

SAFETY DATA SHEET - SILICA-FREE QUARTZ

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1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**1.1 Product Identifier**

Product Name: SILICA-FREE QUARTZ (ENGINEERED QUARTZ STONE)
Country of Origin: China
Synonyms: Engineered quartz surface, artificial quartz stone, composite quartz

1.2 Uses and Uses Advised Against

Engineered quartz stone can be used for kitchen benchtops, bathroom vanities, wall cladding, flooring, and decorative applications. Suitable for interior use and some exterior applications. Excellent resistance to stains and acids compared to natural stone. Not recommended for high-temperature applications above 150°C.

1.3 Emergency Telephone Numbers

Emergency: 13 11 26 (Poisons Information Centre)

2. HAZARDS IDENTIFICATION**2.1 Classification of the Substance or Mixture****CLASSIFIED AS NON-HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA**

The solid quartz product as supplied is classified as non-hazardous under normal conditions. This engineered product is specifically formulated to be silica-free, eliminating the primary health hazard associated with natural stone cutting and fabrication.

Physical Hazards: Not classified as a Physical Hazard
Health Hazards: Not classified as a Health Hazard
Environmental Hazards: Not classified as an Environmental Hazard

2.2 GHS Label Elements

Signal Word: None required
Hazard Statements: None required
Pictograms: None required

Precautionary Statements:

- Wear appropriate PPE during cutting and fabrication
- Use adequate ventilation during processing
- Follow safe manual handling procedures for heavy slabs

2.3 Other Hazards

Heavy slabs present manual handling hazards. Dust generated during cutting may cause mechanical irritation but does not contain hazardous crystalline silica.

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances/Mixtures**

Ingredient	CAS Number	EC Number	Content (w/w)
POLYMER RESIN BINDER	Various	Various	5-15%
SILICA-FREE MINERAL FILLERS	Various	Various	80-90%
PIGMENTS AND ADDITIVES	Various	Various	<5%
GLASS PARTICLES (if present)	65997-17-3	266-046-0	0-10%

Ingredient Notes: Composition is proprietary and varies by manufacturer. This product is specifically engineered to contain no crystalline silica. Based on SGS testing, this material demonstrates excellent physical properties without silica content.

4. FIRST AID MEASURES**4.1 Description of First Aid Measures**

Eye (Dust exposure): Flush gently with running water for at least 15 minutes, irrigating under eyelids. Remove contact lenses if present and easily removable. Seek medical attention if irritation persists.

Inhalation (Dust exposure): Remove from contaminated area to fresh air. If breathing is difficult, seek medical attention. Due to silica-free composition, respiratory hazards are minimal.

Skin (Dust exposure): Remove contaminated clothing. Wash skin thoroughly with soap and water. Seek medical attention if irritation develops or persists.

Ingestion: Due to product form and application, ingestion is considered unlikely. If ingested, do not induce vomiting. Rinse mouth with water and seek medical advice.

4.2 Most Important Symptoms and Effects

Minimal health hazards due to silica-free composition. Primary concerns are mechanical irritation from dust and manual handling injuries from heavy slabs.

4.3 Immediate Medical Attention and Special Treatment Needed

Treat symptomatically. Inform medical personnel that this is a silica-free engineered stone product.

First Aid Facilities: Eye wash stations should be available in work areas where dust generation is possible.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Suitable: Use extinguishing media appropriate for surrounding fire.

Unsuitable: None known.

5.2 Special Hazards Arising from the Substance

Non-combustible. Polymer binders may produce smoke and toxic gases if exposed to high temperatures. No significant fire hazards under normal conditions.

5.3 Advice for Firefighters

No special fire fighting procedures required. Wear standard firefighting protective equipment. Be aware of potential smoke from polymer components at high temperatures.

5.4 Hazchem Code

None allocated.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Wear appropriate PPE as outlined in Section 8. Ensure adequate ventilation. Minimal dust hazards due to silica-free composition.

6.2 Environmental Precautions

Prevent material from entering drains, waterways, or soil. Product is not environmentally hazardous and contains no toxic components.

6.3 Methods of Cleaning Up

Large pieces: Collect manually with appropriate lifting equipment. Use mechanical aids for heavy pieces.

Dust/Small pieces: Standard vacuum or sweeping methods are acceptable. HEPA filtration not required due to silica-free composition. Dispose of waste according to local regulations.

6.4 Reference to Other Sections

See Sections 8 and 13 for exposure controls and disposal requirements.

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Use appropriate manual handling techniques for heavy slabs. Ensure adequate ventilation when cutting or grinding. Use standard cutting methods - wet cutting not specifically required for health reasons but may improve tool life and finish quality. Wear appropriate PPE during fabrication.

7.2 Conditions for Safe Storage

Store in dry, well-ventilated areas. Protect from impact and extreme temperature variations. Store slabs vertically in appropriate racking systems. Ensure adequate support to prevent breakage.

7.3 Specific End Uses

Interior architectural applications, kitchen and bathroom countertops, wall cladding, flooring, and decorative elements. Suitable for commercial and residential use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Exposure Standards:

Ingredient	Reference	TWA (mg/m ³)	STEL (mg/m ³)
Nuisance Dust	SWA [AUS]	10	-

Note: No crystalline silica exposure limits apply as this product is silica-free.

8.2 Exposure Controls

Engineering Controls: Use local exhaust ventilation during cutting/grinding operations for dust control and comfort. Standard ventilation adequate due to non-hazardous composition.

Personal Protective Equipment:

- **Respiratory:** Standard dust mask (P1) adequate for comfort during cutting operations
- **Eye/Face:** Safety glasses with side shields; dust goggles during cutting operations
- **Hands:** Cut-resistant gloves for handling; chemical-resistant gloves if using adhesives/sealers
- **Body:** Long-sleeved shirts and long pants; standard work clothing adequate
- **Feet:** Safety boots with slip-resistant soles

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Property	Value
Appearance	Engineered stone surface, various colors and patterns
Odour	Odourless
Density	2418 kg/m ³ (per SGS test report)
Hardness (Mohs)	6 (per SGS test report)
Water Absorption	0.02% (per SGS test report)
pH	Neutral (6-8)

Solubility	Insoluble in water and most solvents
Thermal Resistance	Up to 150°C
Flexural Strength (Dry)	37.4 MPa (per SGS test report)
Flexural Strength (Wet)	42.0 MPa (per SGS test report)
Compressive Strength (Dry)	284 MPa (per SGS test report)
Compressive Strength (Wet)	282 MPa (per SGS test report)

10. STABILITY AND REACTIVITY

10.1 Reactivity

Chemically stable and non-reactive under normal conditions. Excellent acid resistance compared to natural stone.

10.2 Chemical Stability

Stable under normal conditions. Superior chemical resistance to natural stone products.

10.3 Possibility of Hazardous Reactions

No hazardous reactions expected under normal use conditions.

10.4 Conditions to Avoid

Avoid exposure to temperatures above 150°C which may affect polymer binders.

10.5 Incompatible Materials

Strong oxidizing agents at elevated temperatures may affect polymer components.

10.6 Hazardous Decomposition Products

At temperatures above 200°C, polymer binders may decompose producing carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

Acute Toxicity: Non-toxic. Silica-free composition eliminates primary health hazard of natural stone.

Skin Contact: May cause minimal mechanical irritation from dust. Not a skin sensitizer.

Eye Contact: Dust may cause mechanical irritation. Not corrosive.

Inhalation: Dust may cause minimal respiratory tract irritation. No silica-related health concerns.

Ingestion: Large amounts may cause gastrointestinal discomfort. Not expected to be toxic.

Carcinogenicity: No carcinogenic components. Specifically formulated to be silica-free.

Chronic Effects: No chronic health effects expected due to silica-free composition.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Not expected to be toxic to aquatic or terrestrial organisms.

12.2 Persistence and Degradability

Environmentally persistent but inert. Does not degrade to produce harmful substances.

12.3 Bioaccumulative Potential

No bioaccumulation expected.

12.4 Mobility in Soil

Low mobility due to insoluble nature.

12.5 Other Adverse Effects

No adverse environmental effects expected. Radioactivity testing shows Class A compliance (per SGS report).

13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Reuse: Preferred option - can be reclaimed for various applications.

Recycling: Can be processed for use in construction applications.

Disposal: Non-hazardous waste. Dispose at licensed construction and demolition waste facilities.

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS DANGEROUS GOODS

No special transport requirements. Secure loads properly to prevent shifting during transport.

15. REGULATORY INFORMATION

15.1 Regulatory Status

AIIC: All components listed on Australian Inventory of Industrial Chemicals.

SUSMP: No poison schedule assigned.

Work Health and Safety: Standard WHS regulations apply - no special silica-related requirements.

Radioactivity: Complies with Class A requirements per GB 6566-2010 testing.

16. OTHER INFORMATION

Revision Information

Date of Preparation: 18.07.25

Prepared by: Attila's Natural Stone and Tiles Pty Ltd

Revision: 1

Additional Information

This SDS applies to silica-free engineered quartz products. Physical properties confirmed by SGS testing (Report No. XMIN190601296CCM-01). This product offers the aesthetic appeal of natural stone with enhanced performance and safety characteristics due to its silica-free engineered composition.

Key Advantages:

- Silica-free composition eliminates respiratory health hazards
- Superior strength and durability (confirmed by SGS testing)
- Excellent chemical and stain resistance
- Low water absorption (0.02%)
- Class A radioactivity compliance

Emergency Contact: 13 11 26 (Poisons Information Centre)