

According to EC Regulation 1907/2006 (REACH) the ceramic product (ceramic tiles, blocks, partitions and clay bricks) is classified as an "Article" and is therefore **not subject to the obligation to prepare the safety data sheet (SDS)**. However, this document **voluntarily** provides data on the composition and safety information according to a format inspired, as far as relevant, by the SDS

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Trade Name: PORCELAIN STONEWARE TILE FOR INTERIOR AND EXTERIOR USE

CAS No.: Not applicable

EC No.: Not applicable

Registration No.: Not applicable

Registration No. without reference to individual declarant: Not applicable

Index 67/548/EEC: Not applicable

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Creation of flooring, wall tiling, decorations

Uses advised against: This product must not be used in applications different from those recommended in this document, without prior advice from the supplier.

1.3. Data relating to the supplier of the substance or mixture

Manufacturer/Supplier: Due G S.r.l.
Via Emilia Ponente, 1000, int.3
48014 Castel Bolognese (RA)

Telephone: + 39 0546652111

Mail: info@duegceramiche.com

1.4. Emergency telephone number

Poison Information Center Milan: +39 02 66101029

Poison Information Center Bologna: +39 051 6478955

Poison Information Center Rome: +39 06 3054343

Australian National Poisons Information Center: 131126

1.5. Other Information: The product is exempt from the obligation for registration according to the REACH regulation in compliance with Article 2(7)(b).

2. HAZARDS IDENTIFICATION

There is no proof or indication that the whole, finished product (definable as an "article" pursuant to Regulation EC 1907/2006) has any risks according to Regulation EC No1272/2008 (CLP).

In the case of the breakage of the article or its processing involving crushing, breakage, cutting, sanding or any other process which could lead to the release of dusts traceable to the matrix of the article, it may generate crystalline silica powder. The breathable fraction of crystalline silica, particularly during prolonged exposures and/or exposures to high concentrations, may lead to lung damage or illnesses, such as silicosis. The hazard assessment refers to this specific case.

2.1. Classification of the substance or mixture

The fired ceramic product is odourless, stable, non-flammable and does not present health risks. Does not release substances (fumes/gases/vapours/dusts) after installation. In the decommissioning phase it is not considered hazardous waste.

The whole, finished product is free from hazardous classification according to Regulation (EC) No. 1272/2008, as amended, on classification, labeling and packaging of substances and mixtures.

Regulation (EC) No. 1272/2008 (CLP)	
Hazard classes/Hazard categories	Hazard statement
None	None

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 CLP

Pictogram(s): None
Hazard instructions: None
CLP hazard statements: None

2.3. Other hazards

Health risks: Porcelain stoneware do not emit hazardous substances after installation: during the firing process stable chemical compounds are formed, and therefore porcelain stoneware slabs are not considered hazardous for the health.

During activities such as cutting, polishing, perforation, etc., of porcelain stoneware, dust containing crystalline silica may be formed.

Inhaling this type of dust is hazardous for the health and must be avoided.

To limit dust generation, 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 dust.

Prevent dispersion/inhaling of dust by means of suction systems or personal protection equipment (PPE).

PPE:

Repeated exposure, prolonged over time and/or massive inhaling of the breathable fraction may have an effect on the lungs causing fibrosis (silicosis).

Prolonged exposure over time to the finer fraction suspended in air may cause irritation of the cornea.

To reduce the production of dust when cutting, the score-and-snap method is recommended.

An electric wet tile cutter performs a straight and precise cut in a very short time without releasing dust into the environment.

An angle grinder can be used to cut any desired shape and meet design specifications. To reduce the quantity of dust released, be sure to wet the tile frequently, either manually or using devices integrated with the grinder.

Avoid dry cutting with power tools.

The literature on emissions generated when cutting cement products reveals that the use of a wet saw reduces respirable crystalline dust by 99% compared to the use of a power saw without water control¹. Other studies show that respirable crystalline silica emissions are about 50 times lower when using the score-and-snap method than when using wet power tools and are about 1,000 times lower than when cutting with a power saw without dust suppression devices².

¹ Charles RV, Sheehy J, Feng HA, Sieber WK; "Laboratory evaluation to reduce respirable crystalline silica dust when cutting concrete roofing tiles using a masonry saw", *Journal of Occupational and Environmental Hygiene*, 2010, 7: 245-251.

² "Human Health Risk Assessment for Proposition 65: Crystalline Silica"; *Environmental Health & Engineering, Inc. (EH&E)*, June 2018.

Safety hazards: The product does not present hazards for safety if used in compliance with the normal precautions for use.

Environmental hazards: Not classified as hazardous for the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS


Product identification: Porcelain stoneware comprise a mixture composed mainly of natural clays and other natural mineral substances.

The mixture is created with natural raw materials, with humidity and appropriate granulometric distribution for the subsequent pressing stage.

After mixing with water and pressing of the tile, it is fired at high temperatures.


During the firing process a particularly stable crystalline structure is formed, which incorporates the individual chemical elements.

3.1. Mixtures

Name:	N.CAS	Concentration %	Risk phrases	Pictograms
Quartz / crystalline silica	238-878-4 / 14808-60-7	31.3	H372 Causes damage to organs through prolonged or repeated exposure STOT RE 1	
Mullite	1302-93-8	12.5		
Mineral Substances				
Rutile	68476-25-5	0.2		
Albite	68476-25-5	0.7		
Glass	65997-17-3	55.3		

Even if the CAS 65997-17-3 can be adjusted as a member of the index number 650-016-00-2 (mineral wool), the substance of this product described by this CAS number is not fibrous and consequently is not associated with a classification of carcinogen.

3.1.1 Components in accordance with Regulation (EC) No. 1272/2008

Name:	N.CAS	Concentration %	Risk phrases	Pictograms
Quartz / crystalline silica	238-878-4/ 14808-60-7	31.3	H372 Causes damage to organs through prolonged or repeated exposure STOT RE 1	

For the full text of the H- and P-phrases see section 16

3.1.2 The tile contains the following major compounds

Compound	N.CAS	Weight % (*)
SiO ₂	14808-60-7	71.6
Al ₂ O ₃	1344-28-1	19.1
Fe ₂ O ₃	1309-37-1	1.42
TiO ₂	1317-80-2	0.49
CaO	1305-78-8	0.61
MgO	1309-48-4	0.36
Na ₂ O	1313-59-3	1.49
K ₂ O	2136-45-7	4.50
ZrO ₂	1314-23-4	0.11

(*) average value

4. FIRST AID MEASURES

NB: this section applies exclusively to activities of cutting, polishing, etc.

4.1. Description of first aid measures

Skin contact: Rinse, and subsequently wash the skin with water and soap.

Eye contact: Wash the eyes for several minutes using copious amounts of water, keeping eyelids open.

Ingestion: In the unlikely event that ingestion takes place, have the subject drink water

Inhalation: Remove the subject from the area of exposure and have the subject breathe fresh air.

4.2. Most important symptoms and effects, both acute and delayed

Irritation of the respiratory tract.

Eye irritation.

In the case of persistent irritation consult a doctor.

4.3. Indication of any immediate medical attention and special treatment needed

In the case of accident or illness consult a doctor immediately and if possible show this safety data sheet.

5. FIREFIGHTING MEASURES

The product is an inert and fireproof material, with high mechanical and chemical resistance, which remains unchanged over time. In the event of fire, the product does not release harmful substances for humans or the environment, because it does not burn and does not degrade.

The product is classified as Class A1 in accordance with the EN 13501-1:2019 standard.

5.1. Extinguishing media

Suitable extinguishing media: Water, CO₂, chemical dust, foam, sand or inert gases.

Unsuitable extinguishing media that must not be used for safety reasons: None.

5.2. Special hazards arising from the substance or mixture

None.

5.3. Advice for firefighters

None in particular.

6. ACCIDENTAL RELEASE MEASURES

NB: this section applies exclusively to activities of cutting, polishing, etc.

6.1. Personal precautions, protective equipment and emergency procedures

In the case of prolonged exposure or a high level of suspended dust, wear personal protection devices for the respiratory tract.

6.2. Environmental precautions

If appropriate dampen the material to limit dust dispersion.

6.3. Methods and material for containment and cleaning up

Collect the mixture with suction or other mechanical means.

Place the mixture in covered containers.

6.4. Reference to other sections

See also Sections 8 and 13.

7. HANDLING AND STORAGE**7.1. Precautions for safe handling.**

No special precautions are required for handling and laying the tiles, except for the normal PPE in use for the work activities (gloves, safety shoes).

For pack weighing more than 25 Kg or when handling large size products, it is recommended to use mechanical load handling tools or to have two or more operators move the load and/or to observe the provisions of technical standards (ISO 11228-1:2022) and current legislation (in Italy Legislative Decree 81/08 as amended and supplemented).

The maximum load-bearing capacities of the storage facilities must be observed when storing the product.

Storage life is unlimited.

For cutting, polishing etc. activities safety glasses and respiratory tract protection devices are also necessary.

Wet- cutting systems are preferable to dry-cutting.

7.2. Conditions for safe storage, including any incompatibilities

No particular precautions are required.

7.3. Specific end uses:

No specific technical measures or particular precautions are required.

8. EXPOSURE CONTROL/PERSONAL PROTECTION**8.1. Control parameters**

NB: this section applies exclusively to activities of cutting, polishing, etc.

Occupational exposure limits

The table below provides a schematic summary of the exposure values proposed by the main international bodies.

	Directive (EU) 2017/2398	ACGIH	OSHA	NIOSH	Australia
Substance	Respirable crystalline silica dust	Quartz and cristobalite	Quartz, cristobalite and/or tridymite	Quartz	Crystalline silica
Exposure limit value *	0.1 mg/m ³	N.a.	0.05 mg/m ³	0.05 mg/m ³	0.05 mg/m ³
Threshold value *	N.a.	0.025 mg/m ³	0.025 mg/m ³	N.a.	N.a.

* Measured or calculated in relation to a reference period of 8 hours.

8.2. Exposure controls

8.2.1 General information.

Performing the machining operations as recommended in point 2 above significantly reduces dust production. Dry cutting is the only operation liable to produce dust and consequently lead to the risk of exposure to respirable crystalline silica.

Wash hands after work and before breaks.

Do not eat or drink during handling of the mixture.

8.2.2 Occupational exposure controls

Eye protection: Use of protective glasses recommended. Required in dusty environments and to avoid injury caused by fragments during cutting.

Hand protection: Use of protective work gloves recommended. The product may have sharp edges, so cut-proof gloves be worn during machining/handling operations.

Skin protection: Use of protective workwear recommended; operate according to best work practices.

Respiratory protection: In the absence of adequate ventilation, use suitable personal respiratory protection devices with filter for inert particles (P3).

Safety footwear: Safety footwear should be worn when handling/machining the product

The personal protection information provided in this section is based on general information for standard use and under normal conditions (wet cutting or the score-and-snap method). In the event of special or unusual uses or conditions, the assistance of an industrial hygienist or other qualified professional should be sought for the use of appropriate protection equipment.

8.2.3 Environmental exposure controls

Provide appropriate suction and filtering at the points where the mixture may be dispersed into the environment since it can release inhalable, breathable dust.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties.

Appearance: solid

Odour: odourless

pH: not applicable

Melting point/range: > 1200°C

Boiling point/range: not applicable

Flash point: not applicable

Flammability: non-flammable

Oxidising properties: non-oxidising

Explosive properties: non-explosive

Density: 2.4-2.5 g/cm³

Water solubility: insoluble.

9.2. Other information

Not applicable.

10. STABILITY AND REACTIVITY

10.1. Reactivity

The mixture is NON REACTIVE in normal conditions of use.

10.2. Chemical stability

The mixture is STABLE in normal conditions of use.

10.3. Possibility of hazardous reactions

The mixture DOES NOT CAUSE HAZARDOUS REACTIONS in normal conditions of use.

10.4. Conditions to avoid

The mixture is STABLE in normal conditions of use.

Avoid contact with hydrofluoric acid (surface damage/discoloration may occur)

10.5. Incompatible materials

No particular incompatibility.

Avoid contact with hydrofluoric acid (surface damage/discoloration may occur)

10.6. Decomposition products

The formation of hazardous decomposition products is not expected in normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION

NB: this section applies exclusively to activities of cutting, polishing, etc.

Information on toxicological effects

Dry cutting is the only operation liable to produce dust and consequently lead to the risk of exposure to respirable crystalline silica.

Repeated exposure, prolonged over time and/or a massive inhalation of the breathable fraction of dust containing quartz may cause pulmonary fibrosis (silicosis) due to the action of free crystalline silica particles on lung tissue.

Only a small fraction of the quartz generated during cutting can be classified as Respirable Crystalline Silica. This limited fraction must be taken into account in order to assess the possible risks of exposure to the health of the operator and to adopt the relevant protection systems.

For respirable crystalline silica powder, the Occupational Safety and Health Administration (OSHA) defines the action level as 25 µg/m³ as a concentration of respirable crystalline silica in the air calculated as a time-weighted average over an 8-hour workday and a 40-hour workweek.

A study conducted in 2018³ shows that the potential harmful effects associated with exposure to respirable crystalline silica generated during cutting operations are 75 times lower than the threshold of 1 in 100,000 set by the Californian law Proposition 65⁴, better known as the "Safe Drinking Water and Toxic Enforcement Act of 1986".

³ Human Health Risk Assessment for Proposition 65: Crystalline Silica; Environmental Health & Engineering, Inc. (EH&E), June 2018.

⁴ <https://oehha.ca.gov/proposition-65>

Bases for assessment: The information supplied is based on product data, on knowledge of the components and on the toxicology of similar products.

Probable ways of exposure: Inhalation is the primary way of exposure.

Acute toxicity, by oral route: Not applicable.

Acute toxicity, by dermal route: Not applicable.

Acute toxicity, by inhalation: Not applicable.

Skin corrosion/irritation: Not irritant for the skin.

Serious eye damage/irritation: May cause mechanical irritation for the eyes.

Respiratory tract irritation: Inhalation of dust may cause irritation to the respiratory tract.

Sensitisation to the respiratory tract or skin: Data unavailable.

Germ cell mutagenicity: Data unavailable.

Carcinogenicity: Category 1A

Reproductive and developmental toxicity: Data unavailable.

Specific target organ toxicity – single exposure: Category 3 – Respiratory tract irritation

Specific target organ toxicity – repeated exposure: Category 1A – Respiratory effects

12. ECOLOGICAL INFORMATION

12.1. Toxicity

NOT TOXIC article.

Use the product according to good working practices, avoiding dispersion in the environment.

12.2. Persistence and degradability

NOT BIODEGRADABLE article.

12.3. Bioaccumulative potential

Not considered significantly bioaccumulative.

12.4. Mobility in soil

The mixture is not significantly soluble.

12.5. Result of PBT and vPvB assessment

There are no risks of persistence, bioaccumulation and toxicity in the substance, and therefore it is not considered PBT or vPvB.

12.6. Other adverse effects

No data available.

13. **DISPOSAL CONSIDERATIONS**

13.1. **Waste treatment methods**

Disposal methods: Disposal must be carried out in compliance with the instructions laid down by Italian Legislative Decree 152/2006 and subsequent modifications and integrations and with the instructions laid down by local and national authorities.

The waste must be disposed of in compliance with prevailing laws, using an authorised waste disposal facility. The competence of the disposal facility must be verified in advance. For handling and measures in the case of accidental dispersion of the waste, the instructions given in Sections 6 and 7 generally apply. Do not disperse in the environment, in wells or water courses.

Disposal of packing material: Packing materials can be recycled. Disposal of packing materials must be carried out after they have been completely emptied. Do not pollute the soil, water or the environment.

14. **TRANSPORT INFORMATION**

NOT HAZARDOUS mixture according to transport regulations.

Transport by road/rail (ADR/RID):

NOT HAZARDOUS mixture according to road and rail transport regulations.

Transport by sea (IMDG code):

NOT HAZARDOUS mixture according to sea transport regulations.

Transport by air (ICAO/IATA):

NOT HAZARDOUS mixture according to air transport regulations.

15. **REGULATORY INFORMATION**

15.1. **Safety, health and environmental regulations/legislation specific for the substance or mixture.**

Classification, packaging and labelling of hazardous substances (Italian Legislative Decree 52/1997 and subsequent modifications).

Classification, packaging and labelling of hazardous mixtures (Italian Legislative Decree 65/2003).

Safeguarding of health and safety in the workplace (Italian Legislative Decree 81/2008 and subsequent modifications).

15.2. **Chemical safety assessment**

No chemical safety assessment has been conducted.

16. **OTHER INFORMATION**

Liability: The information shown in this basic safety sheet has been drawn up to the best of current knowledge and on the basis of information sources currently available.

The user must comply with prevailing regulations and be satisfied as to the updating, suitability and completeness of the information contained here, as it relates to the specific use made of the substance in their own production cycle.

The information constitutes a description of the product in relation to safety and draws the attention of users to possible risks connected with an improper use of the product.

CLP Hazard Statements: None.

Full Text of hazard (H) and warning tips (P) mentioned in the previous sections:

H372: May cause damage to organs through prolonged or repeated exposure STOT RE 1

Note: this risk phrase is linked solely to the exposure of the powders during the laying activity that may require the cuts for the adaptation of the material to the surfaces on which they must be laid.

P260: Do not breathe dust that is generated from the cuts of the material

Recommended restrictions relating to use:

This product must not be used in applications different from those recommended in Section 1, without prior advice from the supplier.

Additional information:

This document contains important information regarding safety in storage, handling and use of the product.

The information shown in this document must be brought to the attention of the person in your organisation who is responsible for hygiene and safety in the work environments.

Distribution of SDS: The information contained in this document must be made available to all those who handle the product.

Further information:

Training: Workers must be informed about the presence of crystalline silica and trained in the proper use and handling of this product as required by prevailing regulations.