caesarstone

MASTER™ OF STONE

Caesarstone Mineral™ & Caesarstone Quartz Surfaces Safety Data Sheet

October 2023

1. Product and Company Identification

Product Name: Caesarstone® surfaces

This Safety Data Sheet (SDS) relates to Caesarstone Mineral™ and Caesarstone quartz surfaces.

SDS Revision Date: October 2023

Product Use: Caesarstone® surfaces are designed for indoor use, particularly kitchen and bathroom countertops, backsplashes, and other similar uses.

Avoided Uses: Do not fabricate the product, which generates hazardous dust, by using dry processes (such as sawing, grinding, routing, drilling and sanding, etc.) which generate dust.

Information on manufacturer and provider of the SDS:

COMPANY	ADDRESS	EMERGENCY PHONE
Caesarstone Ltd. (manufacturer)	MP Menashe, 3780400, Israel www.caesarstone.com sdsinfo@caesarstone.com	+972-4-610-9368
Caesarstone USA Inc.	1401 W. Morehead, Charlotte, NC 28208, USA	+1-818-779-0999
Caesarstone Canada Inc.	350 Caldari Rd., Concord, Ontario L4K 4J4, Canada	+1-416-322-4000
Caesarstone Australia Pty Ltd.	Moorebank Business Park, Warehouse 3a East, 400 Moorebank Ave, Moorebank, NSW 2170, Australia	+61-13 11 26 / 13 11 26
Caesarstone South East Asia Pte Ltd.	10 Bukit Batok Cresent, #08-06, The Spire, Singapore 658079	+65-6316-1938
Caesarstone (UK) Ltd.	Unit 3, Navigation Park, Enfield EN3 4NQ, United Kingdom	+44-800-1588088
Caesarstone Scandinavia AB	Ölltorps Industriområde 6 524 32 HERRLJUNGA Sweden	+46 (0) 513-659320

2. Hazards Identification

Substance or mixture classification: Crystalline silica (SiO_2) content.
The finished Caesarstone® is an inert, stable product that does not release hazardous materials in its fully intact form. However, dust derived from Fabrication Processes* contain respirable crystalline silica (SiO2). Hence, workers involved in Fabricating Processes, whether at the fabrication workshop or upon installing and removing/demolishing Caesarstone® slabs without correct safety measures in place, are at risk for significant respirable crystalline silica exposure which can cause serious illnesses including silicosis, lung cancer, chronic obstructive pulmonary disease (COPD), and, rarely, kidney disease and according to certain medical schools of thought, auto-immune disease. Additionally, a recent study determined that some potentially irritant and carcinogenic volatile organic compounds may be generated during dry Fabrication Processes of engineered stone. Do not fabricate the product by using dry processes.

* “Fabrication Process/es” or “Fabricating” or “Fabrication” means cutting, grinding, chipping, sanding, drilling, polishing, etc. manufacturing processes, including during installation or removal of the product.

In this SDS Caesarstone® slabs are referred to also as “products”.

During the Fabrication and installation of the product, it is necessary to consider the following information:

LABEL ELEMENTS - PLEASE READ CAREFULLY:

REGULATION (EC) No 1272/2008 (CLP) GHS ver. 7:
The following relates to the formation of dust, e.g., during Fabrication Processes.

DANGER!

Category 1A (H350)
Category 1 (H372)

Category 3 (H335)

HAZARD STATEMENTS:[1]

- (H350) May cause CANCER (inhalation) - Category 1A
  Specific target organ toxicity following repeated exposure (STOT RE)
- (H372) Causes damage to lungs through prolonged or repeated exposure (inhalation) - Category 1
  Specific target organ toxicity - single exposure (STOS-SE)
- (H335) May cause respiratory tract irritation - Category 3

[1] Globally Harmonized System of Classification and Labelling of Chemicals (GHS)-UNECE-GHS (Rev.7) (2017).

PREVENTION:[1]

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260+P261 Do not breathe dust generated in the Fabrication, installation and/or removing/demolition processes including during cutting, grinding, and polishing.
- P264 Wash face and hands thoroughly after handling and fabricating.

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

- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P284 In case of inadequate ventilation, wear respiratory protection for particles and vapors (P3/N95 or higher).

- P272 Contaminated work clothing should not be allowed out of the workplace.
- P263 Wash contaminated clothing before reuse.

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

FIRST AID MEASURES:[1]

- P314 Get medical advice/attention if you feel unwell.
- P304+340 If inhaled, remove person to fresh air and keep comfortable for breathing.

DISPOSAL:[1]

P501 Dispose of remains in accordance with local regulations.
Refer to Section 13 for Disposal Considerations.

CALIFORNIA PROPOSITION 65 WARNING: This product contains chemicals, including silica and titanium dioxide, that become airborne and respirable when fabricating the product and are classified by the State of California as causing cancer and birth defects. For more information see www.p65warnings.ca.gov.

[1] Globally Harmonized System of Classification and Labelling of Chemicals (GHS)-UNECE-GHS (Rev.7) (2017).

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 the 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, rarely, kidney disease. According to certain medical schools of thought, such workers are also at increased risk for auto-immune disease (for example rheumatoid arthritis). Risk of disease is dependent on the duration and level of exposure. Additionally, a recent study determined that some potentially irritant and carcinogenic volatile organic compounds may be generated during dry Fabrication Processes of engineered stone. Do not fabricate the product by using dry processes.

SKIN AND EYE CONTACT:

Mineral dust may produce transitory mechanical irritation to the skin and eyes.

AGGRAVATION OF PRE-EXISTING CONDITIONS:

Persons with chronic respiratory disorders or impaired respiratory function 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.

OTHER HAZARDS:

This mixture does not meet bioaccumulative of toxic (PBT) or very persistent or very bioaccumulative (vPvB) standards according to Regulation (EC) No. 1907/2006, Annex XIII.

3. Composition/Information on Ingredients

SUBSTANCES:

N/A

MIXTURES:

The final product does not release hazardous materials or particles after installation.

The product is produced using naturally occurring minerals such as feldspar, quartz and cristobalite in different concentrations depending on the product, mixed with polyester resin and different inorganic materials and titanium dioxide.

Substances presenting a health or environmental hazard within the meaning of Regulation (EC) No 1272/2008 according to 3 groups of crystalline silica content:

Caesarstone Quartz Surfaces

Crystalline silica content: Si 90 ~41-90% SiO_2

This can be identified on the slab label and/or back side printing.

Ingredient Name	CAS Number	%	Classification - Regulations (EC) No. 1272/2008
Crystalline silica (including <50% cristobalite)	14808-60-7 14464-46-1	~41-90	STOT RE 2, H373 STOT SE 3, H335 Carc. 1A, H350i
Polyester resin	Mixture	7-15	Not classified
Titanium dioxide	13463-67-7	<4	STOT SE 3, H335 Carc. 2, H351i
Inorganic pigment mixture	N/A	<1	-
Hydrous silicate mineral	14807-96-6	<4.2	Not classified

Caesarstone Mineral Surfaces

Crystalline silica content: Si 40 ~11-40% SiO_2

This can be identified on the slab label and/or back side printing.

Ingredient Name	CAS Number	%	Classification - Regulations (EC) No. 1272/2008
Crystalline silica (including <25% cristobalite)	14808-60-7	~11-40	STOT RE 2, H373 STOT SE 3, H335 Carc. 1A, H350i
Polyester resin	Mixture	7-15	Not classified
Titanium dioxide	13463-67-7	<4	STOT SE 3, H335 Carc. 2, H351i
Inorganic pigment mixture	N/A	<1	-
Hydrous silicate mineral	14807-96-6	<4.2	Not classified

Crystalline silica content: Si 10 ~1-10% SiO_2

This can be identified on the slab label and/or back side printing.

Ingredient Name	CAS Number	%	Classification - Regulations (EC) No. 1272/2008
Crystalline silica	14808-60-7	~1-10	STOT RE 2, H373 STOT SE 3, H335 Carc. 1A, H350i
Polyester resin	Mixture	10-14	Not classified
Titanium dioxide	13463-67-7	<1	STOT SE 3, H335 Carc. 2, H351i
Inorganic pigment mixture	N/A	<1	-

For final assurance of silica percentage, please see slab label and/or back side printing.
Percentage refers to maximum possible per slab; presence and percentage depend on specific slab model.
Refer to Section 8 for mixture components subject to occupational exposure limits.

4. First Aid Measures

General advice:

Caesarstone® surfaces are not hazardous as shipped. However, Fabrication of the Product, including sawing, grinding, routing, drilling and sanding can generate dust, and the following apply:

EYE CONTACT WITH DUST:

Rinse eyes with plenty of room-temperature water for at least 15 minutes. Seek immediate medical attention. Have an emergency eyewash station available in areas where the product is Fabricated.

SKIN CONTACT WITH DUST:

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

INHALATION OF DUST:

Do not inhale dust generated in the Fabrication, installation, and/or removing/demolition process. Remove person to fresh air. If breathing has stopped, administer artificial respiration. Seek immediate medical attention.

INGESTION OF DUST:

The product in its marketed form is inert. If large amounts are swallowed, seek medical attention.

Most important symptoms, acute and delayed effects:

INHALATION:

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 the 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, rarely, kidney disease, and according to certain medical schools of thought, such workers are also at increased risk for auto-immune disease (for example rheumatoid arthritis). Risk of disease is dependent on the duration and level of exposure.

5. Fire Fighting Measures

EXTINGUISHING MEDIA:

Water, dry chemical, CO_2 and foam.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Not flammable.

ADVICE FOR FIREFIGHTERS:

Keep personnel away and upwind of fire. Use self-contained breathing apparatus with full face mask.

6. Accidental Release Measures

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES; ENVIRONMENTAL PRECAUTIONS:

N/A - The finished product does not represent a risk of spillage.

CLEANUP AND DISPOSAL OF SPILL:

Solid slabs can simply be gathered, double bagged, and disposed of as necessary. However, if large amounts of dust or waste is created by cutting during Fabrication Processes, use a high efficiency particulate air (HEPA) vacuum 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. 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.

Refer to Section 8 for personal protective equipment and to Section 13 for waste treatment.

7. Handling and Storage

MANUAL HANDLING:

Wear safety shoes and gloves[2] during manual handling and storage operations of Caesarstone® slabs. The product is heavy and breakable; handle with care to avoid injury and prevent damage. Use certified safe handling systems with appropriate adjustments to the product.

FABRICATING, INSTALLING AND REMOVING:

When Fabricating (cutting, grinding, polishing, drilling, etc. processes) the product, installing or removing/demolishing the installed product, use equipment with integrated water delivery system and integral dust collection and/or use local exhaust ventilation to maintain the ambient workplace atmosphere below the relevant occupational exposure limits.

Do not fabricate the product by using dry processes, which generate hazardous dust. Do not use dry sweeping or compressed air for cleanup, as it causes dust to be airborne. Avoid breathing dust when Fabricating, installing or removing/demolishing the product.

Fabricate in a well-ventilated area or use local exhaust venting to maintain the ambient workplace atmosphere below the relevant occupational exposure limits. Use respiratory protective equipment and other personal protective equipment. Restrict access to hazardous dust areas. Wash face and hands thoroughly after fabricating, installing or removing/demolishing the product. Do not eat, drink or smoke when fabricating this product. Leave working clothes at the workplace and wash separately.

Employers should consult with a trained occupational safety and health professional in order to assess the employer's engineering controls and crystalline silica programs, policies and procedures and monitor the air in their workplace and in order to determine worker exposures to hazardous dust and comply with applicable local regulations.

Refer to Section 8 for Exposure Control and Personal Protection details.

It is also recommended to follow Caesarstone Good Practice Guide relating to occupational health and safety in a respirable crystalline silica dust (RCS) environment at: mos.caesarstone.com.

STORAGE:

Store properly in a closed and covered area, as UV radiation may affect the material.
Avoid strong impacts that could break the material.

SPECIFIC END USES:

No specific recommendations for end users.

[2] According to Standards for Gloves - EN 388: 2003.

8. Exposure Controls/Personal Protection

CONTROL PARAMETERS - OCCUPATIONAL EXPOSURE LIMITS (OEL):

There is no provision for any risk associated with the finished Caesarstone® product.

However, in cutting, grinding, polishing, drilling, etc. processes, dust containing crystalline silica (SiO2), other minerals and titanium dioxide may be generated. Additionally, a recent study determined that some potentially irritant and carcinogenic volatile organic compounds may be generated during dry Fabrication Processes of engineered stone.

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. Data collected during these evaluations should be compared with OELs applicable to each country.

OELs for respirable crystalline silica and cristobalite/tridymite, measured in mg/m^3 for an 8-hour Time Weighted Average (TWA), are included in the following table. These limits may be changed from time to time and competent health and safety professionals or the local regulatory authority of the country in question should be consulted for the most up to date information.

EUROPEAN UNION	CRYSTALLINE SILICA (SiO_2)	CRISTOBALITE & TRIDYMITE
Austria	0.05	0.15
Belgium	0.1	0.05
Czech Republic	0.1	0.1
Denmark	0.1	0.05
Finland	0.05	0.05
France	0.1	0.05
Germany[3]	0.05	0.05
Greece	0.1	0.05

[3] Assessment criterium. Reference value. Germany no longer uses an OEL for quartz, cristobalite and tridymite. Employers are obliged to minimize exposure as much as possible, and to follow certain protective measures.

EUROPEAN UNION	CRYSTALLINE SILICA (SiO_2)	CRISTOBALITE & TRIDYMITE
Ireland	0.1	0.05
Israel	0.1	--
Italy	0.05	0.05
Netherlands	0.075	0.075
Norway	0.1	0.05
Poland	0.1	0.1
Portugal	0.025	0.025
Spain	0.05	0.05
Sweden	0.1	0.05
Switzerland	0.15	0.15
United Kingdom	0.1	0.1
European Directive[4]	0.1	--

[4] European Directive 2004/37/EC was modified by European Directive 2017/2398 dated 27/12/2017 to include a limit value for occupational exposure to the respirable fraction of crystalline silica of 0.1 mg/m^3.

AUSTRALIA	CRYSTALLINE SILICA (SiO_2)	CRISTOBALITE & TRIDYMITE
Australia	0.05	0.05[5]
New Zealand	0.05	0.05

US & CANADA	CRYSTALLINE SILICA (SiO_2)	CRISTOBALITE & TRIDYMITE
Canada[6]	0.025 - 0.1 mg/m^3	0.025 - 0.05 mg/m^3
USA, OSHA[7,8,9] PEL[8]	0.05	0.05
ACGIH - TLV[8,10] (2019)	0.025	0.025
NIOSH - REL[8] (10-hour TWA)	0.05	0.05

SOUTH AFRICA	CRYSTALLINE SILICA (SiO_2)	CRISTOBALITE & TRIDYMITE
South Africa	0.1	--

[5] Safe Work Australia recommended Dec 2019. Please refer to your respective State regulator.

[6] Range relates to different Canadian workplace health and safety regulations per province.

[7] See OSHA - 29 CFR 1910.1053.

[8] Abbreviations: see Section 16.

[9] OSHA's 8-hour TWA Permissible Exposure Limit for particles not otherwise regulated is 5 mg/m^3 for the respirable fraction and 15 mg/m^3 for total dust.

[10] The ACGIH's 8-hour TWA Threshold Limit Value for particles (insoluble or poorly soluble) not otherwise specific is 3 mg/m^3 for respirable particles and 10 mg/m^3 for inhalable particles.

Exposure Control

MANUFACTURING AND INSTALLATION:

Dust derived from the manufacturing processes could contain crystalline silica (SiO_2). Long-term exposure to crystalline silica (SiO_2) dust without the use of suitable protection may cause serious diseases as detailed in Section 2 and Section 11.

When Fabricating (cutting, grinding, polishing, drilling, etc. processes) the product, installing or removing/demolishing the installed product, use equipment with integrated water delivery system and integral dust collection and/or use local exhaust ventilation to maintain the ambient workplace atmosphere below the relevant occupational exposure limits.

Do not fabricate the product by using dry processes, which generate hazardous dust. Do not use dry sweeping or compressed air for cleanup, as it causes dust to be airborne. Avoid breathing dust when Fabricating, installing or removing/demolishing product.

Fabricate in a well-ventilated area and use local exhaust venting and other engineering controls to maintain the ambient workplace atmosphere below the relevant occupational exposure limits. Use respiratory protective equipment and other personal protective equipment. Restrict access to hazardous dust areas. Wash face and hands thoroughly after fabricating, installing or removing/demolishing the product. Do not eat, drink or smoke when fabricating this product. Leave working clothes at the workplace and wash separately.

Employers should consult with a trained occupational safety and health professional in order to assess the employer's engineering controls and crystalline silica programs, policies and procedures and monitor the air in their workplace and in order to determine worker exposures to hazardous dust and comply with applicable local regulations.

It is also recommended to follow the Caesarstone Good Practice Guide relating to occupational health and safety in a respirable crystalline silica dust (RCS) environment at: mos.caesarstone.com.

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

ENGINEERING CONTROLS:

CNC machines, wet cutting methods, and local exhaust ventilation 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 occupational exposure limits.

CLEANING AND MAINTENANCE:

Use HEPA vacuum and/or water cleaning systems. Never dry sweep or use compressed air, which cause dust to be airborne.

PREVENTIVE MAINTENANCE PROGRAMMES:

Preventive maintenance programmes should be developed to ensure a correct procedure for the cleaning and operation of work equipment.

Personal Protective Equipment

RESPIRATORY PROTECTION:

Properly fitted respiratory protection equipment approved by the National Institute for Occupational Safety and Health (NIOSH; USA) for protection against dusts and organic vapours is necessary to avoid inhalation of crystalline silica and volatile organic compounds 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.[11] 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.

EYE/FACE PROTECTION:

During Fabrication and installation, use dust-proof goggles or safety glasses with side shields.[12] Have an emergency eyewash station available in areas where the product is Fabricated.

HAND AND SKIN PROTECTION:

Cotton or leather work gloves[13] and steel-toed shoes should be worn when handling and transporting the product. During the Fabrication and installation Processes protective clothing should be worn to minimise skin exposure to dust and/or cuts. Wash hands before eating, drinking, smoking, or using toilet facilities. Wash thoroughly after work using soap and water. Promptly remove dusty clothing and launder safely, preferably on site, separately from other clothes, before reuse. Dusty clothing is a source of respirable silica and dusty clothing should be handled cautiously.

MEDICAL SURVEILLANCE:

Each worker should undergo relevant health surveillance prior to exposure and at regular intervals thereafter.

In no case are these safe and health measures and guides exhaustive or substitutive of the legal obligations in regards of health and safety under the applicable local regulations.

[11] 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.

[12] According to 29 CFR 1910.133 or European Standard EN166

[13] According to Standards for Gloves - EN 388: 2003

9. Physical and Chemical Properties

- **Physical state:** Solid engineered stone
- **Appearance:** Multi-coloured solid engineered stone
- **Odour:** Odourless
- **pH:** *N/A
- **Melting Point/Freezing Point:** *N/A
- **Initial Boiling Point/Boiling Range:** *N/A
- **Flash Point:** *N/A
- **Evaporation Rate:** *N/A
- **Flammability:** *N/A
- **Upper and Lower Flammability/Explosive Limits:** *N/A
- **Fire Resistance (EN 13501-1):** B-s-1, d-0
- **Relative Density (EN-14617-1):** >2100 kg/m^3
- **Kinematic Viscosity:** *N/A
- **Solubility:** Insoluble in water
- **Partition Coefficient of Thermal Expansion (EN-14617-11):** ≤ 52 ·10-6 ^oC-1
- **Vapour Pressure:** *N/A
- **Vapour Density:** *N/A
- **Auto Ignition Temperature:** *N/A
- **Decomposition Temperature:** *N/A
- **Particle characteristics:** *N/A
- **Viscosity:** *N/A
- **Fire Spreading Rating (ASTM E84):** Class A - FSI:0-25, SDI: 0-450

*N/A: there is no applicable information related to the finished product.

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.

POSSIBILITY OF HAZARDOUS REACTIONS:

None

CONDITIONS TO AVOID:

Avoid subjecting the product to high temperature, as the material may deteriorate.
Avoid strong impacts that may cause the material to break.
Store properly in a closed and covered area, as UV radiation may affect the material.

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.

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 or other body parts if contact is made with dust and vapours emitted from Fabrication Processes, and/or for operations involving the removal of the installed product.

ACUTE EFFECTS:

Breathing dust may cause acute mechanical respiratory irritation, including coughing, wheezing or difficulty breathing.

SKIN CORROSION/IRRITATION:

Skin contact may cause mechanical irritation.

SERIOUS EYE DAMAGE/IRRITATION:

Eye contact may cause mechanical irritation.

RESPIRATORY EFFECTS:

- **Crystalline Silica (SiO_2)**
  - ***Silicosis*** - Repeated, long-term 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. Recent studies have reported that workers dry cutting/fabricating engineered stone can be exposed to high concentration of irregularly shaped ultrafine crystalline silica particles and that these exposure may result in a shorter latency period/accelerated decline in lung function. Safety measures including wet processing and the use of effective respiratory protection will reduce the burden of inhaled dust and prevent the disease.
  - ***Acute silicosis*** - can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss. Acute silicosis is fatal.

- **Titanium Dioxide (TiO_2)**

  Exposure to respirable titanium dioxide particles may cause lung fibrosis and nuisance particulate accumulation in lungs. NIOSH recommends exposure limits of 2.4 mg/m^3 for fine TiO_2 as time-weighted average (TWA) concentrations for up to 10 hours per day during a 40-hour work week. These recommendations represent levels that over a working lifetime are estimated to reduce risks of lung cancer to below 1 in 1,000.

- **Volatile Organic Compounds**

  A recent study determined that some potentially irritant and carcinogenic volatile organic compounds may be generated during dry cutting of engineered stone. Do not fabricate the product by using dry processes.

CARCINOGENICITY:

The following components are listed by IARC, NTP, OSHA, ACGIH, WES NZ, HCIS or EU (Directive 2004/37/CE) as carcinogens.

Material	IARC	NTP	OSHA	ACGIH	WES AU/NZ	HCIS	EU
Silica, Crystalline (quartz and cristobalite)	Group 1 carcinogenic to humans	Known to be a carcinogen	Yes regulates as carcinogen	A2 Suspected Human Carcinogen	Confirmed Carcinogenic	Category 1A	Carcinogenic Category 1A

TERATOGENICITY: No data.

MUTAGENICITY: No data.

NAME OF TOXICOLOGICALLY SYNERGISTIC PRODUCTS: No data.

SPECIFIC TARGET ORGAN TOXICITY SINGLE AND REPEATED EXPOSURE:

Silicosis is caused by the inhalation and retention of respirable crystalline silica dust. Silicosis can exist in several forms, chronic and accelerated (acute). Chronic silicosis is the most common form of silicosis and can occur after many years of exposure to relatively low levels of airborne respirable crystalline silica dust. It is further defined as either simple or complicated silicosis. Simple silicosis is characterised by lung lesions (shown as radiographic opacities) less than 1 centimetre in diameter, primarily in the upper lung zones. Simple silicosis may not be associated with symptoms, detectable changes in lung function, or disability. Simple silicosis may be progressive and may develop into complicated silicosis or progressive massive fibrosis (PMF). Complicated silicosis or PMF is characterised by lung lesions (shown as radiographic opacities) greater than 1 centimetre in diameter. Symptoms, if present, are shortness of breath, wheezing, cough, and sputum production.

A recent study determined that some potentially irritant and carcinogenic volatile organic compounds may be generated during dry cutting of engineered stone. Do not fabricate the product by using dry processes.

TOXICITY TESTING DATA:

Crystalline Silica

Inhalation (human) LCLo: 0.3 mg/m^3/10Y
Inhalation (human) TCLo: 16mppcf/8H/17,9Y
Intermittent: focal fibrosis, (pneumoconiosis), cough, dysponea
Inhalation (rat) TCLo: 50mg/m^3/6H/71W
Intermittent; liver - tumors
Oral LD50 RAT: 500 mg/kg

SENSITISATION: No data.

REPRODUCTIVE EFFECTS: No data.

DEVELOPMENTAL EFFECTS: No data.

12. Ecological Information

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

ENVIRONMENTAL TOXICITY:

This product is not known to be toxic to the environment. No applicable data is available regarding persistence and degradability, bioaccumulative potential, mobility in soil, endocrine disrupting properties or other adverse effects.

RESULTS OF PBT AND vPvB ASSESSMENT:

This mixture does not meet bioaccumulative of toxic (PBT) or very persistent or very bioaccumulative (vPvB) standards according to Regulation (EC) No. 1907/2006, Annex XIII.

ISO 14001 CERTIFICATION:

Caesarstone® is ISO 14001 certified for Environmental Management Systems.

GREENGUARD CERTIFICATION:

Caesarstone® is compliant with GREENGUARD standard.

NSF CERTIFICATIONS:

Please refer to NSF website at www.nsf.org regarding products certified by NSF.

13. Disposal Considerations

WASTE DISPOSAL METHOD:

Preferred options for disposal are (1) recycling, and (2) landfill. Performance of landfill should be made in an appropriate waste disposal facility approved by local authorities.

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.[14]

The product packaging material should be disposed in dedicated recycling bins, according to applicable local regulations.

14. Transportation Information

The product is not classified as dangerous according to land transport, air and sea regulations.

ADR[15]/UN Number/ RID[15]/IMO[16]/ ICAO[17]/US DOT[18]/ Packaging group	Proper Shipping Name	Not Regulated
	Hazard Class	Not Regulated
	ID Number	Not Regulated
	Packaging Group	Not Regulated
	Environmental hazards	No
	Special precautions for user	Not Regulated

[14] 91/156/EEC and 199/31/CEE and the law 10/98, April 21 and RD 1481/2001, 27 December.

[15] 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.

[16] International Classes for Dangerous Goods

[17] International Civil Aviation Organization

[18] Department of Transportation

15. Regulatory Information

This Safety Data Sheet (SDS) is according to (EC) No 1272/2008, (EC) No. 2020/878 and the CLP Regulation.

INTERNATIONAL LEGISLATION:

Globally Harmonized System of Classification and Labelling of Chemicals (GHS) (Latest 2017 edition) - UN

U.S. FEDERAL REGULATIONS:

- **SARA Title III[19] Hazard Classes:**
  - **Fire Hazard:** No
  - **Reactive Hazard:** No
  - **Release of Pressure:** No
  - **Acute Health Hazard:** No
  - **Chronic Health Hazard:** Yes
- **TSCA:**[20]

  All components of this product are on the TSCA inventory or are exempt from TSCA inventory requirements.
- **OSHA COMMUNICATION STANDARD:**

  This product meets the definition of a health hazard under 29 CFR Section 1910.1200.
- **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. Crystalline silica is on the Right-to-Know substance lists for New Jersey, Massachusetts, and Pennsylvania.
- **INVENTORY INFORMATION:**

  The substances in this document have been checked against the EINECS,[21] ELINCS,[22] and the NLP[23] list. Substances not identified on these inventories are exempt from notification requirements.
  (The EINECS number for Quartz: 238-878-4.)

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

[20] 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.

[21] European Inventory of Existing Commercial Chemical Substances

[22] European List of Notified Chemical Substances

[23] No Longer Polymer

EUROPEAN REGULATIONS:

- Regulation (EC) 1907/2006 (REACH) OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006, concerning the Registration, Evaluation, Authorization and Restriction of Chemicals, updated according to Regulation (EU) 2015/830 of 28 May 2015, which modifies Regulation EC) No. 1906/2006.
- European Directive 2004/37/EC, modified by European Directive 2017/2398 dated 27/12/2017.
- Regulation (EC) No. 1907/2006 REACH, Annex XIV List of substances subject to authorization, with its later modifications: Not present, or not present in regulated quantities.
- Regulation (EC) No. 1272/2008 (CLP) OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures.
- REGULATION (EU) 2016/918 OF THE COMMISSION of 19 May 2016 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No. 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures.

AUSTRALIA AND NEW ZEALAND REGULATIONS:

- Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals: http://hcis.safeworkaustralia.gov.au/
- New Zealand Workplace Exposure Standards (WES): https://worksafe.govt.nz
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

16. Other Information

The product should be used according to manufacturer using instructions and local regulations Hazard Ratings according to: NFPA(R)[24] and HMIS.[25]

- **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
REL	Recommended Exposure Limits
PEL (OSHA)	Permissible Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average
NIOSH	National Institute for Occupational Safety and Health
HCIS	Hazardous Chemical Information System - Safe Work Australia
WES AU/NZ	Workplace Exposure Standards Australia/New Zealand

[24] National Fire Protection Association

[25] Hazardous Materials Identification System

References

- Registry for Toxic Effects of Chemical Substances (RTECS), 2006.
- OSHA/NIOSH Worker Exposure to Silica during Countertop Manufacturing, Finishing and Installation, 2015 http://www.cdc.gov/niosh/docs/2015-106/pdfs/2015-106.pdf
- Centers for Disease Control and Prevention (CDC) Morbidity and Mortality Weekly Reports, Silicosis mortality trends and new exposures to respirable crystalline silica – U.S., 2001-2010. (February 13, 2015).
- NIOSH Hazard Review – Health Effects of Occupational Exposure to Respirable Crystalline Silica, April 2002 and health risks of exposure – https://www.cdc.gov/niosh/topics/silica/risks.html October 6, 2019.
- NTP Eleventh Report on Carcinogens, 2005.
- IARC Monograph Volume 68, Silica, Some Silicates and Organic Fibres, 1997.
- IARC Monograph; 14th Report on Carcinogens. 2016. Silica, Crystalline (Respirable Size) https://ntp.niehs.nih.gov/pubhealth/roc/index-1.html#toc1
- Hazardous Substances Data Bank (HSDB), 2004, 2006.
- Documentation of the TLV – Silica, Crystalline: α-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: mos.caesarstone.com.

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