

Safety Data Sheet acc. to OSHA HCS

Printing date 10/07/2019

Rev. n. 1

Reviewed on 10/07/2019

1 Identification

· **Product identifier**

· **Trade name:** **PORCELAIN TILES, PAVERS AND PORCELAIN TILE PANELS/SLABS**

· **Application of the substance / the mixture**

Ceramic tile

This document provides information about the handling and use of the product. The purpose of this guide is to provide employees general information and guidance on how to handle the product during all activities, to promote and improve working conditions and to minimize potential risks through the implementation of the risk management measures proposed in this document.

Because of the product characteristics, employees should be aware that during cutting and/or polishing, they may come in contact with respirable airborne crystalline silica (quartz). Prolonged or massive inhalation of respirable crystalline silica may cause pulmonary fibrosis, commonly known as silicosis. The main symptoms include coughing and difficulty breathing. Therefore we recommend wet cutting and polishing to reduce the exposure to respirable crystalline silica dust to a minimum.

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Ceramiche Keope - divison of Ceramiche Atlas Concorde
Via Statale 467, n.21, 42013 - Casalgrande (RE) - Italy
Phone +39 0522 997511
www.keope.com

· **Information department:**

Ceramiche Keope - divison of Ceramiche Atlas Concorde
Email: info@keope.com

· **Emergency telephone number:** Centro Antiveleni - Ospedale Niguarda Milano - Tel. +39 02 66101029

2 Hazard(s) identification

· **Classification of the substance or mixture**

The product is not classified, according to the Globally Harmonized System (GHS).

· **Additional information:** Not applicable for intact tiles

· **Label elements**

- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

· **Other hazards**

If the product is dry cut/sanded or altered in such a way that excessive and/or significant particulates and/or dusts may be generated, exposure may aggravate pre-existing eye, skin, or respiratory conditions. We recommend wet cutting or the score and snap method during the installation process. Do not dry cut using power tools during the installation process. Improper installation techniques could expose installer to harmful silica dust. Contains crystalline silica (quartz). When exposed to high temperatures, free quartz can change crystal structure to form tridymite (above 870°C.) or cristobalite (above 1470°C.) which have greater health hazards than quartz due to their more fibrogenic characteristics. Manufacturers who crush, grind or cut ceramic bodies fired to high temperatures should recognize the possible presence of tridymite and/or cristobalite.

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Tiles and boxes, if not grasped or handled correctly, can accidentally fall causing crushing of both hands and feet.

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:**

Tile products are compounds of predominantly clays, kaolin, feldspar, silica sand and other natural occurring minerals that have been mixed with water and fired in a high temperature kiln.

· **Dangerous components:**

CAS: 68476-25-5	Feldspar	30-50%
CAS: 1332-58-7	Kaolin	25-50%
CAS: 14808-60-7	Quartz (SiO ₂)	10-20%

4 First-aid measures

· **Description of first aid measures**

· **General information:**

First Aid Measures are applicable only to the dust resulting from crushing, grinding or sawing of tiles. Intact tiles pose no eye or inhalation hazards.

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** If skin irritation continues, consult a doctor.

· **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Rinse out mouth with water.

Do not induce vomiting.

· **Information for doctor:**

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

No acute effects are known from exposure to intact tiles. Working with broken or cut tile 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 drilling the tile or during the removal of tile surfaces. 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 tile dust. Signs such as labored breathing and early fatigue may indicate silicosis; however, these same symptoms can arise from many other causes.

No chronic effects are known from exposure to intact tiles. Long-term, continual exposure to respirable crystalline silica at or above allowable 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.

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- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Use fire fighting measures that suit the environment.
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Avoid creating dust wherever possible.
- **Environmental precautions:**
Clean up and collect spilled material. Avoid breathing particulates.
If particulates are involved, evacuate the area of unprotected personnel during cleanup and wear an appropriate respirator.
- **Methods and material for containment and cleaning up:**
Use wet sweeping compound or water to minimize particulates.
Pick up mechanically.
- **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.
- **Protective Action Criteria for Chemicals**

· PAC-1:		
CAS: 14808-60-7	Quartz (SiO ₂)	0.075 mg/m ³
· PAC-2:		
CAS: 14808-60-7	Quartz (SiO ₂)	33 mg/m ³
· PAC-3:		
CAS: 14808-60-7	Quartz (SiO ₂)	200 mg/m ³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
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
Tiles and boxes, if not grasped or handled correctly, can accidentally fall causing crushing of both hands and feet.
- **Information about protection against explosions and fires:** The product is not flammable.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in clean and dry conditions
- **Information about storage in one common storage facility:** Do not store together with acids.

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- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
 - **Components with limit values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

CAS: 1332-58-7 Kaolin	
PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	Long-term value: 2* mg/m ³ E; as respirable fraction
CAS: 14808-60-7 Quartz (SiO₂)	
PEL	Long-term value: 0.05* mg/m ³ *resp. dust; 30mg/m ³ /%SiO ₂ +2
REL	Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m ³ *as respirable fraction
Particulates Not Otherwise Classified (PNOC)	
TLV	Long-term value: 10*, 3** mg/m ³ * inhalable fraction , ** respirable fraction

- **Regulatory information**
 - PEL: Guide to Occupational Exposure Values (OSHA PELs)
 - REL: Guide to Occupational Exposure Values (NIOSH RELs)
 - TLV: Guide to Occupational Exposure Values (ACGIH)
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
 - **Personal protective equipment:**
 - **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Avoid creating airborne dust while working
Do not eat, drink, smoke or sniff while working.
Wash hands before breaks and at the end of work.
Immediately remove all soiled and contaminated clothing.
Always provide effective general and, when necessary, local exhaust ventilation to draw dust away from workers to prevent routine inhalation.
Ventilation must be adequate to maintain the ambient workplace atmosphere below the permissible exposure limits.
Avoid contact with the eyes and skin.
 - **Breathing equipment:**



If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

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· **Protection of hands:**



Cotton or leather work gloves should be worn when cutting this product to minimize skin exposure to dust and/or cuts.

· **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.

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

- **Form:** Solid
- **Color:** Different according to coloring
- **Odor:** Odorless
- **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** ≥2200 °C (≥3,992 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

- **Lower:** Not determined.
- **Upper:** Not determined.

· **Vapor pressure:** Not applicable.

· **Density at 20 °C (68 °F):** 2.4-2.7 g/cm³ (20.028-22.532 lbs/gal)

- **Relative density** Not determined.
- **Vapor density** Not determined.
- **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

· **Water:** Insoluble.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

- **Dynamic:** Not determined.
- **Kinematic:** Not determined.

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· Solvent content:	
· Solids content:	100 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
 - **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Protect from heat and direct sunlight.
- **Incompatible materials:** Keep away from: strong acids, strong bases and oxidation agents.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:		
CAS: 14808-60-7 Quartz (SiO₂)		
Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)

- **Primary irritant effect:**
 - **on the skin:** Based on available data, the classification criteria are not met.
 - **on the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
The product is not subject to classification according to internally approved calculation methods for preparations:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)		
CAS: 14808-60-7	Quartz (SiO ₂)	1

· NTP (National Toxicology Program)		
CAS: 14808-60-7	Quartz (SiO ₂)	K

· OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.

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- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
 - **Bioaccumulative potential** No further relevant information available.
 - **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
 - **General notes:** Not hazardous for water.
- **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
 - **Recommendation:** Disposal must be made according to official regulations.
- **Uncleaned packagings:**
 - **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number · DOT, ADR, IMDG, IATA	Void
· UN proper shipping name · DOT, ADR, IMDG, IATA	Void
· Transport hazard class(es) · DOT, ADR, ADN, IMDG, IATA · Class	Void
· Packing group · DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Void

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
 - **Sara**

· Section 355 (extremely hazardous substances):
None of the ingredients is listed.

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· Section 313 (Specific toxic chemical listings):		
None of the ingredients is listed.		
· TSCA (Toxic Substances Control Act):		
All components have the value ACTIVE.		
· Hazardous Air Pollutants		
None of the ingredients is listed.		
· Proposition 65		
· Chemicals known to cause cancer:		
CAS: 14808-60-7	Quartz (SiO ₂)	
· 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.		
· Carcinogenic categories		
· EPA (Environmental Protection Agency)		
None of the ingredients is listed.		
· TLV (Threshold Limit Value established by ACGIH)		
CAS: 1332-58-7	Kaolin	A4
CAS: 14808-60-7	Quartz (SiO ₂)	A2
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
CAS: 14808-60-7	Quartz (SiO ₂)	
· GHS label elements Void		
· Hazard pictograms Void		
· Signal word Void		
· Hazard statements Void		
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.		

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The information contained within this Safety Data Sheet is believed to be accurate and have been compiled from sources believed to be reliable. It is offered for consideration, investigation and verification. It is the users responsibility to follow the guidelines as outlined within this SDS. The user assumes all risk of use, storage and handling in compliance with applicable laws and regulations.

· Date of preparation / last revision

10/07/2019 / -

Prepared by Studio Alfa SpA

· Abbreviations and acronyms:

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

CLP: Classification, Labelling and Packaging

TLV: Threshold Limit Value

TLV-TWA: Threshold Limit Value - Time Weighted Average

TLV-STEL: Threshold Limit Value - Short Term Exposure Limit

IOELV: Indicative Occupational Exposure Limit Value

BEI: Biological Exposure Indices

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*LD50: Lethal Dose, 50 percent**LC50: Lethal Concentration, in air, 50 percent**LC50: Lethal Concentration, 50 percent**EC50: Effective Concentration, 50 percent**ErC50: Effective Concentration, 50 percent, reduction of growth rate**Kow: Octanol-Water partition coefficient**BCF: BioConcentration Factor**ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**DOT: US Department of Transportation**IATA: International Air Transport Association**ACGIH: American Conference of Governmental Industrial Hygienists**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)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**NIOSH: National Institute for Occupational Safety**OSHA: Occupational Safety & Health**TLV: Threshold Limit Value**PEL: Permissible Exposure Limit**REL: Recommended Exposure Limit**WGK: Wassergefährdungsklasse - Water hazard class, Germany*