

MATERIAL SAFETY DATA SHEET



Product name: SILESTONE®
Manufacturer: Cosentino, S.A.
Last revision date: August 2006

1. PRODUCT AND COMPANY DESCRIPTION

Product description	Solid quartz surface
Commercial name	SILESTONE
Company name	Cosentino, S.A.
Address	Crta. C-323. Km 59 Cantoria (Almería)
Telephone number	Telephone: 950 44 41 75 Fax: 950 44 42 26
WEB Page	www.cosentino.es

2. COMPOSITION/INFORMATION ABOUT THE COMPONENTS

General composition. Table 1

SUBSTANCE	Composition (%)
Orthophthalic polyester resin	5 - 25
Pigments	< 5
Micronized silica (< 0.1 mm) (SiO ₂)	5 - 50
Grounded silica (0.1 - 10 mm) (SiO ₂)	10 - 90
Grounded quartz (0.1 - 10 mm) (SiO ₂)	5 - 50
Grounded Glass/Mirror (0.1 - 10 mm)	5 - 50
Grounded granite (1 - 10 mm)	5 - 50

Additives. Table 2

CAS #	EINECS
83711-44-8	280-540-3
614-45-9	210-382-2
2530-85-0	219-785-8

This product does not contain free substances that involve a risk for the health in accordance to the Regulation of Dangerous Substances R.D. 255/2003 and according to the European Norms 67/548/EEC, 199/45/EE and its corrections 93/112/EEC, 2001/58/EEC y 2001/60/EEC.

The finished product does not contain any of the substances described in table 2 since, once completed the production process, these are part of the three-dimensional structure of the polyester, included and immobilized in it. Therefore, this product is not classified as dangerous substance or product that involves a risk for the health according to the Regulation of Dangerous Substances R.D. 255/2003, and according to the European Norms 67/548/EEC, 199/45/EE and its corrections 93/112/EEC, 2001/58/EEC y 2001/60/EEC by means of which the present Security Data Sheet (MSDS) has been written up.

3. RISKS IDENTIFICATION AND GENERAL SAFETY MEASURES

This product presents no type of risks for the human health or environment in accordance to the Regulation of Dangerous Substances R.D. 255/2003, and according to the European Norms 67/548/EEC, 199/45/EE and its corrections 93/112/EEC, 2001/58/EEC y 2001/60/EEC.

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As it happens with any other natural stone product such as quartz, marble or granite, the operations of dry cutting, milling and polishing or any other treatment applied to this product can generate dust susceptible to produce irritation in eyes, nose and respiratory tract.

A prolonged exposure to the dust derived from the dry cutting and polishing treatments can cause serious health problems as pneumoconiosis, silicosis, as well as a worsening of the people affected by pulmonary diseases as bronchitis, emphysema, etc.

In order to reduce a casual exposure it is always recommended to use water as dust reducer. It is advisable the use of tools cooled by water and to perform the operations of dry cutting, milling and polishing of this product in a suitably ventilated place. Otherwise, it is essential to use respiratory personal protection for dust and particles type FFP1 according to norm UNE-EN 143:2001 and its revisions UNE-EN 143/AC 2002, UNE-EN 143/AC 2005.

It is recommended the use of security glasses and to have at eyewash emergency facilities, in addition to using impermeable clothes for protection of prolonged contact with the water resulting of the cutting treatment.

Please consult and follow carefully the instructions given in the manual of use for professionals that are available at the closest distributor, as well as at the webpage <http://www.silestone.com/>

4. FIRST AIDS

This product is not hazardous in normal use, but not using the right equipment during fabrication operations as cutting, drilling, etc can cause a situation of emergency:

Eye contact Do not rub the eyes. Rinse gently with water. Use of protection glasses.
Skin contact Rinse gently with water and soap. Use protection clothes and gloves.
Inhalation Remove affected person to fresh air. Apply attended ventilation in case of serious reaction of the injured person. Work in damp. Use of protection masks. Ventilate the work zone
Ingestion Call a physician.

5. FIRE PREVENTION METHODS

Special fire risks	Code M3
FIRE resistance	Category A2/B Si (Vapour) Do (Dripping)
Proper extinction agents	Any proper agent against the surrounding fire
Personal protection equipment	Depending of the surrounding fire type

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6. MANIPULATION AND STORAGE

6.1.- MANIPULATION

It is not necessary special measures for the manipulation of this product, but it is recommended to follow the next precautions.

Personal precautions. Use suitable security shoes, respiratory personal protection for dust and particles type FFP1 according to norm UNE-EN 143:2001 and its revisions UNE-EN 143/AC 2002, UNE-EN 143/AC 2005, even working with water as dust reducing agent during the elaboration of this product.

Environmental protection. It is recommended specifically the use of tools cooled by water and to perform the operations of dry cutting, milling, elaboration or another treatment of this product in a suitably ventilated place to avoid the formation of dusty atmosphere.

6.2. STORAGE

It is not necessary specific conditions for a safe storage. Store in a place properly closed and covered. Avoid strong impacts that can cause the breakage of the material.

7. CONTROL OF EXPOSURE/ PERSONAL PROTECTION

7.1 LIMIT VALUES OF EXPOSURE

The protections to exposure and the personal protection are derived from the elaboration of this product because the dust in suspension that are generated in these processes.

In accordance to the previously exposed and relying to the norm 2000/39/CE, as well as to the R.D. 274/2001 which it sends us to the values published by the National Institute of Health and Hygiene at Work (INSHT), the limit of the daily exposition to the dust resulting of the elaboration of Silestone® is 2 mg/m³. It is appears in Table 1 for the year 2006 published by the mentioned INST in the line "Silica, vapor. Breathable fraction".

7.2 EXPOSURE CONTROLS

Respiratory protection. Respiratory personal protection for dust and particles type FFP1 according to norm UNE-EN 143:2001 and its revisions UNE-EN 143/AC 2002, UNE-EN 143/AC 2005, even working with water as dust reducing agent during the elaboration of this product.

Hand protection. The use of gloves is not necessary, although its use is recommended to avoid cuts with the pieces in its manipulation. Wash the hands with water and soap to eliminate the dust before the rests and at the end of the turn.

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Ocular protection. The use of glasses of ocular protection and integral mount is recommended, according to norm EN166: 2001.

Coetaneous protection. It is not necessary the use of coetaneous protection.
Exposure and personal protection are derived from the elaboration of SILESTONE (cut, polish, etc) and not from SILESTONE as product.

8. PHYSICAL AND CHEMICAL PROPERTIES

Aspect	Solid, it depends on the color and on the composition
Color	Commercial range
Smell	Odorless, a light smell of polyester resin can appear during the elaboration
PH	Not applicable
Miscibility (in water)	Not applicable
Water absorption (EN-14617-1)	0.15 %
Density (EN-14617-1)	2352 Kg/m ³
Compression resistance (EN-14617-15)	150.03 MPa
Flexure resistance (EN-14617-2)	43.6 MPa
Coefficient of thermal expansion (EN-14617-11)	38,62·10 ⁻⁶ K ⁻¹
Boiling temperature	Not applicable
Fusion temperature	Not applicable
Inflammation temperature	Not applicable
Spontaneous combustion temperature	Not applicable
Flammable Limit in the air	Not applicable
Steam pressure at 20°C	Not volatile
Specific weight at 20° C	[2030 – 2500] kg / m ³
Solubility in water, 20° C	Insoluble

9. STABILITY AND REACTIVITY

Conditions to be avoided

Avoid contact with surfaces with temperature over 150 °C
Avoid strong impacts that can cause the breakage of the material.
Avoid its use outdoors.

Incompatible materials

Avoid contact with acetones and painting remover. It affect to the structure and bounds of the polyester resin.

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Avoid contact with strong basic products ($\text{pH} \gg 7$), such as caustic soda (NaOH) or potassium hydroxide (KOH). This causes a series of substitution reactions in the polymer molecule and the breakage of bounds that affects negatively to the structure of the polyester resin

Hydrofluoric acid (HF). The reaction with hydrofluoric acid produces the decomposition of SiO_2 (silica and quartz) in silicon tetrafluoride (that is a corrosive gas) and water, deteriorating the surface of the Silestone material.

Products of the decomposition

None known

10. TOXICOLOGICAL INFORMATION

As another product of natural stone that contains quartz or quartz dust as quartz, marble or granite, the operations of dry cutting, milling or any other treatments of this product can generate dust susceptible to produce irritation in eyes, nose and respiratory tract. A prolonged exposure can cause serious health problems, including pneumoconiosis.

The protections for exposure and the personal protection are derived from the elaboration of this product (cutting, polishing, etc), due to the dust in suspension that are generated in these processes, and not from SILESTONE as product
50 DL > 2000 mg/kg. (Tested in Rats)

In accordance to RD 363/1995, regulation about notification of new substances and classification, packed and labeled of dangerous substances, the sample put under test is not considered classifiable within any group of risk on the basis of its acute toxicity by ingestion.

12. ECOLOGICAL INFORMATION

General Considerations

This product is not dangerous for the environment, but due to its natural physical and chemistry properties it inhibits the growth of microorganisms in its surface

13. THROWING AWAY CONSIDERATIONS

In accordance to the European Norms 91/156/CEE and 199/31/CEE, as well as the law 10/98, of April 21st and its R.D. 1481/2001, of December 27th, those products which are out of quality or rejected can be placed on rubbish dumps for inert materials.

The packing of the Silestone® product will be eliminated following the national norms. In general, it will be deposited in paper or plastic containers if it can be recycled.

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14. INFORMATION FOR SHIPPING

It is not a dangerous product according to the regulation of transport by earth, sea and air.

Number UN	not assigned	Sea transport
Packing group	neither	IMDG/IMO Not restricted

Transport by road and railway	Transport by air
ADR/RID TPC/TPF	ICAO/IATA Not restricted

15. REGULATORY INFORMATION

Silestone is not classified as dangerous substance or product that involves a risk for the health in accordance to the Regulation of Dangerous Substances R.D. 255/2003 and according to European Norms 67/548/EEC, 199/45/EE and their corrections 93/112/EEC, 2001/58/EEC and 2001/60/EEC, by means of which the present Security Data Sheet has been written up (MSDS).

Labeled according to European directors EEC.

PHRASES S:

S36 Use suitable protective clothing.

S37 Use suitable gloves.

S39 Use protection for the eyes /the face.

S56 Store these materials and their respective packages in an appropriate place for the treatment of toxic waste.

16. OTHER INFORMATION.

The information contained in this document is, in accordance to all our actual acknowledges, true and exact. However any recommendation or suggest formulated here are out of our guarantee, because the conditions of use of our product are out of our control. Besides, nothing of contains here can be interpreted like a recommendation to use any product breaking the laws and trials of security or patents come into effect about any subject or its use.

The receiver of our product will have to observe, under its responsibility, the corresponding regulations and norms. In any case the data contained in this Security Data Sheet constitute a guarantee of specific properties or generate any contractual relation.

The present Security Data Sheet (MSDS), is in accordance to the Regulation of Dangerous Substances R.D. 255/2003 and according to European Norms 67/548/EEC, 199/45/EE and their corrections 93/112/EEC, 2001/58/EEC and 2001/60/EEC.

End of MSDS