

NATURAL STONE - DOLOMITE

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1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product Identifier

Product Name: NATURAL STONE - DOLOMITE
Country of Origin: Europe (Italy, Spain, Germany)
Synonyms: Dolomitic limestone, calcium magnesium carbonate rock, dolostone

1.2 Uses and Uses Advised Against

Natural dolomite can be used for benchtops, tiles, flooring, wall cladding, sculptures, and decorative applications. Suitable for interior and exterior use. More acid-resistant than marble but still requires sealing in high-acid environments. Commonly used in construction aggregate and dimension stone applications.

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 HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

The solid dolomite product as supplied is classified as non-hazardous under normal conditions. However, dust created when the product is cut, ground, or machined may contain crystalline silica (typically 2-10% in dolomite) and cause mechanical irritation. Repeated exposure to respirable crystalline silica dust may cause lung fibrosis (silicosis).

Physical Hazards: Not classified as a Physical Hazard
Health Hazards: Carcinogenicity: Category 1A (when dust is generated)
Environmental Hazards: Not classified as an Environmental Hazard

2.2 GHS Label Elements

Signal Word: DANGER
Hazard Statements: H350i May cause cancer by inhalation

Prevention Statements:

- P201 Obtain special instructions before use
- P202 Do not handle until all safety precautions have been read and understood
- P280 Wear protective gloves/protective clothing/eye protection/face protection

Response Statements:

- P308 + P313 IF exposed or concerned: Get medical advice/attention

Storage Statements:

- P405 Store locked up

Disposal Statements:

- P501 Dispose of contents/container in accordance with relevant regulations

2.3 Other Hazards

Dolomite is moderately acid-resistant but may react slowly with strong acids producing carbon dioxide gas. Heavy slabs present manual handling hazards. More durable than marble in acidic environments.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances/Mixtures

Ingredient	CAS Number	EC Number	Content (w/w)
CALCIUM MAGNESIUM CARBONATE (CaMg(CO ₃) ₂)	16389-88-1	240-440-2	80-95%
CALCIUM CARBONATE	471-34-1	207-439-9	5-15%
QUARTZ (CRYSTALLINE SILICA)	14808-60-7	238-878-4	2-10%
IRON OXIDES	1309-37-1	215-168-2	<3%
OTHER MINERALS	-	-	<5%

Ingredient Notes: Composition varies by quarry location and dolomite type. Dolomite typically contains higher silica content than marble but lower than sandstone.

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, administer oxygen. If not breathing, give artificial respiration. Seek immediate medical attention.

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

Primary hazard is from dust generation during cutting, grinding, or polishing operations. Symptoms may include respiratory irritation, coughing, and potential long-term lung effects from silica exposure.

4.3 Immediate Medical Attention and Special Treatment Needed

Treat symptomatically. Inform medical personnel of potential silica and carbonate dust exposure.

First Aid Facilities: Eye wash stations and emergency showers 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. When exposed to acids or high temperatures, may release carbon dioxide gas. No toxic gases produced under normal fire conditions.

5.3 Advice for Firefighters

No special fire fighting procedures required. Wear standard firefighting protective equipment.

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. Avoid generating dust clouds.

6.2 Environmental Precautions

Prevent material from entering drains, waterways, or soil. Dolomite is not environmentally hazardous but may alter local pH if large quantities enter water systems.

6.3 Methods of Cleaning Up

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

Dust/Small pieces: Use HEPA vacuum or wet sweeping methods. Do not dry sweep. 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 wet cutting methods where possible to minimize dust generation. Wear appropriate PPE during fabrication.

7.2 Conditions for Safe Storage

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

7.3 Specific End Uses

Interior and exterior architectural applications, countertops, flooring, wall cladding, sculptures, decorative elements, and construction aggregate.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Exposure Standards:

Ingredient	Reference	TWA (mg/m ³)	STEL (mg/m ³)
Quartz (respirable dust)	SWA [AUS]	0.05	-
Calcium Carbonate	SWA [AUS]	10	-

8.2 Exposure Controls

Engineering Controls: Use local exhaust ventilation during cutting/grinding operations. Wet cutting methods preferred. Ensure adequate general ventilation.

Personal Protective Equipment:

- **Respiratory:** P2 particulate respirator when dust generation is possible
- **Eye/Face:** Safety glasses with side shields; dust goggles during cutting operations
- **Hands:** Cut-resistant gloves for handling; chemical-resistant gloves if using sealers/cleaners
- **Body:** Long-sleeved shirts and long pants; protective coveralls during dusty operations
- **Feet:** Safety boots with slip-resistant soles

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Property	Value
Appearance	Crystalline stone, typically white, grey, pink, or beige
Odour	Odourless
Density	2.8-2.9 g/cm ³
Hardness (Mohs)	3.5-4
Porosity	0.5-5%
pH	8-9 (alkaline)
Solubility	Slowly soluble in dilute acids
Melting Point	740°C (decomposes)
Thermal Conductivity	3.0-4.0 W/m·K
Compressive Strength	120-300 MPa

10. STABILITY AND REACTIVITY

10.1 Reactivity

Generally stable. Reacts slowly with acids to produce carbon dioxide gas and soluble calcium and magnesium salts.

10.2 Chemical Stability

Stable under normal conditions. More resistant to acid weathering than marble.

10.3 Possibility of Hazardous Reactions

Acids: Reacts with acids (HCl, H₂SO₄, etc.) producing CO₂ gas and heat. Reaction is slower than marble but can be vigorous with strong acids.

10.4 Conditions to Avoid

Avoid contact with strong acids. Minimize dust generation during processing.

10.5 Incompatible Materials

Strong acids, acidic cleaners, some sealers containing acids.

10.6 Hazardous Decomposition Products

Carbon dioxide, calcium oxide, and magnesium oxide at high temperatures (>740°C).

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

Acute Toxicity: Low toxicity. Calcium magnesium carbonate has low acute toxicity.

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

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

Inhalation: Dust may cause respiratory tract irritation. Primary concern is crystalline silica content.

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

Carcinogenicity: Crystalline silica component is classified as Group 1 carcinogen by IARC.

Chronic Effects: Prolonged inhalation of respirable dust may cause silicosis.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Not expected to be toxic to aquatic or terrestrial organisms.

12.2 Persistence and Degradability

Environmentally persistent. Slowly weathers in acidic conditions but more resistant than marble.

12.3 Bioaccumulative Potential

No bioaccumulation expected.

12.4 Mobility in Soil

Low mobility due to low solubility.

12.5 Other Adverse Effects

May increase pH of water systems if large quantities are introduced.

13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Reuse: Preferred option - can be reclaimed for aggregate or decorative applications.

Recycling: Can be crushed for road base, construction fill, or agricultural lime supplement.

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: Comply with WHS regulations for respirable crystalline silica.

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 natural dolomite products from various global sources. Composition may vary by specific quarry location. Always use appropriate dust control measures during fabrication. Dolomite typically shows greater durability than marble in acidic environments.

Emergency Contact: 13 11 26 (Poisons Information Centre)