

1. PRODUCT AND COMPANY IDENTIFICATION
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Product Name: Caesarstone®

SDS Revision Date: December 2016

Product Use: Caesarstone® quartz surfaces are designed for indoor use, particularly kitchen and bathroom worktops, flooring, cladding and other similar uses.

Avoided Uses: Do not fabricate the product by using dry processes which generate dust.

Company	Address	Emergency Phone #
Caesarstone Ltd.	MP Menashe, 38805, Israel www.caesarstone.com sdsinfo@caesarstone.com	+972-4-610-9368
Caesarstone USA Inc.	9275 Corbin Ave., Northridge, CA 91324	+1-818-779-0999
Caesarstone Canada Inc.	8899 Jane St., Concord, Ontario, Canada L4K 2M6	+1-416-322-4000
Caesarstone Australia Pty Ltd.	Unit 3/1 Secombe Place, Moorebank 2170, NSW, Australia	+61-1300-119-119
Caesarstone South East Asia Pte Ltd.	10 Bukit Batok Crescent, #08-06, The Spire, Singapore 658079	+65-6316-1938
Caesarstone (UK) Ltd.	Unit 3, Navigation Park, Enfield EN3 4NQ	+44-800-1588088

2. HAZARDS IDENTIFICATION

The finished Caesarstone® product poses no health hazard. However, dust derived from Fabrication Processes* contains respirable crystalline silica (SiO₂). Hence, workers involved in Fabricating Processes, whether at the fabrication workshop or upon installing and removing/demolishing Caesarstone® slabs are at risk for significant crystalline silica exposure. In this SDS Caesarstone® slabs are referred to also as “products”. During the Fabricating Process, it is necessary to consider the following information.

* “Fabrication Process/es” or “Fabricating” or “Fabrication” means cutting, grinding, chipping, sanding, drilling, polishing, etc. manufacturing processes.

PLEASE READ CAREFULLY

DANGER!



Category 1A (Carcinogenicity) (H350, H372)



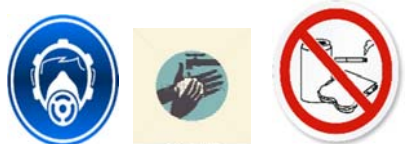
Category 3 (Respiratory tract irritation) (H335)

HAZARD STATEMENTS:¹

(H350) May cause CANCER (inhalation)

(H372) Causes damage to lungs through prolonged or repeated exposure (inhalation)

(H335) May cause respiratory tract irritation



PREVENTION:¹

P202 Do not handle until all safety precautions have been read and understood.

P260+P261 Do not breathe dust generated during the Fabrication Process, installation and removing/demolishing processes.

P264 Wash face and hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P284 Wear respiratory protection for particles (P3).

Refer to Section 7 for Handling and Storage and to Section 8 for dust Exposure Controls.



FIRST AID MEASURES:¹ P314 Get medical advice/attention if you feel unwell.

DISPOSAL:¹ P501 Dispose of remains in accordance with local regulations.

REGULATION (EC) No 1272/2008.

¹ Globally Harmonized System of Classification and Labelling of Chemicals (GHS)-UNECE- GHS (Rev.4) (2011).

Potential Health Effects

Inhalation: Do not breathe dust.

Workers who inhale very small crystalline silica particles are at risk for silicosis – an incurable, progressively disabling and sometimes fatal lung disease. Silicosis results in permanent lung damage. Silica dust particles become trapped in lung tissue, causing inflammation and scarring and reducing the lungs' ability to take in oxygen. Symptoms of silicosis can include shortness of breath, cough and fatigue, and may or may not be obviously attributable to silica. According to USA OSHA alert of Feb 2015, workers exposed to airborne crystalline silica also are at increased risk for lung cancer, chronic obstructive pulmonary disease (COPD) and kidney disease, and according to certain medical schools of thoughts, such workers are also at increased risk for auto-immune diseases (for example rheumatoid arthritis).

Skin and Eye Contact: Mineral dust may produce transitory mechanical irritation to skin and eyes.

Aggravation of Pre-existing Conditions: Persons with impaired respiratory function and chronic respiratory disorders may be more susceptible to the effects of this substance and may be adversely affected by any airborne particulate matter exposure. Smoking can increase the risk of lung injury. Inhalation may increase the progression of tuberculosis. Persons with preexisting skin disorders may be more susceptible to the effects of this material.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	%
Quartz/silica sand	14808-60-7	<93
Cristobalite	14464-46-1	<50
Feldspar	68476-25-5	<65
Glass & mirror	N/A	<43
Polyester resin	Mixture	7.0-14.5
Other material ²	NA	<4.5
Titanium dioxide	13463-67-7	<4
Inorganic pigment mixture ³	NA	<1

Percentage refers to maximum possible per slab; presence and percentage depend on specific slab model.

² Up to 4.5% of material, the specific identity of which is a trade secret of Caesarstone. Exposure control of this material is treated under quartz/silica exposure and does not require additional protective means. Health Hazards related to this material according to OSHA:

Carcinogenic Classification: International Agency for Research on Cancer (IARC): Group 3, not classifiable as to its carcinogenicity to humans. Potential Symptoms: Fibrotic pneumoconiosis. Health Effects: Pneumoconiosis. Affected Organs: Lungs, CVS

³ All pigments used by Caesarstone are certified for food contact (NSF/ANSI Standard 51- Food Equipment Materials)

4. FIRST AID MEASURES

Eye Contact with Dust: Flush immediately with copious amounts of water for a minimum of 15 minutes. Seek immediate medical attention.

Skin Contact with Dust: Wash affected area with soap and plenty of water. Seek medical attention if adverse effects occur.

Inhalation of Dust: Remove person to fresh air. If breathing has stopped, administer artificial respiration and seek immediate medical attention.

Ingestion of Dust: Product in its marketed form is inert. If large amounts are swallowed, seek medical attention.

5. FIRE FIGHTING MEASURES

Auto-ignition: Quartz surfaces products can be combusted only with difficulty.

Fire-resistant:⁴ B, s1 d0/Bfl, s1

Fire Spreading Rating:⁵ class A 0-25

Smoke Developed Rating:⁵ 0-450

Flash Point: 490°C

Flammable Limits in Air (% by Volume): NA

Extinguishing Media: Water, dry chemical, CO₂ and foam

Special Fire Fighting Procedures: Keep personnel away and upwind of fire. Use self-contained breathing apparatus with full face mask.

Unusual Fire and Explosion Hazards: Decomposition products resulting from the polymer and pigments degrading at elevated temperatures include various hydrocarbons, carbon dioxide, carbon monoxide and water. Fumes of metal oxides and mica particles could also be released.

⁴ Based on the European Standard EN 13501-1, which provides the reaction to fire classification procedure for all products and building elements.

⁵ The most widely accepted flame-spread classification system appears in the National Fire Protection Association Life Safety Code, NFPA No. 101.

6. ACCIDENTAL RELEASE MEASURES

The product does not represent a risk of spillage.

Cleanup and Disposal of Spill: Solid slabs can simply be gathered and disposed of as necessary. However, if large amounts of dust or waste are created by cutting during the Fabrication Process, use a HEPA vacuum system or dampen spilled material with water and sweep up wet material to avoid dust generation - DO NOT DRY SWEEP. Wear suitable respiratory protection and protective clothing (see Section 8). If large quantities of this material enter the waterways, contact the Federal, State, or local Waste Management Authority. Dispose of waste in accordance with local, state and federal regulations.

7. HANDLING AND STORAGE

Handling: Wear safety shoes and gloves during manual handling and storage operations of Caesarstone® slabs.⁶ The product is heavy and breakable; handle with care to avoid injury and prevent damage. Look for your local safety regulations related to handling and working with heavy material.

Avoid breathing dust when Fabricating, installing and removing/demolishing the product. Refer to Section 8 for Exposure Control/Personal Protection details.

Storage: Store properly in a closed and covered place. Avoid strong impacts that may cause the material to break.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines: Permissible Exposure Limit (PEL)

There is no provision for any risk associated with the finished Caesarstone® product in the CLP (EC) regulation no. 1272/2008.

However, in Fabrication Processes of the product, dust containing crystalline silica (SiO₂), other minerals, and titanium dioxide may be generated. USA OSHA determined a general dust PEL of 15 mg/m³, a general respirable dust PEL of 5 mg/m³ and a titanium dioxide PEL of 15 mg/m³.

Check the PELs applicable under the regulations of each country where you handle the product.

⁶ According to Standards for Gloves - EN 388: 2003.

PELs for respirable crystalline silica and cristobalite, measured in mg/m³, 8 hours, TWA, are as follows: (These limits may be changed from time to time; you are required to follow local safety announcements.)

Country/Authority	Crystalline Silica (SiO ₂)	Cristobalite & Tridymite
Austria	0.15	0.15
Belgium	0.1	0.05
Czech Republic	0.1	0.1
Denmark	0.1	0.05
Finland	0.2	0.01
France	0.1	0.05
Germany ⁷	-	-
Greece	0.1	0.05
Ireland	0.05	0.05
Israel	0.1	-
Italy	0.025	0.025
Netherlands	0.075	0.075
Norway	0.1	0.05
Poland	0.3	0.3
Portugal	0.025	0.025
Spain	0.1	0.05
Sweden	0.1	0.05
Switzerland	0.15	0.15
United Kingdom	0.1	0.1
Australia	0.1	0.1
South Africa	0.1	-
USA OSHA ^{8,9} PEL ⁹	0.05	0.05
ACGIH ⁹ (2016)	0.025	0.025
NIOSH ⁹	0.05	0.05

Employers should consult with a trained occupational safety and health professional in order to monitor the air in their workplace and in order to determine worker exposures to hazardous dust.

⁷ Germany no longer uses a PEL for quartz, cristobalite and tridymite. Employers are obliged to minimize exposure as much as possible, and to follow certain protective measures.

⁸ See OSHA - 29 CFR 1910.1053.

⁹ Abbreviations: see Section 16.

Exposure Control

Manufacturing and Installation: Dust derived from the Fabrication Processes contains crystalline silica (SiO₂). Exposure to SiO₂ dust without the use of suitable protection may cause serious diseases as detailed in Section 2 and Section 11.

Exposure to dust may be monitored and controlled with suitable control measures such as:

Engineered Controls: CNC machines and wet cutting methods are recommended to reduce generation of dust. When Fabricating the product, installing or removing/demolishing the installed product, use equipment with integral dust collection and/or use local exhaust ventilation in a safe manner to maintain the ambient workplace atmosphere below the relevant PEL.

Cleaning and Maintenance: Use HEPA vacuum and/or water cleaning systems. Never dry sweep or use compressed air.

Preventive Maintenance Programs: Preventive maintenance programs should be developed to ensure a correct procedure for the cleaning and operation of work equipment.

Personal Protective Equipment

Eye/Face Protection: During Fabrication operations use dust-proof goggles or safety glasses with side shields.¹⁰

Hand and Skin Protection: Cotton or leather work gloves¹¹ and steel-toed shoes should be worn when handling and transporting the product. During the Fabrication Process protective clothing should be worn to minimize cuts and/or skin exposure to dust. Wash hands before eating, drinking, smoking, or using toilet facilities. Wash thoroughly after work using soap and water. Promptly remove dusty clothing (which is a source of respirable silica) and launder safely, preferably on site, separately from other clothes, before reuse.

Respiratory Protection: Properly fitted respiratory protection equipment approved by the National Institute for Occupational Safety and Health (NIOSH; USA) for protection against organic vapors and dusts is necessary to avoid inhalation of crystalline silica during the Fabrication Process of the product, and other processes that generate dust. The appropriate respirator selection depends on the type and magnitude of exposure.¹² Use a positive pressure air supplied respirator if there is a potential for an uncontrolled release, exposure levels are not known, or under any other circumstance where air purifying respirators may not provide adequate protection.

¹⁰ According to 29CFR 1910.133 or European Standard EN166.

¹¹ According to Standards for Gloves - EN 388: 2003.

¹² According to 29 CFR 1910.134 for appropriate NIOSH approved respirators, NIOSH Pocket Guide to Chemical Hazards, DHHS (NIOSH) Publication NO. 2001-145 for equipment selection and EN-143: 2001 and its revisions EN-143/AC: 2002, and EN-143/AC: 2005.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Multi-coloured solid engineered stone
Odour:	Odourless
pH:	NA
Melting Point/Freezing Point:	NA
Initial Boiling Point/Boiling Range:	NA
Flash Point:	490°C
Evaporation Rate:	NA
Flammability:	NA
Upper and Lower Flammability/Explosive Limits:	NA
Vapour Pressure:	NA
Vapour Density:	NA
Relative Density (EN-14617-1):	2188-2405 kg/m ³
Solubility:	Insoluble in water
Partition Coefficient of Thermal Expansion (EN-14617-11):	4.9-6.3·10 ⁻⁶ °C ⁻¹
Auto-ignition Temperature:	NA
Decomposition Temperature:	NA
Viscosity:	NA

10. STABILITY AND REACTIVITY

Reactivity: The product is stable under normal conditions of use, storage and transport.

Chemical Stability: Stable at normal temperatures and storage conditions.

Physical Stability: Avoid strong impacts that may cause the material to break.

Incompatibility with Other Materials: This product is incompatible with hydrofluoric acid.

Hazardous Decomposition Products: Thermal decomposition can release various hydrocarbons, carbon dioxide, carbon monoxide and water. Fumes of metal oxides and mica particles could also be released.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

No acute or chronic effects are known from exposure to the intact product.

Primary Routes of Exposure: None for intact product. Inhalation and potential exposure to eyes, hands, lungs or other body parts if contact is made with dust emitted from the Fabrication Process.

Acute Effects: Breathing dust may cause acute mechanical respiratory irritation. Skin and eye contact may cause mechanical irritation.

Respiratory Effects

Crystalline Silica (SiO₂)

Exposure to respirable crystalline particles of a very small size (less than 10 microns) may cause silicosis, an incurable, progressively disabling and sometimes fatal lung disease. Silica dust particles become trapped in lung tissue, causing inflammation and scarring and reducing the lungs' ability to take in oxygen. Symptoms of silicosis can include progressive shortness of breath, cough and fatigue. Safety measures including wet processing and the use of effective respiratory protection will reduce the burden of inhaled dust and prevent the disease.

Titanium Dioxide (TiO₂)

May cause lung fibrosis and nuisance particulate accumulation in lungs.

Carcinogenicity: The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens.

Material	IARC	NTP	OSHA	ACGIH
Silica, Crystalline (quartz and cristobalite)	Group 1 <i>carcinogenic to humans</i>	known to be a carcinogen	Yes regulates as carcinogen	A2 suspected human carcinogen

Teratogenicity: No data

Mutagenicity: No data

Name of toxicologically synergistic products: No data

Toxicity Testing Data

Crystalline Silica: Inhalation (human) LCLo: 0.3mg/m³/10Y
Inhalation (human) TCLo: 16mppcf/8H/17,9Y
Intermittent; focal fibrosis, (pneumoconiosis), cough, dyspnea
Inhalation (rat) TCLo: 50mg/m³/6H/71W
Intermittent; liver – tumors
Oral LD₅₀ RAT: 500 mg/kg

Sensitization: No Data

Mutagenicity: No Data

Reproductive Effects: No Data

Developmental Effects: No Data

12. ECOLOGICAL INFORMATION

Toxicity is expected to be low, based on the insolubility of the product and of the silica dust in water. Caesarstone® does not contain ecotoxins and also due to its physical-chemical nature, it inhibits the growth of micro-organisms on its surface.

Environmental Fate: No data

Environmental Toxicity: No data

ISO 14001 Certification: Caesarstone® is ISO 14001 certified for Environmental Management Systems.

GREENGUARD Certification: Caesarstone® is compliant with the GREENGUARD standard.

Quartz (14808-60-7)

Environmental Fate: No data

Environmental Toxicity: No data

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Preferred options for disposal are (1) recycling, and (2) landfill. All disposal must be carried out in accordance with all the laws, requirements and guidelines applicable in the location of the user of Caesarstone® products.¹³ Performance of landfill should be made in an appropriate waste disposal facility approved by local authorities.

14. TRANSPORTATION INFORMATION

ADR¹⁴/ RID¹⁴/ IMO¹⁵/ ICAO¹⁶/ US DOT¹⁷	Proper Shipping Name	Not Regulated
	Hazard Class	Not Regulated
	ID Number	Not Regulated
	Packaging Group	Not Regulated

15. REGULATORY INFORMATION

This Safety Data Sheet (SDS) is according to (EC) No 1272/2008 and the CLP Regulation.

U.S. Federal Regulations:

SARA Title III¹⁸ Hazard Classes:

Fire Hazard: No

Reactive Hazard: No

Release of Pressure: No

¹³ 91/156/EEC and 199/31/CEE and the law 10/98, April 21 and RD 1481/2001, 27 December.

¹⁴ ADR and RID stand for the European Agreements Concerning the International Carriage of Dangerous Goods by Rail (RID) and by Road (ADR) and the Joint meeting of RID Safety Committee and the Working Party on the Transport of Dangerous Goods (WP.15). The RID Safety Committee and WP.15 administer the European Agreements governing the Regulations Concerning the International Transport of Dangerous Goods by Rail (RID) and Road (ADR), respectively.

¹⁵ International Classes for Dangerous Goods

¹⁶ International Civil Aviation Organization

¹⁷ Department of Transportation

¹⁸ Superfund Amendments and Reauthorization Act - Title III of SARA is the Emergency Planning and Community Right-To-Know Act (EPCRA).

Acute Health Hazard: No

Chronic Health Hazard: Yes

TSCA:¹⁹ All components of this product are on the TSCA inventory or are exempt from TSCA Inventory requirements.

U.S. State Regulations: California Prop 65 List: Crystalline silica is classified as a substance known to the State of California to be a carcinogen.

Inventory Information: The substances in this document have been checked against the EINECS,²⁰ ELINCS,²¹ and the NLP²² list. Substances not identified on these inventories are exempt from notification requirements. (The EINECS number for Quartz: 238-878-4.)

16. OTHER INFORMATION

Hazard Ratings according to: NFPA(R)²³ and HMIS²⁴

Health Hazard: 1

Flammability: 0

Reactivity: 0

Key Legend Information:

ACGIH American Conference of Governmental Industrial Hygienists

IARC International Agency for Research on Cancer

OSHA Occupational Safety and Health Administration

NA Not Applicable

NTP National Toxicology Program

PEL (OSHA) Permissible Exposure Limit

STEL Short Term Exposure Limit

¹⁹ Section 8 (b) of the Toxic Substances Control Act (TSCA) requires EPA to compile, keep current and publish a list of each chemical substance that is manufactured or processed, including imports, in the United States for uses under TSCA inventory.

²⁰ European Inventory of Existing Commercial Chemical Substances

²¹ European List of Notified Chemical Substances

²² No Longer Polymer

²³ National Fire Protection Association

²⁴ Hazardous Materials Identification System

TLV Threshold Limit Value
TWA Time Weighted Average

References:

- Registry for Toxic Effects of Chemical Substances (RTECS), 2006.
- OSHA/NIOSH Worker Exposure to Silica during Countertop Manufacturing, Finishing and Installation — <http://www.cdc.gov/niosh/docs/2015-106/pdfs/2015-106.pdf>
- NIOSH Hazard Review — Health Effects of Occupational Exposure to Respirable Crystalline Silica, April 2002.
- NTP Eleventh Report on Carcinogens, 2005.
- IARC Monograph Volume 68, Silica, Some Silicates and Organic Fibres, 1997.
- Hazardous Substances Data Bank (HSDB), 2006.
- Documentation of the TLV — Silica, Crystalline: x-Quartz and Cristobalite, American Conference of Governmental Industrial Hygienists, 2006.

The information contained herein is believed to be correct and represents the best information currently available for Caesarstone®. However, Caesarstone makes no warranties, expressed or implied, of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from the use thereof. Under no circumstances does the data contained in this Safety Data Sheet constitute a guarantee of specific properties other than such properties explicitly mentioned in this SDS, or create any contractual relationship. The user of the product only is responsible for determining the suitability of Caesarstone's products for its particular application.

It is the exclusive responsibility of the recipient of our product to find out the applicable laws, rules, practices and regulations prior to using the product and to comply with them in all respects. You should note that applicable national and international regulations and laws may change from time to time and it is your responsibility to follow such changes.

The contents of this Safety Data Sheet must not be interpreted as a recommendation to use any product in violation of the laws or safety practices.

Further information is available at <https://www.osha.gov/silica/> and at <http://www.nepsi.eu/> and in 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. See also the Caesarstone website for safety instructions and recommendations at: www.caesarstone.com.