

# SAFETY INSTRUCTIONS FOR WORKING WITH CERAMIC TILES

Tiles are made from raw materials of mineral origin (clay mostly) that have been mixed with water, dried, shaped and fired in kilns at a high temperature. Some have a layer of glaze on one surface that has also been fired along with the base. **Tiles are used as a construction material to clad the surface of facades, walls and floors.**

## EMERGENCY (Spain) +34 91 592 04 20

National Institute of Toxicology and Forensic Sciences  
(Spain, 24hr./365 days)

**Manufacturer/Company:** Gres Aragón

**Address** (city, Postcode, country): Ctra. Escatrón, 9, 44600  
Alcañiz, Teruel

**Telephone/E-mail:** 978 83 05  
11/gresaragon@gresaragon.com

The information provided in this leaflet is based on our current knowledge at the date indicated, refers exclusively to the product stated and does not constitute a guarantee as to the specific properties of the product. It is the user's responsibility to use the product in accordance with the recommendations and advice provided.

## 1. DANGERS

**Intact ceramic tiles are not known to have any adverse effects on health or the environment.**

**Dust can be produced during some handling processes (Cutting, rectifying, disposal etc.) that, because of its abrasive effect, can irritate parts of the body exposed to it.**

The dust released to the environment during these operations contains respirable crystalline silica (RCS), the inhalation of which can provoke acute or chronic silicosis (nodular fibrosis of the lungs) depending on how much dust the person is exposed to and for how long. Silicosis is a risk factor as regards developing lung cancer.

The amount of RCS contained in the dust that can be released by ceramic tiles during their handling is variable as it depends on their composition and on the size of the particles produced (RCS particles are smaller than  $4 \mu$ ). A preliminary study in a process of rectification of tiles reveals that it contains far less than 1% crystalline silica.

## 2. FIRST AIDS



### Dust inhalation:

Take the affected person outside into the fresh air. Administer artificial respiration if necessary.



### Contact with the eyes:

Open the eyes and wash with plenty of clean water.



### Ingestion of dust:

This is unlikely to occur. The product is not toxic nor is retained in the intestinal tract.



### Contact with the skin:

Wash with soap and water. If the skin is broken, proceed in accordance with the seriousness of the cut.

### 3. STORAGE

No special conditions are required for the safe storage of ceramic tiles, nor are they incompatible with other products or materials. They have a very long useful life as they do not degrade easily.

### 4. DISPOSAL

Waste from ceramic tiles is classified as inert material so can be disposed of at a dump authorised for the purpose in accordance with applicable regulations.

### 5. TRANSPORTATION

Ceramic tiles are rated as non hazardous merchandise by international land, sea and air transportation classifications.

### 6. SAFE HANDLING

**The measures described refer to processes that involve creating dust and/or breaking ceramic tiles such as cutting and rectification.**

#### GENERAL MEASURES

**Ensure the work space is well ventilated. Avoid creating and dispersing dust.** Wet working methods and practices that avoid or reduce the production of dust are recommended. Where it is not possible to avoid producing dust a localised extraction system should be put in place or the material should be handled in a closed system. Collect the dust produced regularly using suction mechanisms or wet cleaning methods.

#### PERSONAL PROTECTION

##### **While handling ceramic tiles:**

Wear gloves to avoid possible cuts and scratches. Wear safety shoes/boots to avoid the feet being hurt should a tile or tiles fall on them.

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

Use breathing protection, safety glasses and appropriate clothing to avoid exposure to the dust.

It is recommended that you seek advice from the suppliers of personal protective equipment (PPE) to determine which are the most appropriate for the particular workplace and amount of dust.

#### FIRE PREVENTION

##### **Ceramic tiles are not combustible.**

Observe standard fire protection provisions.

#### PROTECTING THE ENVIRONMENT

**Purify any spillages and emissions** taking account of applicable maximum values.

### USEFUL INFORMATION

Occupational exposure limit values proposed in Spain by the National Institute of safety and hygiene at work (INSHT)

<http://bdlep.insht.es/LEP2017/>

Occupational exposure limit values proposed in USA, collected by Occupational Safety and Health Administration (OSHA)

<https://www.osha.gov/dsg/annotated-pels/tablez-1.html>

Guide to safety and occupational risk prevention for professional floor and Wall tile installers. Source: PROALSO (Association of Professional Floor and Wall Tile Installers)

[http://www.proalso.es/images/pdf/M7%20PRL\\_web.pdf](http://www.proalso.es/images/pdf/M7%20PRL_web.pdf)

Good practise guide on workers health protection through the good handling and use of crystalline silica and products containing it.

Source: NEPSI (The European Network on Silica)

<http://www.nepsi.eu/good-practice-guide>

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*"These safety instructions have been drafted with technical advice from the Institute for Ceramic Tile Technology"*

**ASCER**  
Asociación Española  
de Fabricantes de Azulejos  
y Pavimentos Cerámicos

**itc**  
Instituto de  
Tecnología Cerámica