain crystalline silica.
2. Any dry sweeping, shoveling, disturbing, or other dry clean-up of wastes, dusts, debris, or other materials that may contain crystalline silica.
3. Use of employee rotation as a means of reducing employee exposure to respirable crystalline silica.
4. Walking or moving equipment on or through dry dust, debris, residue, or other materials that may contain crystalline silica.

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**Exposure controls****Personal protective equipment:****General protective and hygienic measures:**

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
If exposed or concerned: Get medical advise/attention.

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**Breathing equipment:**

When employees perform high-exposure trigger tasks or work within a regulated area where high-risk exposure tasks occur, the employer shall provide, and shall ensure that employees properly use [per the Emergency Temporary Standard (ETS) issued by the California Division of Occupational Safety and Health (Cal/OSHA) for respirable crystalline silica (RCS)]:

(A) full face, tight-fitting powered-air purifying respirator (PAPR) or a respirator providing equal or greater protection equipped with a HEPA, N100, R100, or P100 filter. For artificial stone, a HEPA, N100, R100, or P100 filter and organic vapor cartridge shall be used.

(EXCEPTION 1: The organic vapor cartridge may be omitted where the employer demonstrates that there are no exposures over the PEL for any organic compound known to be present in the artificial stone, based on information provided in the manufacturer's safety data sheet.

EXCEPTION 2: The employer may provide employees with a loose-fitting PAPR, a full facepiece air-purifying respirator, or another respirator providing equal or greater protection where the employer demonstrates that employee exposures to respirable crystalline silica are continuously maintained below the action level through representative air sampling conducted at least once every six months. This exception does not apply if the PLHCP or specialist recommends use of a full face, tight-fitting PAPR or other more protective respirator.)

(B) A full face, tight-fitting supplied-air respirator in pressure-demand or other positive pressure mode for any employees known to the employer to be diagnosed with confirmed silicosis, or who meet the definition of suspected silicosis, or whenever the PLHCP or specialist recommends use of a supplied-air respirator. The air source for the supplied-air respirator shall be located outside the regulated area and in an area that is free of respirable crystalline silica and other airborne contaminants.

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**Protection of hands:**

**Material of gloves** Gloves impervious to dust or vapor to minimize skin contact.

**Penetration time of glove material**

The exact break through time should be determined by the manufacturer of the protective gloves and should be observed.

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**Eye protection:** Safety glasses with side shields, unless a full-face respirator is worn.

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**Body protection:** Remove and wash contaminated clothing before reuse.

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**9 Physical and chemical properties****Information on basic physical and chemical properties****General Information****Appearance:**

<b>Form:</b>	Engineered stone
<b>Color:</b>	Various colors
<b>Odor:</b>	Odorless

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<b>Odor threshold:</b>	Not determined.
<b>pH-value:</b>	Not Applicable
<b>Change in condition</b>	
<b>Melting point/Melting range:</b>	No data available.
<b>Boiling point/Boiling range:</b>	No data available.
<b>Flash point:</b>	490 °C (914 °F)
<b>Flammability:</b>	Not determined.
<b>Auto igniting:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Ignition temperature:</b>	>490 °C (>914 °F)
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Oxidizing properties:</b>	No data available.
<b>Vapor pressure:</b>	Not applicable.
<b>Specific Gravity</b>	2.4
<b>Density:</b>	Not determined.
<b>Relative density:</b>	No data available.
<b>Vapour density:</b>	Not applicable.
<b>Evaporation rate:</b>	Not applicable.
<b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Insoluble.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
<b>Other information</b>	No further relevant information available.

**10 Stability and reactivity****Reactivity** Not reactive under normal conditions.**Chemical stability** Stable under normal conditions.**Possibility of hazardous reactions** No dangerous reactions known.**Conditions to avoid**

This product is incompatible with hydrofluoric acid. Silica will dissolve in hydrofluoric acid and produce the corrosive gas silicon tetra fluoride.

**Incompatible materials:** Hydrofluoric acid.**Hazardous decomposition products:**

During decomposition various hydrocarbons, carbon dioxide, carbon monoxide fumes and water can be released.

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**Product name: Pentalquartz****11 Toxicological information****Information on toxicological effects**

No primary route of exposure 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 toxicity:**

**LD/LC50 values:** Based on available data, the classification criteria are not met.

**Skin Corrosion/Irritation:** Based on available data, the classification criteria are not met.

**Serious eye damage/irritation:** Based on available data, the classification criteria are not met.

**Sensitization:** Based on available data, the classification criteria are not met.

**Other information (about experimental toxicology):**

Acute effects:

Inhalation (Human): 0.3 mg/cubic meter/10 Y

LC Lo: Inhalation (Human): 16mppcf/8H/17.9 Y

TC Lo: Intermittent, focal fibrosis, pneumoconiosis, cough, dyspnoea

Inhalation (rat) TC Lo: 5.0 mg/cubic meter/6 H/71W Intermittent – Liver Tumors.

**Additional toxicological information:****Carcinogenic categories**

<b>IARC (International Agency for Research on Cancer)</b>		
CAS: 14808-60-7	Crystalline Silica (quartz)	1
<b>NTP (National Toxicology Program)</b>		
CAS: 14808-60-7	Crystalline Silica (quartz)	K
<b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>		
None of the ingredients is listed.		

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**

Carcinogenicity 1A

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** May cause cancer.

**Reproductive toxicity:** Based on available data, the classification criteria are not met.

**STOT-single exposure:** May cause respiratory irritation.

**STOT-repeated exposure:**

Causes damage to organs through prolonged or repeated exposure (Respiratory system).

Prolonged and/or massive inhalation of crystalline silica can cause pulmonary fibrosis and pneumoconiosis and silicosis, as well as a worsening of other pulmonary diseases (bronchitis, emphysema, etc). The main symptom of silicosis is the loss of pulmonary capacity. People with silicosis have a greater risk of getting lung cancer.

**Aspiration hazard:** Based on available data, the classification criteria are not met.

**12 Ecological information****Toxicity**

**Aquatic toxicity:** No relevant information available.

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**Product name: Pentalquartz****Persistence and degradability** No relevant information available.**Bioaccumulative potential** No relevant information available.**Mobility in soil** No relevant information available.**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**Other adverse effects** No relevant information available.**13 Disposal considerations****Waste treatment methods****Recommendation:**

Wastes, dusts, residues, debris, or other materials that are generated from high exposure trigger tasks or that otherwise contain or are contaminated with respirable crystalline silica shall be promptly and properly cleaned up and placed into leak-tight containers, bags, or equivalent.

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Uncleaned packagings:**

**Recommendation:** Disposal must be made according to official regulations.

**14 Transport information****UN-Number**

DOT, IMDG, IATA Not applicable

**UN proper shipping name**

DOT, IMDG, IATA Not applicable

**Transport hazard class(es)****DOT, IMDG, IATA**

Class Not applicable

**Packing group**

DOT, IMDG, IATA Not applicable

**Environmental hazards:** Not applicable.

**Special precautions for user** Not applicable.

**UN "Model Regulation":** Not applicable

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**Product name: Pentalquartz****15 Regulatory information****TSCA (Toxic Substances Control Act):**

All ingredients are listed on the TSCA Active inventory or exempt.

**Hazardous Air Pollutants**

None of the ingredients is listed.

**Proposition 65****Chemicals known to cause cancer:**

WARNING: This product can expose you to chemicals including crystalline silica (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](http://www.P65Warnings.ca.gov).

CAS: 14808-60-7 | Crystalline Silica (quartz)

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

**OSHA-Ca (Occupational Safety & Health Administration)**

Effective 29 December 2023, companies must comply with certain work practices and engineering controls for high-exposure trigger tasks meant to protect workers from silicosis. High exposure trigger task means breaking, crushing, machining, or otherwise working artificial stone that contains more than 0.1 percent by weight crystalline silica or natural stone that contains more than 10 percent by weight crystalline silica.

**National regulations:**

**Additional classification according to Decree on Hazardous Materials:** Carcinogenic hazardous material group III (dangerous).

**16 Other information**

The information in this Safety Data Sheet is based on data available at the date of preparation of the document, which, to the best of our knowledge, was accurate and reliable. However, no warranty, implied or expressed, is given in relation to the accuracy of these data or the results to be obtained from the use thereof. The provision of this information should not be construed as a recommendation to use any of our products in violation of any patent rights or in breach of any statute or regulation. Users are advised to make their own determination as to the suitability of this information in relation to their particular purposes and specific circumstances. Since the information contained in this document may be applied under conditions beyond our control, we can accept no responsibility for any loss or damage caused by any person acting or refraining from any action as a result of this information.

**Relevant phrases**

“Respirable Crystalline Silica” means quartz, cristobalite, and/or tridymite contained in airborne particles that are determined to be respirable by a sampling device designed to meet the characteristics for respirable-particle-size-selective samplers specified in the International Organization for Standardization (ISO) 7708:1995: Air Quality - Particle Size Fraction Definitions for Health-Related Sampling.

“Regulated Area” means an area, demarcated by the employer, where an employee's exposure to airborne concentrations of respirable crystalline silica exceeds, or can reasonably be expected to exceed, the permissible exposure limit (PEL). All high-exposure trigger tasks shall be conducted within a regulated area regardless of employee exposures, exposure assessments, or other objective

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data.

“High-Exposure Trigger Task” means machining, crushing, cutting, drilling, abrading, abrasive blasting, grinding, chiseling, carving, gouging, polishing, buffing, fracturing, intentional breaking, or intentional chipping of artificial stone that contains more than 0.1 percent by weight crystalline silica, or natural stone that contains more than 10 percent by weight crystalline silica. High-exposure trigger tasks also includes clean up, disturbing, or handling of wastes, dusts, residues, debris, or other materials created during the above listed tasks.

“Wet Methods” means effectively suppressing dust by one of the methods listed below. Regardless of the method used, water must cover the entire surface of the work object where a tool, equipment, or machine contacts the work object.

(A) Applying a constant, continuous, and appropriate volume of running water directly onto the surface of the work object. When water flow is integrated with a tool, machine, or equipment, water flow rates shall equal or exceed manufacturer recommendations and specifications to ensure effective dust suppression.

(B) Submersing the work object underwater.

(C) Water jet cutting (use of high pressure water to cut material).

**Training hints**

Refer to supporting documents on the website at [arcsurfaces.com](http://arcsurfaces.com) – Silica Warning Label, Fabrication and Installation Manual (English & Spanish).

The product should only be handled by persons, who were informed sufficiently about the nature of the product and about the necessary safety precautions.

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**Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Carcinogenicity 1A: Carcinogenicity – Category 1A

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

Specific Target Organ Toxicity - Repeated Exposure 1: Specific target organ toxicity (repeated exposure) – Category 1

**Sources** Data arise from reference works and literature.