

**Section 1: Identification**

**Product Name:** HanStone® Quartz  
**Product Identifier:** Engineered stone, Quartz surfaces  
**Product Use:** Engineered stone surfaces for use as countertops, vanities, and other surfaces for residential and commercial applications  
**Company:** Hanwha L&C Canada  
2860 Innovation Drive  
London ON N6M 0C5  
**Emergency Phone Number:** 1-519-617-7101

**Section 2: Hazard(s) Identification****FOR SHIPPING OF FINISHED PRODUCT**

**GHS Classification:** NOT APPLICABLE. Material is classified as non-hazardous

**The following applies if the product is cut, drilled, grinded and polished and risk of inhalation of respirable crystalline silica dust is present:**

**GHS Classification:**

Carcinogenicity – Category 1A

Specific Target Organ Toxicity (repeat exposure) – Category 1(lung)

**Signal Word:** DANGER

**Label Elements:****Hazard Statement:**

May cause cancer (inhalation)

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

**Precautionary Statements****Prevention:**

Obtain special instructions use (before cutting, grinding or drilling of product)

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

Do not breathe dust

Wash hands thoroughly after handling

Do not eat, drink or smoke when using this product

Use personal protective equipment as required (protective gloves, and safety glasses or goggles)

In case of inadequate ventilation wear respiratory protection

**Response:**

If exposed or concerned: Get medical advice

**Disposal:**

Dispose of contents/container in accordance with local, state/provincial, or federal regulations

## Section 3: Composition/Information on Ingredients

Components	CAS Number	Proportion %
Crystalline Silica/Quartz	14808-60-7	≥87
Binding agents		7-13
Additives		0 - 4

## Section 4: First-Aid Measures

**Inhalation:** First aid is generally not required. If inhaled, remove to fresh air and keep in a rest position comfortable for breathing. If difficulty in breathing persists seek medical attention.

**Skin Contact:** Broken edges of finished product may be sharp causing laceration to skin, if needed seek medical attention.

**Eye Contact:** If dusts get into eye(s), immediately rinse with plenty of water. Do not rub eyes. If eye irritation persists get medical advice and attention.

**Ingestion:** Not applicable under normal handling conditions. If large amounts of dusts are ingested rinse mouth. Do not induce vomiting. Seek medical attention.

**Most Important Symptoms and Effects (acute or delayed/chronic)**

**Acute:**

Inhalation: Nasal congestion. Sneezing, coughing, sore throat, wheezing and shortness of breath.

Skin: Dust can cause mechanical abrasion, redness, rash like appearance, discomfort. Sharp edges can cut skin

Eyes: Redness, discomfort, pain.

**Delayed/Chronic:** Repeat or prolonged inhalation of crystalline silica above specified concentrations may cause lung cancer or silicosis.

Symptoms include: coughing, difficulty breathing, wheezing and progressive lung function impairment.

**Indication of any immediate medical attention and special treatment needed:** Not required

## Section 5: Fire-Fighting Measures

**Suitable Extinguishing Media:** Use extinguishing media suitable for surrounding fire.

**Unsuitable Extinguishing Media:** None known

**SPECIAL FIRE HAZARDS**

**Fire Hazard:** Not flammable. Can be combustible with difficulty. Heated to decomposition may release various hydrocarbons, carbon dioxide, carbon monoxide, mineral fumes and water from the binder and additives.

**Explosion Hazard:** Not applicable

**Reactivity:** Hazardous reactions will not occur under normal conditions

**ADVICE FOR FIRE FIGHTERS**

**Precautionary Measures Fire:** Fight fire with normal precautions from a reasonable distance

**Firefighting Instructions:** Keep a distance and upwind of fire

**Protection During Firefighting:** Use self-contained breathing apparatus and individual fire protective equipment.

## Section 6: Accidental Release Measures

**Use of Personal Precautions:** Wear appropriate protective clothing and equipment where risk of exposure to dust is present. Wear cut resistant gloves where sharp edges are present.

**Environmental Precautions:** No specific precautions required. Report any releases in accordance with local, state/provincial, or federal regulations.

**Methods for Containment/Cleaning-Up:** Solid slab material can be gathered and disposed of. Avoid generating dust. Dust may be cleaned using HEPA filtered vacuum or shovel/sweep after light wetting down to avoid generating airborne particles. Do not dry sweep. Dispose of dust in closed containers.

## Section 7: Handling and Storage

### Precautions for Safe Handling

Avoid generating dust when fabricating and installing product, wet production methods should be used to minimize airborne contaminants. When dust from the product is present, use adequate ventilation and dust collection equipment to maintain airborne contaminants to below the permissible exposure limits (see section 8). Maintain and test ventilation and dust collection equipment. Practice good housekeeping; do not permit the build up of dust on floors, walls and other surfaces. Use HEPA filtered vacuum cleaning equipment and wet methods – light wetting of dust to minimize generating airborne contaminants.

To reduce risk of exposure in excess of the permissible exposure limits when cutting, drilling, grinding, and polishing or any process that generates dust, wear an approved respirator (see section 8). Ensure respirator training and fit testing has been done in accordance with applicable standards and that wearer does not have facial hair that will impede the seal of the respirator to the face. Ensure all equipment is clean, maintained and in good repair.

Wash hands before eating, drinking smoking or using toilet. Practice good industrial hygiene when handling any dust from this product.

Wear cut resistant gloves where risk of exposure to sharp edges of the slab is present.

### Precautions for Safe Storage

Product is heavy and breakable, secure slabs with care when storing or transporting to prevent injury and damage. Pinch points can occur when handling multiple slabs.

## Section 8: Exposure Controls/Personal Protection

### Exposure limits

Component	ACGIH American Conference of Governmental Industrial Hygienists - <b>ACGIH TLV (2010)</b>	NIOSH National Institute for Occupational Safety and Health <b>NIOSH REL</b>	OSHA-PELS <b>OSHA PEL</b> General Industry 29 CFR 1910.1000 Table Z-3
Silica, Crystalline: Quartz	0.025 mg/m <sup>3</sup> TWA (Respirable Fraction)	0.05 mg/m <sup>3</sup> TWA (Respirable Dust)	Respirable: 0.10 mg/m <sup>3</sup> TWA <u>10 mg/m<sup>3</sup></u> %SiO <sub>2</sub> +2  Total Dust: <u>30 mg/m<sup>3</sup></u> %SiO <sub>2</sub> +2 TWA

### Abbreviations

TWA = Time Weighted Average. TLV: Threshold Limit Values 8 hr time weighted average. PEL: Permissible Exposure Limit 8 hr time weighted average. REL Recommended Exposure Limit 10 hr time weighted average.

**Engineering Controls:** Ventilation must be adequate to maintain the airborne concentrations below the applicable exposure limits listed above. Ventilation may include dust collection systems. When using machinery

and tools use the wet method to minimize airborne dust. Use HEPA filtered vacuum cleaning equipment and light wetting of dust for cleaning purposes. Eyewash facilities should be readily available.

**Administrative:** Conduct hazard/risk assessments and air sampling to determine appropriate engineering controls for suitable ventilation and or dust collection systems. Ensure all personnel are trained to understand the risks of exposure to crystalline silica/quartz and know how to work safely with it.

**Eye / Face Protection:** When cutting, drilling, grinding or polishing wear safety glasses with side shields or safety goggles that meet applicable safety standards.

**Skin / Body Protection:** Cover skin to minimize risk of mechanical irritation. Wear cut resistant gloves when exposed to sharp edges. Wear steel toed safety footwear.

**Respiratory Protection:** If it is not possible to reduce the exposure limits to below the permissible limits listed above, use NIOSH approved respiratory equipment for protection against crystalline silica/quartz dust. Follow the requirements based on your jurisdiction: The Canadian Safety Association CSA Standard Selection, Use and Care of Respirators Z94.4-11 and or the OSHA's Respiratory Protection Standard, 29CFR1910.134 and to the NIOSH Respirator Selection Logic 2004 DHHS (NIOSH) for appropriate selection of respirators.

**Operator** must be **clean shaven, trained and** qualified to use **the** respirator.

## Section 9: Physical and Chemical Properties

<b>Appearance:</b>	Multi-coloured engineered quartz solid stone
<b>Odour:</b>	Odourless
<b>pH:</b>	NA
<b>Melting Point/Freezing Point:</b>	NA
<b>Boiling Point:</b>	NA
<b>Flash Point:</b>	490°C
<b>Flammability:</b>	NA
<b>Evaporation Rate:</b>	NA
<b>Density:</b>	2.38 – 2.40 g/cm <sup>3</sup>
<b>Solubility in Water:</b>	Insoluble
<b>Moisture Absorption:</b>	≤0.03%
<b>Upper/Lower Flammability Limit:</b>	None
<b>Viscosity:</b>	None, solid

## Section 10: Stability and Reactivity

**Reactivity:** This product is stable under most normal temperatures.

**Chemical stability:** Avoid contact with hydrofluoric acids.

**Hazardous Decomposition:** Thermal decomposition, the binders and additives may release various hydrocarbons, carbon dioxide, carbon monoxide, mineral fumes and water.

**Hazardous Polymerization:** None

## Section 11: Toxicological Information

**No toxicological data is available for this product in solid form. No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet.**

If exposure controls are not adhered to the following symptoms or effects could occur from respirable crystalline silica/quartz (inhalation) exposure in excess of the permissible limits:

**Crystalline Silica / Quartz :**

Inhalation (Human) LC Lo: 0.3mg/m<sup>3</sup>/10 Y

Inhalation (Human) TC Lo: 16mppcf/8H/17.9 Y

Intermittent: focal fibrosis, pneumoconiosis, cough, dyspnoea

Inhalation (rat) TC Lo: 5.0 mg/m<sup>3</sup>/6 H/71W

Intermittent – Liver Tumours

Oral LD<sub>50</sub> Rat: 500 mg/kg

**CANCER:** Crystalline silica (respirable size) has been classified by:

The International Agency for Research on Cancer (IARC): Group 1 Carcinogen to humans

The American Conference of Governmental Industrial Hygienists (ACGIH): Suspected human carcinogen with an A2 classification.

National Toxicology Program (NTP) carcinogenic classification: Known human carcinogen.

**SILICOSIS:** Prolonged inhalation of respirable dust containing crystalline silica may result in silicosis, a disease characterized by inflammation and progressive fibrosis of the lungs. Also known as pneumoconiosis (lung disease caused by the inhalation of dust), silicosis is marked by shortness of breath and impaired lung function which may give rise to complications that can result in death. The development and the severity of silicosis depends on the airborne concentration of silica dust to which a worker is exposed and the duration of exposure. Crystalline silica may be harmful following high exposure levels received over a period, ranging from a few weeks to years or after long-term exposures to lower levels. There are three major types of silicosis:

**Acute Silicosis:** Can occur after repeated inhalation of very high concentrations of respirable crystalline silica over a short period of time. As few as 8 to 18 months may elapse from the time of first exposure to the onset of symptoms. Symptoms include a more rapid onset of progressive shortness of breath, cough, weakness, fever, and weight loss. There is a rapid progression of respiratory failure usually resulting in death within one or two years.

**Chronic Silicosis:** The most common type of silicosis and occurs after many years (usually more than 10 years) after contact with prolonged and repeated exposure to low concentrations of inhaled crystalline silica. Symptoms progress and worsen over a period of many years. The effects of chronic silicosis can continue to develop even after the exposure ceases, the effects are irreversible. Chronic silicosis may be either a simple or a complicated type:

**Simple Chronic Silicosis:** Almost entirely without symptoms. In the early stages, the lung nodules are small (usually 1 to 3 mm) and discrete in the upper lung fields. As the disease progresses the nodules increase in number and size and also occupy the lower field. Although simple silicosis may never grow more serious, long-term exposure to silica dust may lead to complicated silicosis.

**Complicated Chronic Silicosis:** Also called progressive massive fibrosis (PMF). First symptoms may include shortness of breath with exercise, wheezing or sputum that causes coughing. Some people with the disease has no symptoms; may become worse when in combination with other lung diseases. Severe complicated silicosis can result in heart disease in addition to lung disease.

**Accelerated Silicosis:** Similar to the chronic type, but develops more quickly with the lung scars appearing sooner. Nodules may appear sooner on a chest x-ray five years after the first exposure to silica dust. This type of silicosis occurs from exposure to large amounts of silica dust over a short time period and can progress quickly.

**Non-Malignant Respiratory Diseases:** There is concern that there is an association between exposure to respirable crystalline silica and chronic bronchitis, emphysema and small airway disease.

**Aggravation of Pre-Existing Conditions:** Inhalation of dusts may aggravate pre-existing respiratory conditions. Smoking and exposure to respirable crystalline silica increases the risks of lung damage.

**Other Potential Health Effects and Hazards**

Silicosis increases risk of tuberculosis and other respiratory diseases (American Thoracic Society 1997). Exposure to the respirable fraction of crystalline quartz may promote autoimmune diseases such as scleroderma, rheumatoid arthritis, and systemic lupus erythematosus (Parks et al. 1999). Extra-pulmonary silicosis has also been found, where lesions spread to the liver, spleen, kidneys, bone marrow, and extra-thoracic lymph nodes (IARC 1997).

## Section 12: Ecological Information

Insoluble in water therefore toxicity is expected to be low.  
**Environmental Fate:** Not information available  
**Environmental Toxicity:** No information available

## Section 13: Disposal Considerations

**Waste Disposal Method:** Can be recycled, disposed in landfill or incinerated as per compliance with local regulations.

## Section 14: Transport Information

**UN Number:** None  
**UN Proper Shipping Name:** Not regulated  
**Transport Hazard Class:** None  
**Packing Group Number, if Applicable:** None  
**Environmental Hazards:** None

## Section 15: Regulatory Information

Depending on your location, further regulations may apply for products that contain crystalline silica/quartz. Please ensure compliance with all health, safety and environmental local, state and federal regulations.

## Section 16: Other Information

**Hanwha L&C Disclaimer:**  
 Such information is to the best of Hanwha L&C's knowledge and believed accurate and reliable as of the date of completion. However, no representation, warranty or guarantee, expressed or implied, is made to its accuracy, reliability or completeness contained herein. Hanwha L&C accepts no responsibility and disclaims all liability for any harmful effects that may be caused by our product by sale, resale or its use. It is the recipient's responsibility to satisfy their needs as to the suitability and completeness of such information to meet their jurisdictions applicable health, safety and environmental rules, laws and regulations.

**Certifications:**  
 GREENGUARD – Product is certified for low emissions  
 NSF – NSF51 certified

