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MARS™ QUARTZ

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Material Safety Data Sheet

Product Name: MARS Quartz™
MSDS Date: March 2020

1. PRODUCT AND COMPANY DESCRIPTION

Product: Engineered Stone
Product Name: MARS Quartz™

Company: Hilltop Granites Canada, Inc
5150 Timberlea Blvd, Mississauga ON, L4W 2S5 Canada

2. HAZARDS IDENTIFICATION

MARS Quartz™ products are mixtures of natural quartz, resins and other naturally occurring minerals. The finished products are odorless, stable, non-flammable, and pose no immediate hazard to health. Fabrication and processing of engineered stone, (i.e. cutting, sawing, grinding, breaking, crushing, drilling, sanding or sculpting) will generate dust that can expose you to crystalline silica (quartz). Unprotected and uncontrolled exposure to such dust is dangerous to health and can cause severe illness such a silicosis, lung cancer, fibrosis of the lungs, tuberculosis, kidney disease, abrasions of the cornea and irritation of the skin and eyes. MARS Quartz™ products are not hazardous as shipped and used by the end user.

Emergency Overview: Danger! Lung injury and Cancer Hazard
GHS Classification (Global Harmonized Standard Classification):Carcinogenicity Category 1A (H350)
Specific target organ toxicity, single exposure; Respiratory tract irritation -Category 3 (H335)
Specific target organ toxicity, repeated exposure - Category 1A (H372)
GHS Label, Hazards and Precautionary Statements
Category 3 (Respiratory tract irritation) (H335) Categories 1A(Carcinogenicity)(H372)
Hazard Statements:
(H350) May cause CANCER (inhalation)
(H335) May cause respiratory irritation
(H372) Causes damage to organs (lung/respiratory) through prolonged or repeated exposure (inhalation)

Precautionary Statements:
Do not handle until all safety precautions have been read and understood. (P202)
Do not breathe dust/spray. (P260 + P261)
Wash skin thoroughly after handling. (P264)
Do not eat, drink or smoke when using this product. (P270)
Wear protective gloves, protective clothing, eye protection, face protection. (P280)
Potential Health Effects:
Inhalation: Do not breathe dust. See “Health Hazards” in Section 11 for more details.

3. HAZARDOUS CHEMICAL COMPOSITION

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Composition	Cas#	Estimated % by Wt.
Crystalline silica as quartz	CAS: 14808-60-7	>90%
Titanium Dioxide	CAS: 13463-67-7	0-10%
Cristobalite	CAS: 14464-46-1	0-10%
Other Natural Stone / Minerals[2]	N/A	0-10%
Polyester Resins	Mixture	0-10%

[2] Inorganic Minerals including but not limited to: Feldspar, Iron Oxide, Aluminum Oxide, Glass, Mirror, and others.

The presence and percentage will vary depending on specific product model. Under normal conditions these products do not release hazardous materials after installation and are not considered hazardous waste should disposal be necessary.

Quartz products are composed of Quartz, Polyester Resins and other naturally-occurring minerals and are fabricated into various shapes, sizes. These products do not contain asbestos. Under normal conditions these products do not release hazardous materials after installation and are
not considered hazardous waste should disposal be necessary.

4. FIRST AID MEASURES

INHALATION
Remove to fresh air if exposed to large amounts of dust. Administer artificial respiration if breathing has stopped. Keep victim at rest. Call for prompt medical attention.
SKIN CONTACT
Wash thoroughly after working with Engineered Stone products.
EYE CONTACT
Immediately flush eyes with large amounts of water for at least 15 minutes if dust gets in eyes. Get medical attention if irritation persists.
INGESTION
Not applicable for intact engineered stone products. Have emergency eyewash station available in area where products are cut.

5. FIRE FIGHTING MEASURES

Quartz products can be combusted only with difficulty. 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.

Flash Point (Method Used): 4900 C

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Autoignition Temperature:	Not applicable
Flammable Limits (% by Volume in Air):	LEL - not applicable
Flammable Limits (% by Volume in Air):	UEL - not applicable
Fire Extinguishing Media:	Water, Dry Chemical, CO2, Foam
Special Fire Fighting Procedures:	None required
Fire and Explosion Hazards:	None

6. ACCIDENTAL RELEASE MEASURES

Avoid creating excessive dust. Clean up dust with a vacuum system with a High-efficiency particulate (HEPA) air filter vacuum or damp sweeping. See Section 8 of this SDS concerning PPE information for clean-up.

7. HANDLING AND STORING

When cutting, grinding or removing, use equipment with integral dust collection and/or use local exhaust ventilation. Use wet cutting methods to reduce generation of dust. Use respiratory protection in the absence of effective engineering controls.

Do not store near acids. Shelf life is unlimited

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation: Use adequate ventilation to keep exposure to dust below recommended exposure levels. Avoid inhalation of dust. The highest probability of silica exposure occurs during installation using dry cutting methods or during removal of installed engineered stone. Wet cutting methods are recommended.
Respiratory Protection: Use of a properly fitted NIOSH/MSHA approved particulate respirator is recommended when cutting engineered stone products for installation or during the removal of installed product.
Eye Protection: Use dust-proof goggles or safety glasses with side shields. Contact lenses may absorb irritants. Do not wear contact lenses in work areas.
Skin Protection: Cotton or leather work gloves should be worn when cutting this product to minimize skin exposure to dust and/or cuts.
Wash hands prior to eating, drinking, or smoking, and at the end of the work shift, after cutting operations are conducted.
NOTE: Personal protection information in Section 8 is based on general information for normal uses and conditions.
Where special or unusual uses or conditions exist, it is suggested that the assistance of an industrial hygienist or other qualified professional be obtained.

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	OSHA PEL	NIOSH IDLH	ACGIH TLV*	Units
Crystalline Silica as Quartz -Respirable Limits 8hr	10 %SiO2+2	0.05	0.025	mg/m3
TWA* -Total Dust	30 %SiO2+2	N.E.	N.E.	mg/m3
Titanium Dioxide	15	N.E.	N.E.	mg/m3

*OSHA (29 CFR 1910-1000 Table Z-3)
Abbreviations:
N.E.= Not Established, TWA= Time-Weighted Average, AGCIH=American Conference of Governmental Industrial Hygienists, OSHA= Occupational Safety and Health Administration, NIOSH = National Institute of Occupational Safety and Health

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Brittle solid; color will vary
Odor	Odorless
Melting Point	Not Available (>1000 0F)
Boiling Point	Not applicable
Vapor Pressure	Not applicable
Vapor Density (Air = 1)	Not applicable
Solubility in Water	Insoluble
Specific Gravity (H2) = 1)	2.2 – 2.5
Percent Volatile by Volume	Not applicable
Evaporation Rate (Ethyl Ether = 1)	Not applicable
Viscosity	Not applicable

10. STABILITY AND REACTIVITY

Stability	Stable in current form
Conditions to Avoid	Avoid contact with acids (e.g., Hydrochloric, acetic, hydrofluoric, etc.)
Incompatibility (Materials to Avoid)	Avoid contact with acids (e.g., Hydrochloric, acetic, hydrofluoric, etc.)
Hazardous Polymerization	Will not occur
Hazardous Decomposition Products	Various Hydrocarbons, Carbon Dioxide, Carbon Monoxide Fumes & Water

11. TOXICOLOGICAL INFORMATION

Primary Routes of Exposure: None for intact engineered stone products. Inhalation and potential exposure

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to eyes, hands, or other body parts if contact is made with broken tile, and/ or during procedures involving the cutting of products, and/or for operations involving the removal of installed products.

Acute Effects: No acute effects from exposure to intact engineered stone products are known. Working with broken or cut engineered stone produces a potential for cuts to the hands and exposed body parts. Acute effects such as eye irritation may occur if associated with high dust operations such as dry cutting or during the removal of installed product. In very rare cases, symptoms of acute silicosis, a form of silicosis
(a nodular pulmonary fibrosis) associated with exposure to respirable crystalline silica, may develop following acute exposure to extremely dusty environments caused by generation of engineered stone dust. Signs such as labored breathing and early fatigue may indicate silicosis; however, these same symptoms can arise from many other causes.

Chronic Effects: No chronic effects are known for exposure to intact engineered stone products. Long-term, continual exposure to respirable crystalline silica at or above established permissible occupational exposure limits may lead to the development of silicosis, a nodular pulmonary fibrosis(NPF). NPFs are also associated with pulmonary tuberculosis, bronchitis, emphysema, and other airway diseases. This type of chronic exposure to silica dust may also result in the development of autoimmune disorders, chronic renal disease, and other adverse health effects. Recent c studies demonstrate that workers exposed to elevated silica concentrations have a significant risk of developing chronic silicosis. Signs such as labored breathing and early fatigue may indicate silicosis; however, these same symptoms can also arise from many other causes.
Potential Adverse Interactions: Silicosis may be complicated by severe mycobacterial or fungal infections and result in tuberculosis (TB). Epidemiological studies have established that silicosis is a risk factor for developing TB. Any existing respiratory or pulmonary diseases may be complicated by exposure to respirable crystalline silica. Smoking may increase the risk of adverse effects if done in conjunction with occupational exposure to silica dust at or above permissible exposure limits.
Carcinogen Status: Respirable crystalline silica is classified by the International Agency for Research on Cancer (IRAC) as a Group I Carcinogen (carcinogenic to humans). The National Toxicology Program (9th Report) lists respirable crystalline silica as “Known to be a Human Carcinogen”. USDOL/OSHA and NIOSH have recommended that crystalline silica be considered a potential occupational carcinogen.

12. ECOLOGICAL INFORMATION

No information available at this time.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL OF SUBSTANCE
Waste should be disposed of by a licensed waste removal/disposal contractor or in a landfill certified to accept such materials in accordance with federal, state, and local regulations. Collected waste on site in the form of dust/particles should not be allowed to enter any waterway, sewer, or stream of any kind.

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CONTAINER DISPOSAL
Dispose of in accordance with federal, state and local regulations.
RCRA: None listed.

14. TRANSPORTATION INFORMATION

D.O.T Shipping Name: Not applicable
Hazard Class: Non-regulated (for disposal purposes material is non-hazardous Class III regulated material)
ID Number: Not applicable
Marking: Not applicable
Label: None
Placard: None
Hazardous Substance/RQ: Not applicable
Shipping Description: Engineered Stone / Quartz Products
Packaging References: None

15. REGULATORY INFORMATION

U.S. Federal Regulations
TSCA Inventory Status: In compliance with TSCA Inventory requirements for commercial purposes.

16. OTHER INFORMATION

Prepared by: Hilltop Granites Canada, Inc Date prepared: March 2020
Last updated: March 20, 2020
Contact information: info@mars-quartz.com

Intended Use Of This Product: This product is intended for use by skilled individuals at their own risk. The information contained herein is based on data considered accurate based on current state of knowledge and experience. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Hilltop Granites Canada, Inc. The data on this sheet is only related to the specific material designated herein. Hilltop Granites Canada, Inc assumes no legal responsibility for use or reliance on this data.

Note: The information in this data sheet provides information related to the potential hazards associated with dusts which may be produced during cutting or otherwise changing the shape of the product during installation and/or removal.

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Hazardous Material Identification System		National Fire Protection Association	
HMIS:	Health: 1 Fire: 0 Reactivity: 0	NFPA:	Health: 1 Fire: 0 Reactivity: 0

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