

MSDS (Material Safety Data Sheet)

1. Identification of the Substance / Company

- **Product Name** Hanwha Hanstone
(Hanstone is a registered trademark of Hanwha L&C Corp.)
- **Manufacturer / Supplier** Hanwha L&C Corp.
Hanwha Bldg., 1 Janggyo-dong, Jung-gu, Seoul, Korea
TEL : 82-2-729-2920 FAX : 82-2-729-1469
- **Emergency Telephone Number** TEL : 82-2-729-2920
- **Telephone Number for Information** 82-2-729-2920 (Hanwha L&C Corp., Korea)

2. Composition / Information on Ingredients

Component	By Weight	CAS
Synthetic resin (Unsaturated Polyester)	5-20	-
Quartz (SiO ₂ , < 0.1mm)	10-50	14808 - 60 - 7
Quartz (SiO ₂ , 0.1-10mm)	10-90	14808 - 60 - 7
Colorant	< 1	Trade secret
Additives	< 1	Trade secret

3. Hazard Identification

- **Most important hazards** » This product is not classified as dangerous
- **Specific hazards** » Operations such as sawing, routing, drilling and sanding can generate dust.
» Dust generated during handling of quartz surfacing products can contain particles of quartz
» Overexposure to airborne quartz can cause silicosis.
- **Particles of quartz (dust)**
 - » Inhalation - short-term : stimulus
- long-term : stimulus, lose in weight, breathe hard, silicosis
 - » Eye contact - short-term : stimulus
- long-term : eye damage
 - » Skin contact - short-term : stimulus
- long-term : no information available
 - » Ingestion - short-term : stimulus
- long-term : no information available

4. First Aid Measures

- **Inhalation** » Move to fresh air
- **Eye contact** » Rinse immediately with plenty of water and seek medical advice.
- **Skin contact** » Not applicable
- **Ingestion** » Not applicable

5. Fire Hazard Data

- **Extinguishing Media** » Water, Dry Chemical , CO₂, Foam
- **Fire Fighting Instructions** » Keep personnel removed and upwind of fire
» Wear self-contained breathing apparatus.



6. Accidental Release Measures

- **Safeguard (Personnel)** » NOTE: Review Fire Fighting Instruction and Handling (Personnel) sections before proceeding with clean-up, Use appropriate Personal Protective during clean up
- **Spill Clean Up** » Not applicable

7. Storage and Handling

- **Handling (Personnel)**
 - » Avoid breathing dust generated during sawing, sanding, routing or drilling.
 - » Avoid breathing fumes generated during sawing, sanding, routing or drilling.
- **Storage**
 - » Store slabs either on an A-frame or on vertical racks.
 - » Avoid exposure under direct sunlight

8. Exposure Controls and Personal Protection

- **Engineering Controls (Ventilation)**
 - » Use ventilation that is adequate to keep employee exposure to air borne concentrations below exposure limits.
 - » National occupation exposure limits
 - 0.3mg/m³ OSHA TWA (total dust) - Quartz
 - 0.1mg/m³ OSHA TWA (airborne particles of respirable size) - Quartz
- **Personal Protection**
 - » Protective equipment : Eye / Face / Hand Protection
 - » Wear safety protector during operations such as sawing, sanding, drilling or routing.

9. Physical and Chemical Data

- **Safety Data**
 - » Decomposition temperature None
 - » Water solubility Insoluble
- **Appearance as delivered**
 - » Form Solid , sheets and shaped articles
 - » Color Various
 - » Odor None (Negligible odor)
 - » Physical condition
- **Flash point** » Not applicable
- **Auto ignition temperature** » Not applicable

10. Stability and Reactivity

- **Stability** » Stable
- **Conditions to avoid** » Stable at normal condition
- **Incompatibility(Materials to avoid)** » None reasonably foreseeable
- **Hazardous decomposition product**
 - » In the event of fire carbon monoxide hydrocarbon smoke may be produced
 - » Fumes of metal oxides and mica particles could also be released.

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11. Toxicological Information

- Operations such as sawing, routing, drilling and sanding can generate dust.
- High concentrations of dust can irritate eyes, nose and respiratory system and cause coughing and sneezing.
- Dust generated during handling of quartz surfacing products can contain particles of quartz (crystalline silica).
- Overexposure to airborne quartz can cause silicosis.
- Symptoms if silicosis include coughing, difficulty breathing, wheezing and progressive impairment of lung function.
- Epidemiology studies show limited evidence of an lung cancer in occupations involving exposure to crystalline silica(quartz), such as stone cutters and granite industry workers.

12. Ecological Information

- **Biodegradation** » No information available
- **Bioaccumulation** » No information available
- **Aquatic Toxicity** » No information available (The product is insoluble and sinks in water)

※ When properly handled and used in accordance with guidelines our experience suggests there no negative effects to be expected upon the environment.

13. Disposal Considerations

- Waste should be disposed of in a place certified to accept such materials in accordance with federal, state, and local regulations.
- **Contaminated packaging** » Not applicable

14. Transport Information

- Product is not classified for any mode of transportation

15. Regulatory Information

- **This product does not require labeling**

※ Quartz	U.S.A	CERCLA103(40CFR302.4)	none	
		SARA302 (40CFR355.30)	none	
		SARA304 (40CFR355.40)	none	
		SARA313 (40CFR372.65)	none	
		OSHA313 (29CFR1910.119)	none	
		SARA311/312 (40CFR370.21)	- acute	no
			- chronic	yes
			- fire	no
			- reactivity	no

※ The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Applications / Advantages

Applications

- **Commercial Uses** Flooring & Inlays / Conference Tables / Reception & Desks
Countertops & Credenzas / Lobby & Interior Walls
- **Residential Uses** Kitchen Countertops / Kitchen Islands & Peninsulas / Bathroom Vanity Tops
Shower Stalls & Tub Surrounds / Tabletops
- **Hanstone Slab Specification**

Thickness	Width	Length	Weight
2 cm	140 cm	305 cm	205 kg
3 cm	140 cm	305 cm	307 kg

※ 1.2cm thickness is upon special order request

Advantages

- Natural quartz is one of nature's hardest surfaces. In fact, it's twice as hard as granite. HanStone Quartz is not only a high-performing surface, but is also a luxurious, durable, low maintenance surface product which offers the following advantages:
 - » Available in 50 patterns featuring the industry's most natural-appearing finish
 - » Non-porous and requires no sealing
 - » Lustrous surface requires no conditioning or polishing
 - » Heat, bacteria and stain resistant
 - » Chip and scratch resistant
 - » Easy to maintain and clean mild soap and water
 - » Safe-tested and certified by the National Sanitation for Food Safety and Food Contact under the NSF 51 Certification
 - » Backed by a Commercial/Residential 10-Year Limited Warranty
 - » GREENGUARD Indoor Air Quality Certified®
 - » GREENGUARD for Children & Schools

No other surface can match the combination of all these benefits. HanStone Quartz is designed for high-traffic areas such as offices, banks, hotels and restaurants, where applications can also include walls, reception areas, serving areas, table tops, staircases and much more.

Comparison of Properties

Property	Unit	HanStone Quartz	Granite	Marble	Acrylic Solid Surfaces
Gravity	g/cm ³	2.38	2.65	2.70	1.80
Flexural Strength	MPa	42.4	14.0	11.0	63.4
Compressive Strength	MPa	207	150	120	73
Water Absorption	%	0.01	0.35	0.30	0.03