

| 1. PRODUCT & MANUFACTURER IDENTIFICATION | | | | |
|--|--------------------------------|----------------|--|--|
| | | | | |
| Product name: SWATCHES | Manufacturer: | Latest update: | | |
| Necessary Objects | El Barco, S.L. | | | |
| Neutral Territory | Ctra. Alcora, № 2, Onda, 12200 | 21/01/2020 | | |
| Brilliant Deduction | (Castellón) ESPAÑA | | | |
| | Tel: +34964600147 | | | |
| Ceramic Tile Group BIII | Fax: +34964605194 | | | |
| | elbarco@elbarco.com | | | |
| Use: Wall covering | | | | |

2. HAZARDS IDENTIFICATION

Non-hazardous PRODUCT as an intact tile.

Intact tiles (finished fired tiles) are odourless and non-flammable, and pose no hazard to health or the environment.

In some processes (such as cutting, grinding, chipping or drilling, for example) dust can be released which may irritate the exposed areas due to its abrasive effect.

Dust released as a result of the above processes contains respirable crystalline silica (SiO2) which by inhaling may lead to the development of acute or chronic silicosis (a nodular pulmonary fibrosis), depending on the quantity in haled and the time of exposure.

The amount of respirable crystalline silica in the generated dust varies depending on its composition and the size of the generated particles. The size of the respirable crystalline silica particles is less than 4 μ m. A preliminary study of a grinding process shows a percentage of respirable crystalline silica lower than 1%.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ceramic tiles are produced from raw materials from a mineral origin, predominantly clays, which have been mixed with water, dried and fired in a high temperature kiln. They have a layer of glaze in their surface which has been fired alongside the biscuit and the engobe. They are used as building materials to cover façades, walls, and floors.

Biscuit: represents 95 % of the ceramic tile, and it is composed of several types of clays which go through a physical grinding process and a subsequent atomization process.

Engobe: represents 2.5 % of the ceramic tile; its formula is composed mainly of clays, kaolin, and quartz. These ingredients have previously been mixed, fired in a kiln at high temperature, cooled and packed.

Glaze: it represents 2.5 % of the ceramic tile; its formula is composed mainly of ceramic frits, clays, and quartz. These ingredients have previously been mixed, fired in a kiln at high temperature, cooled and packed.



| 4. FIRST AID MEASURES | | |
|---|--|--|
| None of these measures is applicable for intact tiles, since they represent no hazard for health. | | |
| Inhalation | During installation, move into open air if exposed to large amounts of dust. Obtain medical attention if breathing difficulty persists. Repeated or prolonged inhalation of dust particles may cause effects on the lungs. | |
| Skin contact | Not applicable for intact tiles. | |
| Eye contact | During installation, if it occurs, immediately rinse cautiously with water for several minutes, and obtain medical attention if irritation persists. | |
| Ingestion | Not applicable for intact tiles. | |

5. FIRE – FIGHTING MEASURES

Ceramic tiles are neither flammable nor explosive. If a fire occurs in the surroundings, ceramic tiles will not contribute to flame spread or generation of smoke, and no special restrictions or instructions apply in terms of extinguishing media.

6. ACCIDENTAL RELEASE MEASURES

Not applicable for intact tiles.

During installation, we recommend wet cutting or the score and snap method in a well ventilated space to reduce dust and avoid exposure to harmful silica dust. Do not dry cut using power tools.

After installation, use a damp mop for clean up and vacuum the dust. Be careful and use gloves when collecting loose cut pieces because they can be sharp.

7. HANDLING AND STORAGE

Ceramic tiles do not require any specific conditions to guarantee a safe storage, as long as standard heights are respected. They do not interfere with other products or materials stored. Their shelf life is unlimited.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

This data sheet provides information related to potential hazards associated with dust which may be produced during cutting and grinding or while working with broken or cut tiles.

GENERAL MEASURES

Ensure an adequate ventilation, especially in confined areas. Avoid creating dust. Use wet cutting methods to reduce generation of dust. If dust release cannot be avoided, we recommend the use of a vacuum system or to handle the material in a closed system. We suggest to regularly collect the environmental dust produced by vacuuming or wet cleaning.



PERSONAL PROTECTION

While handling ceramic tiles:

Hand protection: Use protective gloves to protect against sharp edges and to avoid cuttings. Use a shovel to pick up broken pieces.

Feet protection: Use protective footwear to avoid foot damage caused by falling objects.

In case of dust production:

Respiratory protection: If exposure limits would be exceeded, use approved respiratory mask. Eye protection: Use protective goggles.

| 9. PHYSICAL AND CHEMICAL PROPERTIES | | |
|-------------------------------------|--|--|
| | | |
| Physical state: | Solid | |
| Appearance: | Solid, with varying sizes, textures and finishes | |
| Odor: | None | |
| Melting point: | Not applicable, more than 1.250 degrees Celsius | |
| Freezing point: | Not applicable | |
| Boiling point: | Not applicable | |
| Auto-ignition temperatura: | Not applicable | |
| Solubility: | Not soluble in water | |
| Volatility: | 0 g/L Volatile Organic Compounds | |

10. STABILITY AND REACTIVITY

| Chemical stability: | Not applicable |
|---|----------------|
| Hazardous reactions: | Not applicable |
| Hazardous decomposition of the product: | Not applicable |

11. TOXICOLOGICAL INFORMATION

Adverse effects not expected from exposure to intact tile.

12. ECOLOGICAL INFORMATION

There is no risk of pollution for the environment.

13. DISPOSAL CONSIDERATIONS

Ceramic tile waste, content and container, can be disposed of in accordance with local, regional, national and international regulations.



14. TRANSPORTATION INFORMATION

Ceramic tiles are considered to be non-hazardous regulated material in accordance to international regulations for ground, air and sea transport.

15. REGULATORY INFORMATION

15.1 US Federal Regulations

This tile may contain <1 percent by weight of each of the following elements, which are SARA 313 recordable: Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Chromium, Manganese, Mercury, Nickel, Lead, Silver, Thallium, Tin, Titanium, Vanadium, and Zinc.

16. OTHER INFORMATION

Revision date: 21/01/20

This safety data sheet has been reviewed to fully comply with the guidance of limit values of professional exposure proposed by:

In SPAIN: Valores límite de exposición profesional propuestos en España por el Instituto Nacional de Seguridad e Higiene en el Trabajo (INSHT) http://bdlep.insht.es/LEP2017/

In USA: limit values established by several institutions in USA, and compiled by Occupational Safety and Health Administration (OSHA) https://www.osha.gov/dsg/annotated-pels/tablez-1.html

Other sources have been:

Guía de seguridad y prevención de riesgos laborales. Fuente: PROALSO (Asociación Profesional de Alicatadores/Soladores) <u>http://www.proalso.es/images/pdf/M7%20PRL_web.pdf</u>

Guía de buenas prácticas para la protección de la salud del trabajador para la adecuada manipulación y uso de la sílice cristalina y de los productos que la contengan Fuente: NEPSI (The European Network on Silica) http://www.nepsi.eu/good-practice-guide

The information in this sheet is based on our current knowledge as of the latest update. It should not be considered as guaranteeing any specific property of the product. The data on this material safety data sheet relates only to the specific material designated herein.

Last revision: 21/01/2020

This sheet cancels and replaces any other prior edition.