

# SAFETY INSTRUCTIONS FOR CERAMIC TILES

Made from mineral raw materials (mostly clays) that have been mixed with water, dried, shaped, and fired in high-temperature ovens. They may have a layer of glaze on their surface that has been fired along with the body. **They are used as building elements to cover surfaces of facades, walls, and floors..**

Manufacturer/company: Halcón Cerámicas S.L.U.

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The information detailed here is based on our knowledge up to the specified date, refers exclusively to the indicated product, and does not constitute a guarantee of particular qualities. It is the user's responsibility to use the product according to the provided recommendations.

## 1. DANGERS

**No adverse effects on health or the environment of intact tiles are known.**

**In some processes of modifying the finished product (cutting, grinding, removal, etc.), dust may be produced that can irritate exposed areas due to its abrasive effect. Any of these processes for modifying the finished product should be carried out taking into account the measures indicated in section 6 of these instructions, minimizing or avoiding the generation of dust.**

The dust released into the atmospheric environment in these operations contains respirable crystalline silica (RCS), the inhalation of which can cause acute or chronic silicosis (nodular fibrosis of the lungs) depending on the amount and duration of exposure. Exposure to RCS is also a risk factor for developing lung cancer. Early symptoms of prolonged exposure to crystalline silica include persistent cough, difficulty breathing, and chest pain.

On December 12, 2017, Directive (EU) 2017/2398 of the European Parliament and of the Council was published, amending Directive 2004/37/EC on the protection of workers from risks related to exposure to carcinogens or mutagens at work. This Directive includes in its Annex I (List of substances, preparations, and processes) "work that involves exposure to respirable crystalline silica dust generated in a work process." Therefore, jobs that involve exposure to dust

respirable crystalline silica falls within the scope of this directive.

The amount of respirable crystalline silica (RCS) contained in the dust that tiles can release during handling is variable, as it depends on their composition and the size of the particles generated (RCS has a particle size of less than 4 µm).

A study conducted in 2019 with 46 tile samples quantified quartz levels between 2.9% and 25% by weight. Cristobalite and tridymite were not detected. (Proposition 65: Crystalline Silica in Ceramic and Glass Tile (prop65))

A preliminary study conducted in 2023 with a battery of 16 ceramic products, using a standardized dry cutting test based on the UNE-EN 1093-3:2008 standard, showed a percentage of crystalline silica between 9% and 30% of the respirable dust generated (Report C234777)

## 2. FIRST AID



### Inhalation of dust:

Move the affected person to fresh air. Administer artificial respiration if necessary. If persistent respiratory symptoms occur, seek medical attention immediately.



### Contact of dust with the eyes:

Remove contact lenses, if worn and easy to do. Open the eyes and rinse them with plenty of water for at least 15 minutes. If irritation persists, seek medical attention.



#### **Ingestion of dust:**

Unlikely route. The product is not toxic by ingestion and is not retained in the intestinal tract. Never induce vomiting..



#### **Contact of dust with the skin:**

Although the product is not toxic upon skin contact, wash with water and soap. In case of a cut, proceed according to its severity and seek medical attention if necessary.

### **3. STORAGE**

Ceramic tiles do not require specific conditions to ensure safe storage nor do they present incompatibilities with other products or materials. However, it is recommended to store the tiles in a dry place protected from excessive moisture to preserve the integrity of the packaging and the product it contains..

### **4. ELIMINATION / VALUATION**

Tile waste is classified as inert materials, so it can be disposed of in an authorized landfill for that purpose in accordance with applicable regulations, or it can be recovered and used for new purposes, such as fill material in roads. However, please inform yourself and comply with the local regulations that apply to waste management.

### **5. TRANSPORT**

Ceramic tiles are considered non-hazardous goods according to international transport criteria by land, sea, and air.

## **6. SAFE HANDLING**

**The described measures refer to processes that involve the generation of dust and/or breaking of tiles, such as cutting, grinding, polishing, or drilling..**

### **GENERAL MEASURES**

Ensure good ventilation in the work area. Avoid the formation and dispersion of environmental dust. It is advisable to use wet working methods that reduce or prevent dust formation. If this cannot be avoided, a localized extraction system should be available or the material should be handled in a closed system. Regularly collect the environmental dust formed using suction mechanisms or wet cleaning.

### **PERSONAL PROTECTION**

#### **During the handling of the tiles.**

Use gloves to avoid possible cuts and abrasions. Safety shoes to prevent possible foot injuries from falling objects..

#### **During processes that generate dust**

Respiratory protection with P3 filters, goggles, and appropriate clothing to prevent exposure to it.

It is advisable to consult with PPE suppliers to determine which are the most suitable based on the job position and dust concentration. It is also recommended to conduct regular inspections of personal protective equipment (PPE) to ensure their optimal condition and functionality.

### **TRAINING**

It is advisable to provide periodic training to workers on the safe handling of ceramic tiles and the proper use of personal protective equipment (PPE).

### **FIRE PREVENTION**

**Ceramic tiles are non-combustible and do not contribute to the fire in case of an incident.**

Adhere to the standard fire protection regulations.

### **PROTECTION FOR THE ENVIRONMENT**

**Purify the possible discharges and emissions** taking into account the applicable limit values. It is advisable to adopt waste management measures that consider the reduction, reuse, and recycling of materials, in order to minimize environmental impact.teniendo en cuenta los valores límite aplicables.

## 7. INFORMATION OF INTEREST

Proposed occupational exposure limit values in Spain by the National Institute for Occupational Safety and Health (INSHT)  
<http://bdlep.inssbt.es/LEP/>

Limit values established by the different institutions in the USA, compiled by the Occupational Safety and Health Administration (OSHA)  
<https://www.osha.gov/dsg/annotated-pels/tablez-1.html>

Safety and Occupational Risk Prevention Guide Source: PROALSO (Professional Association of Tilers/Floor Layers)  
[http://www.proalso.es/images/pdf/M7%20PRL\\_web.pdf](http://www.proalso.es/images/pdf/M7%20PRL_web.pdf)

Guide to good practices for the protection of worker health for the proper handling and use of crystalline silica and products containing it Source: NEPSI (The European Network on Silica)  
<http://www.nepsi.eu/good-practice-guide>

Study conducted with tiles to quantify quartz levels. (Human Health Risk assessment for Proposition 65: Crystalline Silica in Ceramic and Glass Tile). [https://tcnatile.com/wp-content/uploads/2022/08/Human\\_Health\\_Risk\\_Assessment\\_for\\_Proposition\\_65\\_Crystalline\\_Silica\\_in\\_Ceramic\\_and\\_Glass\\_Tile\\_May\\_2019.pdf](https://tcnatile.com/wp-content/uploads/2022/08/Human_Health_Risk_Assessment_for_Proposition_65_Crystalline_Silica_in_Ceramic_and_Glass_Tile_May_2019.pdf)

Report C234477. Improvement of information management related to the composition of raw materials and products in the ceramic tile sector.  
<https://transparencia.ascer.es/media/1121/c234777.pdf>

## 8. RESPONSIBILITY AND COMPLIANCE

The manufacturer commits to updating these instructions as regulations and best practices in occupational safety evolve. It is recommended to periodically review this document to ensure its validity and compliance with current regulations.

**GrupoHalcón**  
cerámicas

*"These safety instructions have been updated in November 2024 with the technical advice of the Ceramic Technology Institute."*

