

Material Safety Data Sheet (MSDS)

Limestone (Calcium Carbonate)

Chemical Name: Calcium Carbonate (CaCO₃) | CAS No. 1317-65-3

1. Identification of the Substance and Supplier

Product Name	Limestone (Calcium Carbonate)
Chemical Formula	CaCO ₃
CAS No.	1317-65-3
Synonyms	Limestone, ground calcium carbonate, calcite, agricultural lime
Product Use	Steel flux, cement, glass, lime calcination, agriculture, FGD
Supplier	Ochnology Solution Pvt. Ltd., B-153, Sector-4 Defence Colony, Dehradun, Uttarakhand, India – 248001
Contact	projects@ochnology.com +91 9286823642/43

2. Hazards Identification

GHS Classification: Not classified as hazardous under GHS. May cause mechanical irritation as a nuisance dust.

- Not classified as a hazardous substance or mixture under GHS criteria
- Dust may cause mechanical irritation to eyes, skin, and respiratory tract
- Prolonged inhalation of dust may cause respiratory discomfort
- No significant fire or explosion hazard

3. Composition / Information on Ingredients

Component	CAS No.	Concentration
Calcium Carbonate (CaCO ₃)	1317-65-3	>90%
Magnesium Carbonate (MgCO ₃)	546-93-0	0 – 5%
Silica & other minerals	Various	Balance

4. First-Aid Measures

Inhalation: Move to fresh air. Seek medical attention if irritation persists.

Skin Contact: Wash with soap and water. Remove contaminated clothing.

Eye Contact: Rinse cautiously with water for several minutes. Seek medical attention if irritation persists.

Ingestion: Rinse mouth with water. Do not induce vomiting. Seek medical attention if discomfort occurs.

5. Fire-Fighting Measures

- Non-combustible material; does not present a fire hazard
- Use extinguishing media suitable for surrounding fire
- No special protective equipment required for the material itself
- Firefighters should wear standard protective gear for the surrounding fire

6. Accidental Release Measures

- Avoid generating dust during clean-up
- Collect mechanically (sweep or vacuum) and place in suitable containers
- Wear appropriate PPE (dust mask, goggles, gloves) during clean-up
- Prevent large quantities from entering drains or waterways

7. Handling and Storage

- Avoid dust generation; provide adequate ventilation
- Use appropriate PPE when handling
- Store in a dry, covered area protected from moisture
- Keep away from strong acids (reacts to release carbon dioxide)

8. Exposure Controls / Personal Protection

- Occupational exposure limit (nuisance dust): 10 mg/m³ (total dust), 5 mg/m³ (respirable) – typical reference values
- Provide local exhaust ventilation where dust is generated
- Respiratory protection: dust mask / respirator (N95 or equivalent) where dust limits may be exceeded
- Eye protection: safety goggles; Hand protection: gloves; wear suitable work clothing

9. Physical and Chemical Properties

Property	Value
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Appearance	White to off-white / grey powder, granules or lumps
Odour	Odourless
pH (in suspension)	8 – 9
Melting / Decomposition	Decomposes ~825°C (releases CO ₂)
Solubility in Water	Practically insoluble
Bulk Density	Approx. 1.3 – 2.7 g/cm ³ (form dependent)

10. Stability and Reactivity

- Stable under normal conditions of storage and use
- Decomposes at high temperature (~825°C) releasing carbon dioxide
- Incompatible with strong acids (reacts to release CO₂ gas)
- No hazardous polymerization occurs

11. Toxicological Information

- Low acute toxicity; not classified as toxic
- Dust may cause mechanical irritation to eyes and respiratory tract
- No evidence of carcinogenicity, mutagenicity, or reproductive toxicity
- Prolonged or repeated dust exposure may cause respiratory discomfort

12. Ecological Information

- Not classified as hazardous to the aquatic environment
- Naturally occurring mineral; no significant bioaccumulation
- May locally raise pH and water hardness in large quantities
- No special ecological precautions required under normal use

13. Disposal Considerations

- Dispose of in accordance with local, state, and national regulations
- Inert material; may be disposed of as non-hazardous waste where permitted
- Avoid release of large quantities into drains or watercourses

14. Transport Information

UN Number	Not regulated
Proper Shipping Name	Not classified as dangerous goods
Hazard Class	Not applicable
Packing Group	Not applicable
Remarks	Not regulated for transport by road, rail, sea, or air

15. Regulatory Information

- Not classified as hazardous under GHS
- Listed on major chemical inventories as calcium carbonate (CAS 1317-65-3)
- Comply with applicable local occupational dust exposure regulations

16. Other Information

This MSDS has been prepared in accordance with the GHS 16-section format. Information relates to the specific material designated and may not be valid for use in combination with other materials or in processes other than those specified.

Disclaimer: The information in this MSDS is provided in good faith and is based on current knowledge. It is intended as a guide for safe handling, use, storage, and disposal, and is not a warranty of quality. Ochnology Solution Pvt. Ltd. accepts no liability for loss or damage arising from its use. Users are responsible for ensuring suitability and safety for their own conditions of use.