

Manufacturer ALUSID®		Product Name:	Terrazzo Celadon
Controlled and Reportable Materials Disclosure	Revision Date: 21/01/2022	Issue: B	Description: Ceramic Glass Surface

Issue	Originator	Details of Change	Date
A	ABremner	Document is an Manufacturer declaration of the known ingredients within Alusid products as provided by suppliers and is a guide on safe use	09/02/2021
B	ABremner	Updated to provide CAS new numbers – recycled glass	19/01/2022

Scope

This specification sets out Alusid Ltd (“Alusid”) materials disclosure requirements for materials used in the manufacture and delivery of products to our customers.

Terms

Body – Body refers to the tile or surface main material, excluding any surface glaze or surface application.

Homogeneous Material - A material, as defined by the European Union Technical Adaptation Committee, that cannot be mechanically disjointed into different materials; homogenous materials are materials “of uniform composition throughout.” E.g Ceramics, glass

Glaze – Surface treatment applied to the surface of a tile or surface body

Reportable Substances - These substances are not currently banned but must be reported for other purposes.

Reporting Threshold - Concentration level which defines the limit equal to or above which the presence of a substance or material must be reported.

Substance - A “Substance” is a chemical element, compound, has a CAS number, some materials may be made up of multiple compounds or substances

Substance Concentration – Concentration shall be expressed in percentages or where appropriate, parts per million (ppm) The formula for parts per million (ppm) is $1,000,000 * \text{mass substance} / \text{mass of the homogeneous material}$. Concentrations are unit- less, for example $100 \text{ ppm} = 0.01\% = 100 \text{ mg/kg}$.

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Product Identification and Classification

Common Name: Silicastone Ceramic Glass Surface
Synonyms: Solid Surface
Chemical Name : None
Chemical Family: Natural inorganic products
Chemical Formula: Not applicable to tiles or surfaces
CAS Reg. No.: Not applicable to tiles or surfaces

Manufacturer: Alusid Ltd, Unit 6 Astra Business Centre, Roman Way Preston, PR25AP

The finished, fired surfaces are odourless, stable, non-flammable, and **pose no immediate hazard to health**. If dust is produced by cutting tiles during installation or if dust is produced by any other operations (including demolition/removal projects) respiratory, hand and eye protection may be needed to prevent excess exposure to airborne particulates; only in this particular case an hazard to health could arise due to breathable crystalline silica. **Surfaces are not designed to be used as food preparation surfaces.**

Emergency Overview (dust/breathable crystalline silica):

Danger! Lung injury and Cancer Hazard GHS Classification (Global Harmonized Standard Classification):

- Carcinogenicity Category 2 (H350)
- Specific target organ toxicity, single exposure; Respiratory tract irritation - Category 3 (H335)
- Specific target organ toxicity, repeated exposure - Category 1A (H372) GHS Label, Hazards and Precautionary Statements GHS Pictogram:



Crystalline Silica: Category 3 (Respiratory tract irritation) (H335) Category 1A(Carcinogenicity)(H372)

Label Signal Word: Danger

Hazard Statements:

(H350) May cause CANCER (inhalation)

(H335) May cause respiratory irritation

(H372) Causes damage to organs (lung/respiratory) through prolonged or repeated exposure (inhalation)

3. Composition/information on ingredients

Tiles are mixtures of predominately Vitrified Ceramics, Soda Lime Glass and other naturally-occurring minerals including clays, that have been mixed with water and fired in a very high temperature kiln (> 1000°C – 1100) Tiles are manufactured in various shapes, sizes, and colours. These products do not contain asbestos. Colours are achieved using ceramic oxides which react with the glass matrix during firing.

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Under normal condition these products do not release hazardous materials after installation and are not considered hazardous waste should disposal be necessary.

Body Composition

Chemical name	CAS Number	Estimated % by total Wt.
Cordierite Pitcher waste, Vitrified	1302-88-1	45-55
Recycled Soda Lime Silicate Glass	2446523-50-6	25-35
Crystalline silica as quartz, Vitreous china	14808-60-7	5-10
Kaolin	1332-58-7	3-5
Copper Oxide (Cuprix Oxide)	1317-38-0	<0.5
Manganese dioxide	1313-13-9	<0.05
Quartz	14808-60-7	<0.3

4. First aid measures

Description of first aid measures

Following skin contact: Wash with plenty of soap and water.

Following eye contact: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice if irritation persists.

Following inhalation: Take the patient outdoors and keep them warm and still.

Most important symptoms and effects, both acute and delayed

During the floor installation process, cutting stage may produce breathable crystalline silica. Prolonged and/or large-scale inhalation of breathable crystalline silica dust may cause pulmonary fibrosis, commonly known as silicosis. The main symptoms of silicosis are coughing and shortness of breath. Occupational exposure to breathable crystalline silica dust must be monitored and controlled.

Indication of any immediate medical attention and special treatment needed

Treatment: None

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5. Firefighting measures

Flash point (Method Used): N/A
 Flammable limits:
 LEL-Not Applicable
 UEL- Not Applicable
 Autoignition Temperature: N/A
 Fire Extinguishing Media: N/A
 Special Fire Fighting Procedures: N/A
 Fire and Exposition hazards: N/A None Required

6 Accidental release measures

Avoid creating excessive dust. Clean up dust with a vacuum system with a High-efficiency particulate (HEPA) air filter vacuum or damp sweeping. See Section 8 of this SDS concerning PPE information for clean-up.

7. Handling and storage

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.** Use respiratory protection in the absence of effective engineering controls.

Do not store near acids. If tiles contact some acids, damage/discoloration to the surface may occur especially to the surface of highly glazed surfaces. Shelf life is unlimited provided the storage boxes are kept in a good condition.

8. Exposure controls/personal protection

Control parameters (ACGH)

Total dust (TLV/TWA)

TLV TWA - 10 mg/m³
 TLV STEL - n.d.

Breathable Dust fraction (TLV-TWA)

TLV TWA - 3 mg/m³
 TLV STEL - n.d.

Crystalline Silica as QUARTZ – Breathable fraction:

TLV TWA - 0.025 mg/m³
 TLV STEL - n.d.

Exposure controls

Ventilation: Use adequate ventilation to keep exposure to dust below recommended exposure levels. Avoid inhalation of dust. The highest probability of silica exposure occurs during installation using dry cutting methods or during removal of installed tile or surface.

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Wet cutting methods are recommended.

Eye protection: Not required for normal use. In the absence of effective engineering controls, se dust-proof goggles or safety glasses with side shields. Contact lenses may absorb irritants. Do not wear contact lenses in work areas.

Hand/Skin protection: When cutting this product, cotton or leather work gloves should be worn to minimize skin exposure to dust and/or cuts. Wash hands prior to eating, drinking, or smoking, and at the end of the work shift, after cutting operations are conducted.

Respiratory protection: In the event of exposure levels higher than those stated in point 8.1, wearing a respiratory protection device compliant with national legal requirements is mandatory. Use of proper PPE it is still always recommended during tiles cutting, grinding and removing stages.

9. Physical and chemical properties

Appearance and colour: brittle solid, colour may vary, glazes also vary

Odour: Odourless

Melting point/freezing point: 1200C

Initial boiling point and boiling range: N/A

Flammability (solid/gas): Not inflammable

Upper/lower flammability or explosive limit: N/A

Vapour density: N/A

Flash point: Evaporation rate: not flammable N/A

Vapour pressure: N/A

Solubility in water: N/A

Specific Gravity (H2O = 1): >2

Solubility in oil: N/A

Partition coefficient: n-octanol/water: N/A

Auto-ignition temperature: Not inflammable

Decomposition temperature: N/A

Viscosity: N/A

Explosive properties: N/A

Oxidising properties: N/A

Volatility: 0 g/L Volatile Organic Comp.(VOCs)

10. Stability and reactivity

Reactivity : Inert

Chemical stability: stable in normal conditions

Conditions to avoid: Contact with acid and strong alkali

Stability: stable in normal conditions and use

Incompatible materials: Acid and alkali

Hazardous decomp. products: None

Hazardous Polymerization: None

11. Toxicological information

Tile products are mixtures of predominately Clays, Sands, Glass and other naturally-occurring mineral, that have been mixed with water and fired in a high temperature kiln. Tiles are odourless, stable, non-flammable, and pose no immediate hazard to health. **Surfaces are not designed to be used as food preparation surfaces.**

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Respiratory, hand and eye protection may be needed to prevent excess exposure to airborne particulates if dust is produced by cutting tiles or if dust is produced by any other operations, including removal.

Primary Routes of Exposure

None for intact surface.

Inhalation and potential eye exposure to eyes, hands, or other body parts if contact is made with broken, and/or during procedures involving the cutting of tiles, and/or for operations involving the removal of installed tiles.

Acute Effects

No acute effects from exposure to intact tile are known.

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 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 generated from tile dust.

Signs such as laboured breathing and early fatigue may indicate silicosis; however, these symptoms can arise from many other causes. Care should be taken to reduce dust when working with any Alusid tile products

Chronic Effects

No chronic effects are known for exposure to intact tile.

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), and are associated with pulmonary tuberculosis, bronchitis, emphysema, and other airway diseases.

This type of exposure may also be related to 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 laboured breathing and early fatigue may indicate silicosis; however, these symptoms can arise from many other causes.

Potential Adverse Interactions

Silicosis may be complicated by severe mycobacterial or fungal infections and result in tuberculosis (TB). Epidemiologic studies have established that silicosis is a risk factor for developing TB. Any existing respiratory or pulmonary diseases may be complicated by exposure to respirable crystalline silica. Smoking may increase the risk of adverse effects if done in conjunction with occupational exposure to crystalline silica.

Carcinogen Status

Breathable crystalline silica is classified by the International Agency for Research on Cancer (IRAC) as a Group I Carcinogen (carcinogenic to humans). The National Toxicology Program (9th Report) lists respirable crystalline silica as

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Known to be a Human Carcinogen. USDOL/OSHA and NIOSH have recommended that crystalline silica be considered a potential occupational carcinogen.

Overview of Animal Testing Data

Short term experimental studies of rats have found that intratracheal instillation of quartz particles leads to the formation of discrete silicotic nodules in rats, mice and hamsters.

Oral (silica) Lethality

LD50 Rat oral >22,500 mg/kg LD50
 Mouse oral >15,000 mg/kg LC50
 Carp >10,000 mg/l (per 72 hr)

12. Ecological information

Toxicity: Adopt good working practices and do not discharge the product into the environment.

Persistence and degradability : N.A.

Bioaccumulative potential : N.A.

Mobility in soil : N.A.

Other adverse effects : None

13. Disposal considerations

Ceramic tiles are building materials. Waste treatment methods: Recover if possible or dispose in a certified landfill authorized to accept such material in accordance with the relevant local and national legislation.

14. Transport information

D.O.T Shipping Name: N/A
 SIC code: 69072200
 Hazard Class: Not Hazardous /Not regulated material)
 ID Number: N/A
 Marking: N/A
 Label: N/A
 Placard: N/A
 Hazardous Substance/RQ: N/A
 Shipping Description: Recycled Ceramic surfaces
 Packaging References: None

15. Regulatory information

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This product and/or its components have been previously introduced into U.S. commerce and is listed in the Toxic Substances Control Act (TSCA) Inventory of Chemicals in Commerce. Hence, it is subject to all applicable provisions and restrictions under TSCA 40 CFR Section 721 and 723.250.

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

Title 22 Division 2, California Code of Regulation Chapter 3 (Proposition 65): This product contains a chemical or chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

This product or its components meets the following hazard definition(s) as defined by the Occupational Safety and Health Hazard Communication Standard (29 CFR Section 1910.1200):

Based on information presently available, this product does not meet any of the hazard definitions of 29 CFR Section 1910.1200.

Please Note: The information in this data sheet provides information related to the potential hazards associated with dusts which may be produced during cutting or otherwise changing the shape of the tile during installation and/or removal. Exposure to acid will release additional hazards

16. Other information

NONE