

VICOSTONE 



SAFETY DATA SHEET

SDS

VICOSTONE® QUARTZ SURFACES

May 2025

Warning

This Safety Data Sheet (SDS) is specifically prepared for professionals (stonemasons, installers, etc.) who directly perform tasks on VICOSTONE® QUARTZ SURFACES (“Products”) and are at risk of inhaling respirable dust (containing crystalline silica and titanium dioxide) generated from these tasks. If you plan to process, fabricate, or install VICOSTONE® QUARTZ SURFACES, please carefully read the information specified in this SDS and the VICOSTONE® QUARTZ SURFACES Fabrication & Installation Guideline; as well as the Health Guideline related to crystalline silica.

VICOSTONE® QUARTZ SURFACES contain varying amounts of crystalline silica and titanium dioxide. Improper processing, fabrication, installation or incorrect implementation of recommended safety measures can lead to adverse health effects.

Always seek for health and safety advice from local government agencies and industrial hygiene safety consultants to ensure proper occupational safety measures are implemented, in accordance with occupational health regulations. This helps to minimize exposure to dust and maintain a safe working environment.

The employers of workers processing, fabricating and installing VICOSTONE® QUARTZ SURFACES must fully inform their workers about health risks and ensure that the workplace complies with applicable regulations. Employers are also responsible for implementing mandatory health and safety measures in the workplace.

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Identification of Products and the Company

Product name: VICOSTONE® QUARTZ SURFACES

This Safety Data Sheet applies to the collections of our VICOSTONE® QUARTZ SURFACES.

Identification of substances/compounds present in mixture: Crystalline silica (SiO_2)(quartz, cristobalite) 76 – 90%.

Recommended use: Applicable in various spaces and locations in residential and commercial constructions, including, but not limited to:

- Dining table, kitchen countertops,
- Living room table tops,
- Wall cladding, floor tiling,
- Staircase decoration, architectural space ornamentation, and
- Other similar applications.

Restricted use: Avoid using dry processes for processing, fabrication, or installation of Products (e.g., drilling, cutting, grinding, etc.) to minimize dust dispersion.

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Hazards Identification

VICOSTONE® QUARTZ SURFACES are safe during transportation, storage, and use after installation (provided that Products are not damaged: broken, cracked, or otherwise). The finished Products are odorless, stable, non-flammable, and pose no immediate hazard to health. However, activities such as drilling, cutting, grinding, etc. during the processing, fabrication, and installation of Products generate dust containing crystalline silica, which has the potential to cause adverse health effects.

OSHA and NIOSH have issued a “Hazard Alert” which focuses on the countertop industry and provides important information about the hazards of crystalline silica exposure and how to mitigate those hazards. It is available at <https://www.osha.gov/sites/default/files/publications/OSHA3768.pdf>.

During the processing, fabrication, and installation of Products, it is essential to consider the following content, classified according to OSHA Standards (29 CFR 1910.1200 and 29 CFR 1910.1053), GHS ver.10, Work Health and Safety regulations in Australia:

Signal word: DANGER

Hazard pictograms:



Category 1A (H350)
Category 1 (H372)



Category 3 (H335)

Hazard statements:

H320	: Causes eye irritation.
H335	: May cause respiratory irritation.
H350	: May cause cancer by inhalation.
H372	: Causes damage to organs (lungs) through prolonged or repeated exposure (via inhalation).

Precautionary statements:**Prevention:**

- P203 : Obtain, read and follow all safety instructions before use.
- P260 : Do not breathe dust.
- P264+P265 : Wash hands and face thoroughly after handling. Do not touch eyes.
- P270 : Do not eat, drink or smoke when using this product.
- P271 : Use only outdoors or with adequate ventilation.
- P280 : Wear protective gloves/ protective clothing/ face protection/ mask.

Response:

- P305+P351+P338 : If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P304+P340 : If inhaled: Remove person to fresh air and keep comfortable for breathing.
- P318 : If exposed or concerned: Get medical advice.
- P319 : If you feel unwell: Get medical help.
- P337+P317 : If eye irritation persists: Get medical help.

Storage:

- P403+P233 : Store in a well-ventilated place. Keep the container tightly closed.

Disposal:

- P501 : Dispose of contents in accordance with local regulations.

HEALTH EFFECTS

Effects on the eyes

Dust generated during the processing, fabrication, and installation of Products can cause eye irritation such as redness, discomfort, and tearing.

Effects on the respiratory tract

Dust generated during the processing, fabrication, and installation of Products can cause irritation to the respiratory tract, nose, throat and lungs.

Chronic exposure

Prolonged exposure to respirable crystalline silica, if inhaled, can cause silicosis, and is associated with other diseases, such as lung cancer, tuberculosis, and chronic obstructive pulmonary disease and some other diseases as recommended by OSHA. The risk of developing lung-related diseases increases if the individual combines smoking with inhaling crystalline silica dust. Therefore, it is important to always use respiratory protection during the processing, fabrication, and installation of Products. To minimize the generation of silica dust, it is essential to use the wet cutting method.

Inhalation of titanium dioxide dust can cause pulmonary fibrosis.

The worsening trend of existing conditions

The risk of worsening trends exists for individuals with pre-existing respiratory conditions when exposed to crystalline silica dust during the processing, fabrication and installation of Products.

Unknown Acute Toxicity: No data available

Composition/Information on Ingredients

Substance: Not applicable.

Mixture: Products are manufactured from natural materials such as quartz, cristobalite in various concentrations depending on product series, mixed with polymers, other inorganic compounds and titanium dioxide.

Ingredients	CAS No.	Percentage (% weight)
Crystalline silica (SiO ₂ – quartz)	14808-60-7	76 – 90
Crystalline silica (SiO ₂ – cristobalite)	14464-46-1	
Titanium dioxide (TiO ₂)	13463-67-7	0 – 7
Polymers	Not available	7 – 15
Colorants and minerals	Various	0 – 2

First Aid Measures

Description of necessary measures is subdivided according to the different routes of exposure: The finished VICOSTONE® QUARTZ SURFACES are odorless, stable, non-flammable and pose no immediate hazard to health. However, dust can be generated during the processing, fabrication, and installation of Products, which includes tasks such as drilling, cutting, and grinding, etc. The following measures should be applied when exposed to dust:

Eye Exposure with dust	In case of eye contact, do not rub the eye; instead, rinse the eye immediately with clean water at room temperature for at least 15 minutes. If irritated after rinsing, go to the nearest medical facility for diagnosis and treatment.
Skin Exposure with dust	In case of skin and clothing contact, wash the dust-exposed skin with clean water and soap, and remove the exposed or contaminated clothing, being careful not to contaminate the eyes. Go to the nearest medical facility for diagnosis and treatment.
Inhalation of dust	In case of inhaling dust and having symptoms of poisoning such as dizziness, vertigo, headache, etc., move the affected person away from the exposure area. If breathing is difficult or stops, perform emergency measures such as artificial respiration or notify medical staff to provide first aid on the spot and then take them to the nearest medical facility for support and treatment.
Ingestion of dust	In case of swallowing dust and having symptoms of poisoning such as nausea, dizziness, headache, abdominal pain, etc., go to the nearest medical facility for diagnosis and treatment.

Most important symptoms/effects, acute and delayed

Inhalation of respirable silica dust can cause respiratory tract irritation. Symptoms of exposure may include coughing, sore throat, nasal congestion, sneezing, wheezing, and difficulty breathing. Prolonged inhalation of respirable silica dust can lead to various adverse health effects, such as silicosis, and is associated with other diseases like lung cancer and pulmonary tuberculosis.

Indication of immediate medical attention and special treatment needed

If exposed or concerned, seek medical advice and attention from the nearest medical facility, and treatment should be symptomatic.

Fire Fighting Measures

Flammability

Products are not easily flammable.

Extinguishing media

Use the fire-fighting equipment in the area to extinguish the fire, such as: water, dry powder, foam and CO₂.

Fire fighting instructions

Evacuate all staff away from the fire to a safe location. Firefighters must wear full fire-resistant protective clothing and have self-contained breathing apparatus (air cylinders and breathing masks) operating in positive pressure mode. Special protective equipment and preventive measures for firefighters: fire helmet; fire suit; fire gloves; fire shoes or boots; isolation gas mask (type with face cover and air cylinder) and tools, equipment for fire fighting and rescue work.

Hazards arising from the fire: When a fire occurs, Products will generate gases: hydrocarbons, carbon dioxide, carbon monoxide, metal oxide smoke and carbon dust (coal dust) that will be toxic to humans if there is no self-contained breathing apparatus or breathing equipment that is not sealed, and affects the air environment.

Accidental Release Measures

If VICOSTONE® QUARTZ SURFACES are broken, they will produce fragments. Handle these fragments with protective gloves. Ensure that these fragments are properly disposed of in accordance with local, state, and federal regulations regarding waste management.

However, in the case of a large amount of dust generated during the processing, fabrication, and installation of VICOSTONE® QUARTZ SURFACES, use a dust vacuum for cleaning that has either a HEPA filter or an air filter that is required by the OSHA crystalline silica standard is pursuant to 29 C.F.R. § 1910.1053(h) (1), complies with the guidance outlined in Safe Work Australia's Working with Crystalline Silica Substances, or use a wet sweeping method. DO NOT DRY SWEEP to minimize airborne dust.

Always wear appropriate respiratory protection and protective clothing when handling dust generated during the processing, fabrication, and installation of VICOSTONE® QUARTZ SURFACES (see Section 8 of this Safety Data Sheet).

Seal all the fragments and dust in vapor tight containers for proper waste disposal.

Always exercise caution to ensure that dust and sludge generated during the processing, fabrication, and installation do not infiltrate water pipes. If a large amount of dust and sludge from these processes enters the water pipes, contact the local environmental protection agency or the local waste management authority for appropriate handling measures.

Handling and Storage

Handling

Always wear protective clothing, shoes, goggles, and gloves when handling, transporting, and arranging VICOSTONE® QUARTZ SURFACES. Products are heavy and breakable, so it is essential to take precautions to avoid injury and product damage. Utilize supporting equipment such as cranes, lifting devices, etc., to mitigate safety risks. Before operation, ensure that straps and lifting clamps are free from defects and damage. Keep a safe distance while handling or lifting Products.

Look for additional safety regulations when working with heavy objects to minimize safety risks during the work process.

Avoid generating dust during the processing, fabrication, and installation of Products. Instead, use the wet method (with water supply during the processing and fabrication of Products) to minimize dust dispersion into the air. When dust is generated from these processes, utilize appropriate ventilation equipment and dust collection devices to ensure that the dust concentration in the air remains below permissible exposure limits. Regularly maintain and inspect ventilation and dust collection equipment according to the manufacturer's recommendations.

Ensure a clean working environment, prevent dust accumulation on floors, walls, and other surfaces. Use appropriate cleaning equipment and wet cleaning methods to minimize the generation of pollutants in the air.

Always adhere to appropriate industrial hygiene measures after working with materials containing dust. Use soap and water to wash hands thoroughly after work. Change into clean clothing before leaving the workplace.

To reduce the risk of exposure to crystalline silica and titanium dioxide dust beyond permissible exposure limits, when processing, fabricating, or installing Products, wear a respirator that meets the requirements (see Section 8 of this Safety Data Sheet). In addition to general safety training, units involved in processing, fabrication, or installation should specifically train workers on proper respirator usage.

Fabricators and installers must ensure that workstations are equipped with necessary equipment and safety measures to reduce workers' exposure to dust and ensure that the workplace fully complies with local regulations and laws.

You can refer to additional guidance in the document "Fabrication & Installation Guideline VICOSTONE® QUARTZ SURFACES" published on the manufacturer's website (<http://www.vicostone.com>) or request from the supplier of this SDS. However, in any case, these measures and instructions cannot replace the existing health and safety obligations under the applicable local regulations.

Storage:

- Store properly in place with a roof, or in suitable sheltered areas.
- Avoid exposing Products to direct sunlight and other natural conditions.
- Avoid strong impacts that could cause Products to break.

Exposure Controls and Personal Protection

OCCUPATIONAL EXPOSURE LIMITS

References	Instructions or limits
Occupational Safety and Health Administration (www.osha.org)	OSHA Permissible Exposure Limit (PEL) for respirable crystalline silica (SiO_2) is $50 \mu\text{g}/\text{m}^3$ as an 8-hour time-weighted average (TWA). OSHA Permissible Exposure Limit (PEL) for respirable titanium dioxide (TiO_2) is $15 \text{ mg}/\text{m}^3$ as an 8-hour time-weighted average (TWA).
The National Institute of Occupational Safety and Health (NIOSH) (www.cdc.gov/niosh/)	Recommended Exposure Limit (REL) for respirable crystalline silica (SiO_2) is $50 \mu\text{g}/\text{m}^3$ of air as TWA for maximum of a 10-hour workday in a 40-hour workweek. NIOSH recommends an exposure limit of $2.4 \text{ mg}/\text{m}^3$ for fine TiO_2 as time-weighted average (TWA) concentration for up to a 10-hour workday in a 40-hour workweek.
American Conference of Governmental Industrial Hygienists (ACGIH)	Threshold Limit Value (TLV) in the work shift recommended for respirable crystalline silica is $25 \mu\text{g}/\text{m}^3$ Threshold Limit Value (TLV) in the work shift recommended for respirable nano-sized titanium dioxide (TiO_2) is $0.2 \text{ mg}/\text{m}^3$ and for fine particles is $2.5 \text{ mg}/\text{m}^3$.
Vietnam's National Technical Regulations (QCVN)	QCVN 02: 2019/BYT – Vietnam National Technical Regulation stipulates the Exposure Limit value of $100 \mu\text{g}/\text{m}^3$ for free silica concentration in respirable dust as TWA for an 8-hour work shift or a 40-hour workweek. QCVN 02: 2019/BYT – Vietnam National Technical Regulation stipulates the exposure limit value for Titanium dioxide (TiO_2) in respirable dust for an 8-hour work shift or a 40-hour work week (TWA) is $2 \text{ mg}/\text{m}^3$.

References

Instructions or limits

Canadian Governmental
Occupational Health & Safety
Departments

In many (but not all) Canadian jurisdictions, exposure limits are similar to the ACGIH. However, because laws vary by jurisdiction, some jurisdictions have recommended. Threshold Limit Values (TLVs) for respirable crystalline silica as:

- Ontario 0.1 mg/m³
- Quebec 0.1mg/m³
- Saskatchewan 0.05mg/m³
- New Brunswick 0.1mg/m³

Recommended Exposure Limits for Cristobalite:

- Ontario 0.05 mg/m³
- Alberta 0.025 mg/m³
- Quebec 0.05 mg/m³
- British Columbia 0.05mg/m³
- Saskatchewan 0.05mg/m³
- New Brunswick 0.05 mg/m³

Threshold Limit Value (TLV) in the work shift recommended for respirable nano-sized titanium dioxide (TiO₂):

- Saskatchewan 10mg/m³
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TECHNICAL CONTROLS

The employer who engages in the fabrication and processing of engineered stone has the responsibility to implement appropriate engineering or technical controls and to identify and utilize available resources regarding best practices. Always process, fabricate, and install VICOSTONE® QUARTZ SURFACES in well-ventilated areas, ensuring the concentration of respirable crystalline silica (SiO₂) and titanium dioxide (TiO₂) dust below the permissible exposure limits stated in the Safety Data Sheet; and use wet methods and processing, fabrication, and installation equipment with dust collection or suction functions during processing, fabrication, and installation to minimize dust generation.

PERSONAL PROTECTIVE EQUIPMENT AND MEASURES

Respiratory protection

Use respirators to protect workers from inhaling dust. When choosing, wearing, and using respirators, be careful and use them according to the manufacturer's instructions. The minimum quality requirement for respirators is the type of respirator that is suitable for the processing, fabrication, and installation environment and approved by NIOSH or equivalent protection that complies with OSHA's Respiratory Protection Standard (29 C.F.R. § 1910.134).

Eye/face protection

During the processing, fabrication, and installation of Products, or any activity that may generate dust, safety glasses with side shields or goggles must be worn in compliance with OSHA's Eye and Face Protection Standard (29 C.F.R. § 1910.133) and ANSI/ISEA Z87.1-2010. Additionally, avoid wearing contact lenses in work areas, as they may absorb irritants.

Skin protection

During processing, fabrication, and installation activities, use appropriate body protection equipment for the job, including: long-sleeved protective clothing, protective gloves (with the minimum standard meeting the requirements of EN388:2003 standard when handling sharp or rough edges), and steel-toed shoes for lifting products.

Hygiene measures

Wash hands and face after finishing work and prior to smoking. Wash contaminated clothing before reuse.

Note: This information is general, and each employer has its own responsibility to make decisions about employee protection measures, such as personal protective equipment, based on its particular workplace and activities, and should consult with an industrial hygienist or other qualified professional as necessary.

Physical and Chemical Properties

Appearance form	Solid block
Color	According to product design
Odor	Odorless
Odor threshold	No data available
Melting/freezing point	Not applicable
Boiling point or initial boiling point and boiling range	Not applicable
Flammability	No data available
Upper/lower flammability or explosive limit	Lower: Not applicable Upper: Not applicable
Flash point	Not applicable
Evaporation rate	Not applicable
Autoignition temperature	Not applicable
Decomposition temperature	Not applicable
pH	Not applicable
Kinematic viscosity	Not applicable
Solubility	Insoluble
Partition coefficient: n-octanol/water (log value)	Not applicable
Vapour pressure	Not applicable
Density and/or relative density	2.1 – 2.3 g/cm ³
Relative vapor density	Not applicable

Stability and Reactivity

Reactivity: Products are stable under normal conditions of use, storage and transportation

Chemical stability: Stable under normal conditions of storage and use

Possibility of hazardous reactions: None

Conditions to avoid (for example: electrostatic discharge, shock or vibration):

- Do not store outdoors or use for outdoor applications since UV radiation can cause product aging, discoloration, yellowing and prolonged UV exposure can reduce the physical and mechanical properties of Products.
- Avoid strong impacts that could cause Products to break.
- Avoid exposing the artificial stone product to high temperature as this can damage Products.
- Do not place hot objects or hot pans/pots directly taken from the stove onto the surface.

Materials/chemicals to avoid: Avoid contact with strong oxidizing agent as they will destroy Products (hydrofluoric acid,...).

Hazardous decomposition Products: When Products burn, it will produce gases such as carbon dioxide, carbon monoxide, water vapor, and carbon black, etc.

Toxicological Information

No acute or chronic effects are known from exposure to the intact Products. Only during activities involving processing, fabrication, installation, removal or disposal of Products, generating dust containing crystalline silica, is there potential for contact with broken stone to cause adverse health effects.

A. THE LIKELY PRIMARY ROUTES OF EXPOSURE

Does not occur with the finished Products.

Exposure occurs through inhalation, ingestion, eye contact, and skin contact in dusty environments arising from the processing, fabrication, and installation of Products.

B. ACUTE SYMPTOMS AND EFFECTS

Acute respiratory effects:

- Inhaling crystalline silica dust generated from the processing, fabrication, and installation of Products can cause acute mechanical irritation of the respiratory tract, including cough, chest tightness, and shortness of breath.
- Acute silicosis: According to OSHA regulations, exposure to large quantities of respirable crystalline silica dust for a period of several months to less than two years can cause acute silicosis. The symptoms of acute silicosis are frequently present and include fever, cough, and pleuritic chest pain.

Eye damage/irritation:

Crystalline silica dust generated during the processing, fabrication, and installation of Products can cause eye irritation such as redness, discomfort, and tearing.

C. CHRONIC SYMPTOMS AND EFFECTS

Symptoms and effects on the respiratory system:

Respirable Crystalline silica dust (SiO_2)

Chronic silicosis: According to OSHA regulations, chronic silicosis usually occurs after at least 10 years of exposure to respirable crystalline silica dust. The clinical manifestations of chronic silicosis are: shortness of breath and cough. Silicosis is an incurable disease, causing gradual damage and sometimes death, and is associated with other diseases such as: lung cancer, tuberculosis, chronic obstructive pulmonary disease and some other diseases according to OSHA recommendations. The risk of lung diseases will increase if the patient smokes, in addition to inhaling silica dust.

Titanium dioxide (TiO_2)

Inhaling titanium dioxide particles can cause pulmonary fibrosis and accumulation of harmful particles in the lungs. NIOSH recommends an exposure limit of 2.4 mg/m^3 for fine TiO_2 as time-weighted average (TWA) concentration for up to 10 hours per day in a 40-hour workweek.

- **Mutagenicity:** None
- **Reproductive toxicity:** None
- **Respiratory or skin sensitization:** None

D. NUMERICAL MEASURES OF TOXICITY

The toxicity parameters are referenced from experimental results for crystalline silica by the OECD iLibrary organization:

Routes of exposure	Test object	Test method	Dose/time	Toxic effects
Inhale	Human	TC_{Lo} – Lowest published toxic concentration	$16 \text{ mppcf}/8\text{H}/17.9\text{Y}$	Interrupted respiration; cough, difficulty breathing, pulmonary fibrosis (silicosis).
Oral	Rat	LD_{50} – Lethal dose fifty	$> 5.000 \text{ mg/kg}$	50% of rats died

E. CARCINOGENICITY

According to the IARC, NTP, OSHA, ACGIH, ECHA, SWA organizations, the crystalline silica (quartz, cristobalite) components and titanium dioxide are considered to cause cancer (through inhalation) as shown in the following table:

Type of material	IARC	NTP	OSHA	ACGIH	ECHA	SWA
Crystalline silica (quartz and cristobalite)	Group 1, carcinogenic to humans.	Known to be carcinogenic	Possibly carcinogenic	Suspected carcinogens Group A2.	Possibly carcinogenic, suspected carcinogens if exposed to	Carcinogenicity Category 1A;
Titanium dioxide	Group 2B, by inhalation in humans.	Known to be carcinogenic	Potential carcinogenic substance	Animal carcinogens with relevance to humans, Group A3.	Pending (*)	Unclassified

(*) The European Chemicals Agency had previously classified Titanium dioxide as carcinogen substance in group 2 by inhalation. However, the General Court of the European Union, in its judgment of 23 November 2022, decided to cancel the classification of titanium dioxide as carcinogen substance in group 2 by inhalation.

Ecological Information

- (a) Ecotoxicity (aquatic and terrestrial, if applicable): No data available
- (b) Persistence and degradability: No data available
- (c) Bioaccumulative potential: No data available
- (d) Mobility in soil: No data available
- (e) Other adverse effects: No data available
- (f) Environmental impacts: No data available
- (g) Environmental toxicity: No data available



ISO 14001 Certification: VICOSTONE, JSC has been granted ISO 14001 Certification for Environmental Management System.



GreenGuard and GreenGuard Gold: VICOSTONE® QUARTZ SURFACES comply with American GEI (GREENGUARD Environmental Institute) certification which verifies that VICOSTONE's Products meet the most stringent indoor air emission standards. GREENGUARD Gold (Children & Schools) standard, evaluates the sensitive nature of school populations combined with the unique building characteristics found in schools, and presents the most rigorous product emissions criteria to date.



NSF Certification / ANSI 051 Standard: VICOSTONE® QUARTZ SURFACES have been credited by the NSF (National Sanitation Foundation) for having surfaces safe enough for use in laboratories, healthcare facilities, and food preparation environments (ANSI 051 Standard).

Disposal Considerations

Disposal method: To dispose of materials that cannot be reused or recycled, they must be properly classified, collected, and handed over to authorized disposal units, following local regulations. The disposal process, methods, or pollution potential of the waste product may lead to changes in disposal options. Be aware that local disposal regulations may differ from federal disposal regulations.

Collection method: Arrange the storage area to ensure safety, preventing any falling hazards, obstruction of systems, or interference with rainwater and wastewater flow.

Storage equipment: Use storage equipment made of plastic, metal or other materials to avoid damage when colliding with sharp edges of stones.

Handling: After collecting waste Products, they must be handed over to authorized entities with sufficient competence in collecting, processing, and disposing of them in accordance with local regulations.

Recyclability: None

When incinerated at high temperatures, waste Products can produce gases such as carbon dioxide, carbon monoxide, and water vapor. Therefore, it is recommended not to use incineration as a disposal method.

Transportation Information

U.S. Department of Transportation	Proper shipping name	Not regulated
	Hazard Class	Not regulated
Transportation	ID number Packing group	Not regulated
	UN number	Not regulated
	Hazard classification for transportation	Not regulated
	Environmental hazard	Marine pollutant: No Soil pollutant: No
	Special precautions for user	Prevent stone slabs from falling or collapsing
	Transport in bulk according to Annex II of MARPOL 73/78	Not applicable
	Agreement and IBC code	Not applicable

Transportation hazards: It is essential to pay attention to measures for stacking, securing, and preventing collisions to minimize risks related to breakage, damage, and accidents for the transporter.

Regulatory Information

This Safety Data Sheet (SDS) is written according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS Ver.10), the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (HCS) 1910.1200 of the United States regarding hazardous substances, the Work Health and Safety (WHS) Regulations, the Work Health and Safety Act (Australia), Hazardous Products Act and Hazardous Products Regulations of Canada, and the Canada Occupational Health and Safety Regulations.

United States (U.S.):

- **29 CFR 1910.1053:** Occupational health and safety standard for respirable crystalline silica.
- **29 CFR 1910.133:** Standard on personal protective equipment for eye and face protection.
- **29 CFR 1910.134:** Standard on respiratory protection.
- **ANSI/ISEA Z87.1-2020:** American National Standard for Occupational and Educational Personal Eye and Face Protection Devices.
- **ANSI Z89.1:** American National Standard for Industrial Head Protection.
- **NFPA 77 (1988):** Recommended Practice on Static Electricity, published by the U.S. National Fire Protection Association (NFPA).
- **California State regulations:** California's Proposition 65 WARNING: This product contains chemicals, including silica and titanium dioxide, that become airborne and respirable when fabricating Products and are classified by the State of California as causing cancer and birth defects. The other chemicals contained in Products – i.e., “polymers” and “colorants and minerals” – are not listed under California's Proposition 65. For information see www.p65warnings.ca.gov.

Canada:

- **CSA Z94.1:** Industrial protective headwear — Performance, selection, care, and use.
- **CSA Z94.3:** Eye and face protectors.
- **CSA Z94.4:** Selection, use, and care of respirators.
- **CSA Z195:** Protective footwear.
- **CSA Z96:** High-visibility safety apparel.
- **CSA Guideline Z204-94:** Guideline for Managing Air Quality in Office Buildings.
- Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs) published by the American Conference of Governmental Industrial Hygienists (ACGIH), are commonly adopted as guidance in Canadian workplaces.

- **Ontario:** O. Reg. 851 (Industrial Establishments); O. Reg. 833 (Control of Exposure to Biological or Chemical Agents); O. Reg. 490/09 (Designated Substances); O. Reg. 213/91 (Construction Projects).
- **British Columbia:** Occupational Health and Safety Regulation, Sections 6.110–6.115.
- **Alberta:** Occupational Health and Safety Code, Part 4 – Chemical Hazards, Biological Hazards, and Harmful Substances.
- **Manitoba:** Workplace Safety and Health Regulation MR 217/2006, Part 36 – Chemical and Biological Substances.
- **Quebec:** Safety Code for Construction Work (chapter S-2.1, r. 4)
- **Saskatchewan:** The Occupational Health and Safety Regulations, 2020
- **Nova Scotia:** Workplace Health and Safety Regulations (N.S. Reg. 52/2013), Part 2
- **New Brunswick:** General Regulation (N.B. Reg. 91-191), Sections 23–25
- **Newfoundland and Labrador:** Occupational Health and Safety Regulations, 2012 (N.L.R. 5/12), Section 46 – Silica.
- **Prince Edward Island:** Occupational Safety Act General Regulations, Section 11.3

Australia:

- Work Health and Safety Act 2011 (Cth) and WHS Regulations 2011.
- **AS/NZS 1337:** Eye and face protection for occupational applications.
- **AS/NZS 1715:2009:** Selection, use, and maintenance of respiratory protective equipment.
- **AS/NZS 1716:2012:** Respiratory protective devices.
- **AS/NZS 2161:** Occupational protective gloves.
- Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (Safe Work Australia).
- Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code, 7th edition): These products are not classified as Dangerous Goods under the ADG Code.
- Workplace Exposure Standards for Airborne Contaminants (Safe Work Australia).
- Managing the Risk of Respirable Crystalline Silica from Engineered Stone in the Workplace (Safe Work Australia).

Vietnam:

- **QCVN 02:2019/BYT:** National Technical Regulation on Dust – Permissible Exposure Limits for Dust at Workplaces.
- **QCVN 10:** 2012/BLĐTBXH: National technical regulation on occupational safety with gas filters used in masks and respirators.
- **TCVN 13409:2021:** Respiratory protective devices – Filtering half masks to protect against particles – Requirements, testing, marking.
- **TCVN 5082:1990:** Personal eye-protectors – Specifications.
- **TCVN 6689:2021:** Protective Clothing – General Requirements.
- **TCVN 12326-1:2018:** Protective Gloves Against Dangerous Chemicals and Micro-organisms – Part 1: Terminology and Performance Requirements for Chemical Risk.

Other Information

SDS last revision date: May, 2025

Abbreviations and acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety and Health Administration
SWA	Safe Work Australia
TLV	Threshold Limit Value
PEL	Permissible Exposure Limits
TWA	Time Weighted Average
NTP	National Toxicology Program
IARC	International Agency for Research on Cancer
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
HCS	Hazard Communication Standard
ID	Identification Information
UN	United Nations
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
OECD	Organisation for Economic Co-operation and Development

References

- Manual of Tests and Criteria, United Nations.
- United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations, United Nations.
- International Maritime Dangerous Goods (IMDG) Code, International Maritime Organization.
- IATA Dangerous Goods Regulations, International Air Transport Association (IATA).
- International Convention for the Prevention of Pollution from Ships (MARPOL).
- Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs), American Conference of Governmental Industrial Hygienists (ACGIH) (<https://www.acgih.org>).
- Agricultural Compounds and Veterinary Chemicals Act 1997, Agricultural Compounds and Veterinary Chemicals Act, New Zealand.
- Basel Convention, Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.
- Code of Practice for the Supply Diversion into Illicit Drug Manufacture, Australia.
- IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, International Agency for Research on Cancer (IARC) (<https://monographs.iarc.who.int>).
- Health and Safety Information, International Labour Organization (ILO) (<http://www.ilo.org>).
- Montreal Protocol, Montreal Protocol on Substances that Deplete the Ozone Layer.
- National Code of Practice for Chemicals of Security Concern, Australia.
- Code of Practice: Managing Noise and Preventing Hearing Loss at Work, Safe Work Australia.
- NIOSH Guidelines, National Institute for Occupational Safety and Health (<http://www.cdc.gov/niosh/>).
- Rotterdam Convention, Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.
- Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP), Australia.
- Stockholm Convention, Stockholm Convention on Persistent Organic Pollutants (POPs).

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