

QUARTZ SAFETY SHEET

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1 Product and company identification / project

Name of material: Compac Quartz

Use of material: Quartz surface covering designed for indoor use. Specially intended for kitchen worktops, bathroom countertops, floors, wall coverings and other similar uses.

Non-permitted uses: Do not use material without water-cooled work tools.

Name of company: Silicalia Portugal S.A.
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Person responsible for this document: dalbert@compac.es

Telephone No. in case of emergency: Toxicological support: +34 902300255 (in Spain)

2 Hazard identification

No hazards associated with finished quartz products from Compac in CLP (EC) standard No. 1272/2008. Nevertheless, during work on and installation of this material the following information must be taken into account. Please read carefully. Dust generated during manufacturing contains crystalline silica SiO_2 which may be inhaled. Crystalline silica content ranges from 70% - 90%.



STOT RE1



HAZARD

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

PREVENTION

P260: Do not breathe dust generated in cutting, milling and polishing processes.

P264: Wash hands and face thoroughly after handling.

P270: Do not eat, drink or smoke when handling this material.

P284: Use respiratory protection type P3 for particulates.

FIRST-AID MEASURES

P314: Seek medical attention if you feel unwell.

P501: Dispose of waste material as per local regulations.

Classification pursuant to Directive 199/45/EC



Xn

R20 Harmful by inhalation

R48 Danger of serious damage to health by prolonged exposure

S22 Do not breathe dust S38. In case of insufficient ventilation wear suitable respiratory equipment P3

3 Composition/component information

General description of components: This material is composed of inorganic quarried minerals (85-95%), including but not limited to silicas, quartz, cristobalite, crystals and others, polyester resin (5-15%) or natural-origin resins (Bio-resins), pigments and additives (<5%). Crystalline silica content ranges from 70% - 90%.

Material certifications: Greenguard Environment Institute and NSF.

4 First-aid measures

Finished material requires no special first-aid measures. During manufacturing/handling process, the following apply:



Contact with eyes: Keep eyes open and rinse cautiously with water. Contact with skin: Wash with soap and water. Inhalation: Take affected worker to well-ventilated place. Additional forced ventilation may be required if adverse reaction is observed. Ventilate work area thoroughly. Seek medical attention if worker feels unwell.

5 Fire extinguishing methods

Fire resistance	Category: A2flsl
Suitable fire-extinguishing methods:	Any extinguishing agent is suitable. Multi-purpose dry-powder fire extinguishers are recommended.
Personal Protection Equipment:	Depending on the fire zone.

6 Accidental spill measures

This material offers no spill hazards.

7 Handling and storage

Manual handling.

Users are responsible for performing an evaluation of risks in accordance with local Worker Safety Laws.

The following precautions are recommended:

- Use safe handling systems (cranes, hoists, slings, clamping devices, etc.) that are approved and certified. Slings must be protected against breakage as this material is sharper than natural stone and may cut sling materials.
- Use the following Personal protection equipment. Wear helmet, safety footwear, protective goggles and gloves when handling and storing COMPAC quartz materials.

Environmental protection precautions.

Water cooled equipment is recommended to prevent dust generation.

Storage.

No specific conditions are given for safe storage, except that storage should be in a closed and covered space. Avoid strong impacts that might break the material.

8 Exposure controls/ personal protection

Users are responsible for performing an evaluation of the risk of exposure to dust in accordance with local Worker Safety Laws.

Occupational Exposure Limits in mg/m³ 8 hours TWA – Respirable dust – in EU 27¹ + Norway & Switzerland

Country/Authority	Inert dust	Quartz (q)	Cristobalite (q)	Tridymite (t)
Austria / I	6	0.15	0.15	0.15
Belgium / II	3	0.1	0.05	0.05
Bulgaria / III	4	0.07	0.07	0.07
Cyprus / IV	/	10k/Q ²	/	/
Czech Republic / V		0.1	0.1	0.1
Denmark / VI	5	0.1	0.05	0.05
Estonia		0.1	0.05	0.05
Finland / VII		0.2	0.1	0.1
France / VIII		5 or 25 k/Q		
France / IX	5	0.1	0.05	0.05
Germany / X	3	/ ³	/	
Greece / XI	5	0.1	0.05	0.05
Hungary		0.15	0.1	0.15
Ireland / XII	4	0.05	0.05	0.05
Italy / XIII	3	0.025	0.025	0.025
Lithuania / XIV	10	0.1	0.05	0.05
Luxembourg / XV	6	0.15	0.15	0.15
Malta / XVI⁴	/	/	/	/
Netherlands / XVII	5	0.075	0.075	0.075
Norway / XVIII	5	0.1	0.05	0.05
Poland		0.3	0.3	0.3
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		0.15	0.15	0.15
Spain / XXI	3	0.1	0.05	0.05
Sweden / XXII	5	0.1		0.05
Switzerland / XXIII	6	0.15	0.15	0.15
United Kingdom / XXIV	4	0.1	0.1	0.1

¹ Missing information from Latvia – to be completed.

² Q : quartz percentage – K=1

³ Germany has no more OEL for quartz, cristobalite, tridymite. Employers are obliged to minimise exposure as much as possible, and to follow certain protective measures.

⁴ When needed, Maltese authorities refer to values from the UK for OELVs which do not exist in the Maltese legislation.

Country		Adopted by/Law denomination	OEL Name (if specific)
Austria	I	Bundesministerium für Arbeit und Soziales	Maximale ArbeitsplatzKonzentration (MAK)
Belgium	II	Ministère de l'Emploi et du Travail	
Bulgaria	III	Ministry of Labour and Social Policy and Ministry	Limit Values
Cyprus IV	IV	Department of Labour Inspection. Control of factory atmosphere and dangerous substances in factories, Regulations of 1981.	
Czech Republic	V	Governmental Directive n°441/2004	
Denmark	VI	Direktoratet for Arbejdstilsynet Threshold Limit Value	Threshold Limit Value
Finland	VII	National Board of Labour Protection	Occupational Exposure Standard
France	VIII	Ministère de l'Industrie (RGIE)	Empoussiérage de référence
	IX	Ministère du Travail	Valeur limite de Moyenne d'Exposition
Germany	X	Bundesministerium für Arbeit	Maximale ArbeitsplatzKonzentration (MAK)
Greece	XI	Legislation for mining activities	
Ireland	XII	2002 Code of Practice for the Safety, Health & Welfare at Work (CoP)	
Italy	XIII	Associazione Italiana Degli Igienisti Industriali	Threshold Limit Values (based on ACGIH TLVs)
Lithuania	XIV	Dėl Lietuvos higienos normos HN 23:2001	Ilgaliaikio poveikio ribinė vertė (IPRV)
Luxembourg	XV	Bundesministerium für Arbeit	Maximale ArbeitsplatzKonzentration (MAK)
Malta	XVI	OHSa – LN120 of 2003 www.ohsa.org.mt	OELVs
Netherlands	XVII	Ministerie van Sociale Zaken en Werkgelegenheid	Publieke grenswaarden http://www.ser.nl/en/oel_database.aspx
Norway	XVIII	Direktoratet for Arbejdstilsynet	Administrative Normer (8hTWA) for Forurensing i Arbeidsmiljøet
Portugal	XIX	Instituto Portuges da Qualidade, Hygiene & Safety at Workplace NP1796:2004	Valores Limite de Exposição (VLE)
Romania	XX	Government Decision n° 355/2007 regarding workers' health surveillance Government Decision n° 1093/2006 regarding carcinogenic agents (in Annex 3: Quartz, Cristobalite, Tridymite).	OEL
Spain	XXI	Instrucciones de Técnicas Complementarias (ITC) Orden ITC/2585/2007	Valores Limites
Sweden	XXII	National Board of Occupational Safety and Health	Yrkeshygieniska Gränsvärden
Switzerland	XXIII		Valeur limite de Moyenne d'Exposition
United Kingdom	XXIV	Health & Safety Executive	Workplace Exposure Limits

Source: IMA-Europe. Date: May 2010, updated version available at <http://www.ima-europe.eu/otherPublications.html>

Respirable dust in the United States

Country	United States
Substance	Respirable crystalline silica, quartz, cristobalite and tridymite
OSHA PEL	Total dust 30 mg/m ³ / %SiO ₂ +2 Respirable dust (10 mg/m ³ / %SiO ₂ +2 during exposure to substance in 8h work shift (TWA)
ACGIH TLV	0.025 mg/m ³ (8 hr TWA)

Established by / Law	OEL name (if available)
Occupational Safety & Health Administration (OSHA)	Permissible exposure level (PEL)
American Conference of Governmental Industrial Hygienists (ACGIH)	Threshold limit value (TLV)

Dust Exposure Controls during Manufacturing and Installation.

The manufacturer recommends methods involving the use of water in processing and machining this material. Dust generated during manufacturing contains crystalline silica which may be inhaled.

Long-term exposure to dust from cutting and processing without the use of suitable protection may cause serious respiratory diseases including pneumoconiosis such as silicosis, as well as the deterioration of pulmonary capacity and bronchitis, emphysema, etc.

Exposure to dust can be monitored and controlled using suitable control methods such as:

- Machinery and tools using wet processes.
- Natural and/or mechanical ventilation systems that guarantee suitable air renewal levels in the workplace.

Cleaning and maintenance. Use aspiration and cleaning systems that use water. Avoid the use of compressed air, which sets dust in motion. Implement preventive maintenance programmes to guarantee suitable operating and cleaning conditions for work equipment.

- Respiratory protection is for type P3 particulates according to EN 143:2001 and its reviews 143/AC EN 2002 and EN 2005 2005143/AC, including wet processes in order to reduce dust during preparation of COMPAC quartz products.

- Hand protection. The use of gloves is recommended to avoid cutting hazards during handling.

Eye protection. The use of eye protectors or goggles is recommended pursuant to standard EN166:2001.

- Skin protection. Skin protection is not necessary, but the use of suitable clothing to prevent contact with skin is recommended. Wash hands and face with soap and water to eliminate dust before breaks and at the end of shifts.

- Work clothing: do not clean using compressed air. Use vacuum cleaning methods. In

accordance with relevant laws and regulations, any materials failing to comply with quality specifications or reject material must be disposed of in inert waste landfills.

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9 Physical and chemical properties

Aspect:	Solid, depending on catalogue,
Colour:	depending on catalogue
Odour:	Odourless
pH:	N/A
Solubility in water, Water	N/A
absorption (EN-14617-1)	(0.04-0.20) %
Density (EN-14617-1)	2250-2450 kg/m ³
Compression resistance (EN-14617-15)	112 - 248 MPa.
Flexural resistance (EN-14617-2)	29-85 MPa.
Thermal expansion coefficient (EN-14617-11)	38-10-6 °C -1
Self-ignition point	N/A
Flash point	N/A

10 Stability and reactivity

Conditions to be avoided: Avoid contact with surfaces above temperatures of 80° C. Avoid heavy impacts that may cause breakage of material. Avoid use out-of-doors.

Hazardous decomposition products: chemical products with pH above 10 and industrial solvents, after prolonged exposure, may cause loss of colour and physical properties.

11 Toxicological information

Toxicological support hotline: +34 902300255 (in Spain)

Dust generated during manufacturing contains crystalline silica (SiO₂) which may be inhaled.

Long-term and/or short-term massive exposure to crystalline silica may cause serious damage to health, including fibrosis and pneumoconiosis such as silicosis, as well as the deterioration of pulmonary capacity and bronchitis, emphysema, etc. The main symptom of silicosis is the reduction of pulmonary capacity. Persons suffering from silicosis are in greater risk of getting lung cancer.

However, there are no regulations concerning the toxicological risks associated with finished materials.

12 Ecological information

COMPAC quartz contains no agents or substances considered toxic for the environment.

13 Considerations on waste products

In accordance with European Directives 91/156/EEC and 199/31/CEE and Act 10/98 of 21 April and Royal Decree 1481/2001 of 27 December, any materials failing to comply with quality specifications or reject material must be disposed of in inert waste landfills.

The packaging material used for COMPAC quartz must be disposed of pursuant to the regulations of each country. In general, they should be deposited in plastic and/or paper collection bins for subsequent recycling.

14 Transport information

This material is not classified as dangerous according to air, sea and land transport regulations.

UN number	not assigned	Sea transport	
Groupage	None	IMDG/IMO	not restricted
		Air transport	
ADR/RID		ICAO/ATA	not restricted

United States

ADR/RID/IMO/ICAO/US DOT	Name of freight type	Not regulated
	Type of hazard	Not regulated
	ID number	Not regulated
	Groupage	Not regulated

15 Standards framework

This Quartz Safety Data Sheet has been drawn up in accordance with (EC) CLP Regulation No. 1272/2008.

Labelled according to EEC European Directives.

16 Other information

Consult Silicalia Portugal, S.A. before using or supplying this material for uses other than those indicated above.

The information contained in this document is the result of current knowledge up to its review date by Silicalia Portugal, S.A. Nevertheless, we cannot guarantee these recommendations or suggestions when specific conditions of use are outside of our control. In addition, the contents of this Safety Data Sheet should not be construed in any way as a recommendation for use of any product in violation of national laws, safety practices or patents.

It is the responsibility of the user of our materials to ensure that this material complies with any specific local laws or regulations. In no case does the information contained in this Safety Data Sheet constitute a guarantee of specific properties or the establishment of a relation of a contractual nature.

This Quartz Safety Data Sheet has been drawn up in accordance with (EC) CLP Regulation No. 1272/2008. For further information, follow the instructions of the Good Practices Guide for manufacturing published by the manufacturer, Compac, and available at www.compac.es.

For further information, see <http://www.nepsi.eu/> and the Guide to Good Practice for the Agreement on Workers' Health Protection Through the Good Handling and Use of Crystalline Silica and Products Containing it, published by NEPSI.

This Quartz Safety Data Sheet has been approved by and follows the standards of the Agglomerated Stone Association of Europe (A.St.A. Europe).