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THE ORIGINAL ITALIAN SURFACE ®



SM QUARTZ

SAFETY GUIDELINES FOR FABRICATION

This document is not a "safety data sheet" as it is not required for the product, as per Art. 31 of the REACH Regulation (EC No.

ATTENTION

This material is not subject to the requirements of Regulation (EC) 1272/2008, this product also does not need to be accompanied by a safety data sheet as it falls under the definition of an article according to Regulation 1907/2006 article 3.33. (REACH).

Only substances and mixtures deemed hazardous, as defined in article 31.1 of the REACH Regulation, need to be accompanied by a Safety Data Sheet.

However, Santa Margherita prepares a document with a structure similar to the Safety Data Sheets in order to provide useful safety information for professional workers who will be using our product SM QUARTZ, which generates respirable dust during cutting, drilling, sanding.

Products in the SM QUARTZ range contain crystalline silica, and processing them without taking appropriate safety and protective measures can cause serious illness.

At European level, Directive (EU) 2017/2398, transposed by Legislative Decree 81/2008 in Italy, states that:

There is sufficient evidence of the carcinogenicity of respirable crystalline silica dust. Based on the available information, including scientific and technical data, a limit value for respirable crystalline silica dust should be established. Respirable crystalline silica dust generated by a manufacturing process is not subject to classification according to Regulation (EC) No. 1272/2008. It is therefore appropriate to include work involving exposure to respirable crystalline silica dust generated by a manufacturing process in annex I of Directive 2004/27/EC and to establish a limit value for crystalline silica dust ('respirable fraction'), which should be subject to review, especially in view of the number of workers exposed.

Consult occupational safety experts to implement the necessary measures to ensure compliance with regulatory requirements and mitigate dust exposure. The safety measures required depend on the specific conditions of the workplace.

Employers of personnel exposed to dust from work processes are responsible for informing their employees of the risks and ensuring that the work environment complies with applicable obligations, and are also responsible for implementing the required health and safety measures in the workplace.

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Identification of the Substance/Mixture and of the Company/Manufacturer

Trade Name: SM QUARTZ®

Relevant Uses: Construction/decorative material for indoor use mainly for kitchen and bathroom countertops, flooring, stairs, cladding and other similar uses.

Important Note: Do not process the material dry to avoid generating dust.

Details of the Supplier of Safety Guidelines for Fabrication

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Hazards Identification:

According to Regulation (EC) No. 1272/2008 (CLP) no risk is associated with the finished product SM QUARTZ®.

When cutting, milling, drilling, polishing etc. the product, any dust produced by the process will contain crystalline silica. Prolonged or massive exposure to dust containing respirable crystalline silica can cause silicosis, a nodular pulmonary fibrosis caused by the deposition of fine crystalline silica particulate in the lungs, lung cancer, chronic obstructive pulmonary disease or kidney disease.

Substances that make up the material and represent a health and environmental hazard according to EC Regulation No. 1272/2008, classified as PBT/mPmB or listed:




- Crystalline silica (SiO₂) 10-94%
- Titanium dioxide (TiO₂) 0-2%




Other Hazards:


The product as such poses no danger to health and the environment in accordance with the REACH regulation (EC No. 1907/2006) and the European directives 67/548/EEC, 91/155/EEC, 76/769/EEC, 199/45/EEC and amendments 93/112/EEC, 2001/58/EEC, 2001/60/EEC.

Label Elements

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

Hazard Indications & Pictograms:		
H372	Causes lung damage with prolonged or repeated exposure by inhalation.	  
H335	Can cause cancer if inhaled.	
H350i	May irritate the respiratory tract.	

Precautionary Statements and Pictograms:		
P201	Obtain special instructions before use.	  
P202	Do not handle until all safety precautions have been read and understood	
P260	Do not breathe dust generated during cutting, sanding or polishing processes.	
P264	Wash face and hands thoroughly after handling (cutting, sanding or polishing processes).	
P270	Do not eat, drink or smoke when using this product (cutting, sanding or polishing processes).	
P284	Wear respiratory protective equipment (at least P3 or N95)	

First Aid Measures:		
P314	Get medical attention if you feel unwell.	
P501	Dispose of the product in accordance with local laws.	

Composition/Information on Ingredients

The material consists of selected mineral fillers (83 % - 94 %) such as quartz, cristobalite, glass, mirror, feldspar, silica sands in different proportions depending on the type of product. The binder (6% - 17%) consists of polymerised polyester resin. Additives and pigments (<5%) are present.

During processing of the material, the following substances may be released in dust form in the percentages indicated in the table.

Name	Product Identifier	Concentration	(Classification according to Regulation (EC) No. 1272/2008 [CLP])
Crystalline silica (SiO ₂): quartz and cristobalite	CAS No. 144-64-1, 14808-60-7 EC No. 238-455-4, 238-878-4	10% - 94%	STOT RE 1, H372 STOT SE 3, H355 Carc. 1A, H350i
Titanium dioxide (TiO ₂)*	CAS No. 13463-67-7 EC No. 236-675-5	0% - 2%	Carc.2 H351i

* By Judgment no. 190/2022 of 23 November 2022, the European Court of Justice annulled the harmonised classification and labelling of titanium dioxide (TiO₂) in fine powder form as a category 2 carcinogen by inhalation, and the amendment is pending inclusion in Regulation (EC) 1272/2008.

First Aid Measures

Description of First Aid Measures

These measures should only be implemented for work processes that generate dust. No special measures are required for the finished material.

First Aid Measures in case of Inhalation:

Do not inhale dust generated by the processing of the material. If there are symptoms of intoxication, move the person to fresh air. If symptoms persist, consult your doctor.

First Aid Measures in Case of Ingestion:

Consult a doctor.

General First Aid Measures

Remove the affected person from the source of exposure. Let the person involved breathe fresh air and rest. Do not give him/her a drink if he/she is unconscious.

First Aid Measures in Case of Skin Contact:

Wash the affected skin area with soap and water.

First Aid Measures in case of contact with the Eyes:

Wash the eyes immediately and thoroughly with water. Consult a Doctor.

Most Important Symptoms and effects, both acute and delayed.

Inhalation:

In the event of processing such as cutting, milling, drilling, polishing etc. of the product, the generated dust suspended in air contains crystalline silica. Prolonged or massive exposure to dust containing respirable crystalline silica can cause silicosis, a nodular pulmonary fibrosis caused by the deposition of fine crystalline silica particulate in the lungs, lung cancer, chronic obstructive pulmonary disease or kidney disease. The main symptoms of silicosis are coughing and difficulty breathing.

If in doubt or if the symptom persists, consult a doctor.

Fire Fighting Measures

The material is non-combustible and does not give rise to hazardous thermal decomposition. Therefore, in the event of a fire, manage the situation on the basis of the surrounding environment.

Accidental Release Measures

The finished material presents no risk of spillage or leakage.

Handling and Storage

For handling, use safe systems (cranes, trestles with safety bars, appropriate slings and ropes, etc.) in compliance with local regulations.

No special precautions are required, however, as with the handling of any other stone product, it is suggested that appropriate personal protective equipment be used: gloves, safety shoes, safety goggles, helmet.

Fabrication and Installation

Employers of personnel exposed to dust from work processes are responsible for informing their employees of the risks and ensuring that the work environment complies with applicable obligations, and are also responsible for implementing the required health and safety measures in the workplace.

The fabrication of the material must be carried out with systems that do not release dust into the air. It is recommended to use machines and tools with integrated water supply and forced or natural ventilation systems that ensure air exchange in the workplace.

Uncontrolled dry processing should be avoided at all means as the dust generated contains respirable crystalline silica (SiO₂).

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When cleaning and maintaining machines and the working environment, do not use compressed air and brooms or methods that generate dust. Use vacuum and/or water cleaning systems. Keeping processing facilities clean and efficient.

Conditions for Safe Storage

No special safety precautions are required for storage. Store the product in a suitably closed and covered environment.

Exposure Controls/Personal Protection

Control parameters: Occupational exposure limit values

These measures should only be implemented in case of work processes that generate dust, and not from the product as such, which requires no exposure control and no personal protection.

Fraction of Respirable Dust in the European Union

The European Directive 2017/2398 includes an occupational exposure limit value for the respirable fraction of crystalline silica of 0.1 mg/m³ (at 20°C and 101.3 kPa).

Occupational exposure limit 8h TWA (mg/m³)

Country:	Inert (respirable) Dust	Quartz (breathable)	Cristobalite (breathable)	Tridymite (breathable)
Austria / I	5	0,05	0,05	0,05
Belgium / II	3	0,1	0,05	0,05
Bulgaria / III	4	0,07	0,07	0,07
Croatia		0,1	0,05	0,05
Cyprus / IV	/	10k / Q ⁵	/	/
Czech Republic / V		0,1	0,1	0,1
Denmark / VI	5	0,1	0,05	0,05
Estonia		0,05	0,05	0,05
Finland / VII	/	0,05	0,05	0,05
France / VIII	5	0,1	0,05	0,05
Germany / IX	0,5 ⁵	0,05	0,05	0,05
Greece / X	5	0,1	0,05	0,05
Hungary		0,1	0,1	0,1
Ireland / XI	4	0,1	0,1	0,1
Italy / XII	3	0,1	0,1	0,1
Lithuania / XII	10	0,1	0,05	0,05
Luxembourg / XIV	6	0,1	0,1	0,1
Malia* / XV	/	/	/	/
Holland / XVI	5	0,075	0,075	0,075
Norway / XVII	5	0,05	0,05	0,05
Poland / XVIII	/	0,1	0,1	0,1
Portugal / XIX	5	0,025	0,025	0,025
Romania / XX	10	0,1	0,05	0,05
Slovakia		0,1	0,1	0,1
Slovenia		0,05	0,05	0,05
Spain / XXI	3	0,05	0,05	0,05
Sweden / XXII	2,5	0,1	0,05	0,05
Switzerland / XXII	6	0,15	0,15	0,15
United Kingdom / XXIV	4	0,1	0,1	0,1
Turkey		10 mg/m ³ /%SiO ₂ +2		

1. No information for Latvia. The European Directive 2017/2398 includes an occupational exposure limit value for the respirable fraction of crystalline silica of 0.1 mg/m³ (at 20°C and 101.3 kPa).
2. Q: percentage of quartz - K = 1
3. Defined for a density of 1 g/cm³, i.e. for material with a density of 2.5 g/cm³, a calculated LEV of 1.25 mg/m³ applies.
4. When necessary, the Maltese authorities refer to the UK values for LEVs that do not exist in Maltese legislation.

Source: <https://ima-europe.eu/eu-policy/health-and-safety/dust-and-oels/>

Fraction of Respirable Dust in the United States

Substance	Quartz (breathable)	Cristobalite (breathable)	Inert (respirable) Dust
CAS NO.	14808-60-7	14464-46-1	-
OSHA - Permissible Exposure Level (PEL) -TWA 8 hours (mg/m ³)	0.05	0,05	5
NIOSH - Recommended Exposure Value (REL) -TWA 10 hours (mg/m ³)	0.05	0.05	-
ACGIH - Threshold Limit Value (TLV) -TWA 8 hours (mg/m ³)	0.025	0.025	-

Source: OSHA's Permissible Exposure Limits - Annotated Tables <https://www.osha.gov/annotated-pels>

Breathable Dust Fraction in Australia and New Zealand:

Substance	Quartz (breathable)	Cristobalite (breathable)
CAS NO.	14808-60-7	14464-46-1
AUSTRALIA (OEL) - TWA 8 hours (mg/m ³)	0,05	0,05
NIOSH - Recommended Exposure Value (REL) -TWA 10 hours (mg/m ³)	0.05	0,05

Source : <https://hcis.safeworkaustralia.gov.au>; <https://www.worksafe.govt.nz/topic-and-industry/monitoring>

Breathable Dust Fraction in Brazil:

Tolerance threshold for the respirable fraction:

$$L.T.R. = \frac{8}{\%quartz + 2} mg/m^3$$

Source: <https://www.gov.br/trabalho-e-previdencia/pt-br/lixo/images/Documentos/SST/NR/NR15/NR15-ANEXO12.pdf>

Other Substances with Occupational Exposure Limit Value

Substance	CAS NO.	Occupational Exposure Limit TWA 8h (mg/m ³)
Carbon Black	1333-86-4	3 (inhalable fraction)
Titanium Dioxide	13463-67-7	2.5 (respirable fraction)
Iron Oxide	1309-37-1	5 (respirable fraction)

Source: <https://www.acgih.org>

To obtain updated or specific limits for countries not listed here, please consult a competent health and safety professional or the local regulatory authority of the country in question. The occupational exposure levels given here are for information purposes only. They are not binding and do not have to be completely accurate.

Exposure Controls

General Measures

Minimise the generation of airborne dust. Use process containment structures, local ventilation or other technological control systems to keep airborne dust levels below exposure limits. It is also recommended to carry out all fabrication with tools with an integrated water supply system. Take organisational measures, such as separating dusty areas from those frequented by staff.

Personal protective equipment



Respiratory Protection:

The use of respiratory protective equipment with a suitable particle filter according to EN 143:2000 and subsequent amendments EN143/AC 2005, EN143/Al 2006 and en143:2021 (type P3) is recommended. Please refer to the applicable local regulations. Use proper respiratory protection even when working with machines with water-based dust suppression systems.

Hand Protection:

The use of permeation-resistant category III and type C (EN 374) work gloves is recommended.

Skin Protection:

It is not necessary to use skin protection devices. It is recommended to use work clothing that prevents direct contact of dust with the skin (ref. Reg. (EU) 2016/425 and standard EN ISO 20344). Wash hands and face with soap and water to remove any work dust before breaks and at the end of the work shift.

Eye Protection:

The use of safety glasses with side protection in accordance with EN166:2001 is recommended. Please refer to the applicable local regulations.

Physical and Chemical Properties

Information on basic physical and chemical properties.

Physical state at 20°C	solid
Appearance	solid with granular texture
Colour	consult the range
Odour	odourless
Olfactory threshold	not relevant
Density (EN-14617-1)	1950 - 2500 Kg/m ³
Oxidising properties	non-oxidising
Water absorption (EN 14617-1)	≤ 0.10 %
Flexural strength (EN 14617-2)	≥ 25 MPa
Thermal expansion coefficient (EN 14617-11)	20 - 65 *10 ⁻⁶ °C ⁻¹

Stability and Reactivity

The material is stable and non-reactive under normal conditions of storage and use. Do not store or use outdoors, as UV radiation could endanger the material's properties. Avoid strong shocks and subjecting the material to high temperatures.

Toxicological Information

In the absence of experimental toxicological data on the product itself, the possible health hazards of the product were assessed on the basis of the properties of the substances contained, according to the criteria laid down in the relevant classification regulations.

Information on hazard classes defined in Regulation (EC) No 1272/2008:

Acute Toxicity (Oral)

Based on the available data, the classification criteria are not met.

Acute Toxicity (Inhalation)

Based on the available date, the classification criteria are not met.

Serious Eye Damage / Irritation:

Based on the available date, the classification criteria are not met.

Acute Toxicity (Skin)

Based on the available date, the classification criteria are not met.

Skin Corrosion / Irritation:

Based on the available date, the classification criteria are not met.

Germ Cell Mutagenicity:

Based on the available date, the classification criteria are not met.

Carcinogenicity:

Quartz and Cristobalite (SiO₂):
Prolonged or massive exposure to dust containing respirable crystalline silica can cause lung cancer. Crystalline silica is classified:

Directive 2004/37/EC Carcinogenic, category 1A
IARC Group 1, carcinogenic to humans
NTP Known to be carcinogenic
OSHA Yes. Regulated as a carcinogen
ACGIH A2. Suspected human carcinogenicity
WES 6.7 Confirmed carcinogenicity (r)
HCIS Carcinogenic Category 1 A

Titanium dioxide (TiO₂):
By Judgment no. 190/2022 of 23 November 2022, the European Court of Justice annulled the harmonised classification and labelling of titanium dioxide (TiO₂) in fine powder form as a category 2 carcinogen by inhalation, and the amendment is pending inclusion in Regulation (EC) 1272/2008.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Prolonged or massive exposure to dust containing respirable crystalline silica can cause silicosis, a nodular pulmonary fibrosis caused by the deposition of fine crystalline silica particulate in the lungs, lung cancer, chronic obstructive pulmonary disease or kidney disease. The main symptoms of silicosis are coughing and difficulty breathing.

Specific Target Organ Toxicity (STOT) - Single Exposure:

Dust generated during fabrication can cause irritation of the respiratory tract if appropriate protective measures are not used.

Danger in Case of Aspiration:

Based on the available date, the classification criteria are not met.

Reproductive Toxicity:

Based on the available data, the classification criteria are not met.

Endocrine-Disrupting Properties:

Not relevant.

Ecological Information

Toxicity: The material is non-toxic to the environment.

Disposal Considerations:

However, always refer to the relevant local regulations for waste disposal.

Transport Information

The material is not dangerous for transport.

Regulatory Information

European Regulations:

- Seveso Category - Directive 2012/18/EC: none.
- Biocides Regulation (Reg. (EU) 528/2012): not applicable
- Detergents Regulation (Reg. (EC) 648/2004): not applicable
- Dir. 2004/42/EC - VOC / Lgs.D. 161/2006: not applicable
- Restrictions on the product or substances contained according to Annex XVII Regulation (EC) 1907/2006: no substances subject to restriction were used.
- Candidate List substances (Art. 59 REACH): no SVHC substances above 0.1% w/w are contained
- Substances subject to authorisation (Annex XIV REACH): no substances subject to authorisation were used.
- Substances subject to the Stockholm Convention: no substances subject to the Stockholm Convention were used.

Health Checks: workers exposed to this chemical agent hazardous to health must undergo health surveillance carried out in accordance with the requirements of art. 41 of Legislative Decree 81 of 9 April 2008 unless the risk to the worker's health and safety has been assessed as insignificant, in accordance with art. 224 paragraph 2.

U.S. Regulations:

- Safety and Health Regulations for Construction 1923.1153
- Occupational Safety and Health Standards 1910.1053
- Californian Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65

Note: Dust generated by fabrication processes can expose the respirable fraction of crystalline silica and titanium dioxide, known to cause cancer in the state of California.

Australia and New Zealand Regulations:

- Australia Hazardous Chemical Information System (HCIS)
- Australia Work Health and Safety Regulation 2016
- New Zealand Workplace Exposure Standards (WES)
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

Other Information

Texts and risk phrases quoted in the document:

H373: May cause damage to organs through prolonged or repeated exposure.

H350i: May cause cancer by inhalation.

H351i: Suspected of causing cancer by inhalation.

H335: May irritate the respiratory tract.

STOT RE 1: Specific toxicity in certain organs (repeated exposure). Category 1.

STOT RE 2: Specific toxicity in certain organs (repeated exposure). Category 2.

STOT SE 3: Specific toxicity in certain organs (single exposure). Category 3.

Carc. 1A: Carcinogenic: Category 1A.

Carc. 2: Substances suspected of having carcinogenic effects on humans.

H372: Causes damage to organs through prolonged or repeated exposure.

Abbreviations and acronyms:

ACGIH: Association Advancing Occupational and Environmental Health.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

CAS: Chemical Abstracts Service (Division of the American Chemical Society).

LC50: Lethal concentration, 50%.

CLP: European Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of substances and mixtures.

HCIS: Australia Hazardous Chemical Information System.

HCS: The Hazard Communication Standard.

HMIS: Hazardous Materials Identification System.

IARC: International agency for research on cancer.

IATA: International Air Transport Association.

vPvB: Very Persistent and very Bioaccumulative.

OEL: Occupational Exposure Limit.

UN: United Nations.

OSHA: Occupational Safety and Health Administration.

PBT: Persistent, bioaccumulative and toxic substances.

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals.

RID: Regulations concerning the international transport of dangerous goods by rail.

WES: New Zealand Workplace Exposure Standards

Main Bibliographical References:

<http://www.nepsi.eu>

<https://www.acgih.org>

<https://www.worksafe.govt.nz/topic-and-industry/monitoring>

<https://hcis.safeworkaustralia.gov.au>

Other Relevant Information:

The information provided corresponds to the best of our knowledge and experience at the date of issue. However, we cannot guarantee its complete accuracy, reliability and completeness. It is the recipient's responsibility to obtain adequate and complete information regarding possible uses of the product other than those for which it was manufactured and to verify compliance with applicable rules and regulations.

More information regarding the handling of crystalline silica and products containing it can be found at:

Good practice guide under the convention on the protection of workers' health by the proper handling and use of crystalline silica and products containing it, drawn up by the European NEPSI Silica Network: <http://www.nepsi.eu/>

Website on crystalline silica and health, created by the European Industrial Minerals Association (IMA-Europe): <https://www.crystallinesilica.eu/>

OSHA standard for Respirable crystalline silica: www.osha.gov/dsg/topics/silicacrystalline/index.html

Californian Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65: <https://oehha.ca.gov/chemicals/silica-crystalline-respirable>

Australian SafeWork NSW - Crystalline Silica Fact Sheet <http://www.safework.nsw.gov.au/media/publications/health-and-safety/hazardous-chemicals/crystalline-silica-technical-fact-sheet>

The product has obtained 'Greenguard Certification' and 'Greenguard Gold Certification' with certificates No. 29306-410 and 29306-420 issued by the Greenguard Environment Institute. This means that the product is suitable for indoor use due to its very low emissions of volatile substances into the air, below even the restrictive 'Greenguard Gold Certification' limits.

In accordance with the provisions of the REACH regulation, the product does not contain more than 0.1% p/p any of the hazardous substances (SVHC - Substances of Very High Concern) listed in the Candidate List as presented on the website of the Chemical Agency (ECHA) at: <https://echa.europa.eu/it/candidate-list-table>



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