

Material Safety Data Sheet (MSDS)

Wollastonite (Calcium Metasilicate)

Chemical Name: Calcium Metasilicate (CaSiO₃) | CAS No. 13983-17-0

1. Identification of the Substance and Supplier

Product Name	Wollastonite (Calcium Metasilicate)
Chemical Formula	CaSiO ₃
CAS No.	13983-17-0
Synonyms	Wollastonite, calcium metasilicate, calcium silicate
Product Use	Ceramics, plastics reinforcement, paints, friction materials, metallurgy
Supplier	Ochnology Solution Pvt. Ltd., B-153, Sector-4 Defence Colony, Dehradun, Uttarakhand, India – 248001
Contact	projects@ochnology.com bd@ochnology.com

2. Hazards Identification

GHS Classification: Wollastonite is generally not classified as hazardous under GHS. Dust may cause mechanical irritation; acicular (needle-like) particles may irritate skin, eyes, and airways.
Signal word: WARNING (dust).

- Wollastonite is generally not classified as a hazardous substance under GHS
- Dust may cause mechanical irritation to eyes, skin, and respiratory tract
- Acicular (needle-like) particles can cause mechanical skin / eye / airway irritation
- Not classified as a carcinogen; IARC concluded it is not classifiable (Group 3)
- May contain trace free crystalline silica depending on source

3. Composition / Information on Ingredients

Component	CAS No.	Concentration
Wollastonite (Calcium Metasilicate, CaSiO ₃)	13983-17-0	>90%
Free Crystalline Silica (Quartz)	14808-60-7	Variable (typically low)
Iron & other oxides	Various	Balance

4. First-Aid Measures

Inhalation: Move to fresh air. Seek medical attention if respiratory irritation or breathing difficulty persists.

Skin Contact: Wash with soap and water. Acicular dust may cause mechanical irritation; remove from skin gently.

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

Ingestion: Rinse mouth with water. Wollastonite is inert; seek medical attention if discomfort occurs.

5. Fire-Fighting Measures

- Non-combustible material; does not present a fire or explosion hazard
- Use extinguishing media appropriate to the 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 airborne dust during clean-up
- Collect using wet methods or vacuum with HEPA filtration where possible
- Wear appropriate PPE (respirator, goggles, gloves) during clean-up
- Place collected material in suitable labelled containers for reuse or disposal

7. Handling and Storage

- Minimise dust generation; use local exhaust ventilation
- Avoid inhalation of dust and skin/eye contact with acicular particles
- Use appropriate respiratory protection where dust limits may be exceeded
- Store in a dry, covered area; keep bags sealed to maintain quality

8. Exposure Controls / Personal Protection

- Wollastonite (inhalable / total dust): 10 mg/m³; respirable 5 mg/m³ – typical reference values
- Respirable crystalline silica (if present) OEL: 0.05 mg/m³ (8-hr TWA) – typical reference
- Provide local exhaust ventilation where dust is generated
- Respiratory protection (N95/P2), safety goggles, gloves, and suitable work clothing

9. Physical and Chemical Properties

Property	Value
Appearance	White to off-white acicular (needle-like) powder or lumps
Odour	Odourless
pH (in suspension)	Approx. 9 – 10 (alkaline)
Melting Point	Approx. 1,540°C
Solubility in Water	Practically insoluble
Bulk Density	Approx. 0.4 – 1.0 g/cm ³ (form dependent)

10. Stability and Reactivity

- Stable under normal conditions of storage and use
- Chemically inert; high melting point
- Incompatible with strong acids (slowly decomposed, releasing silica gel)
- No hazardous polymerization occurs

11. Toxicological Information

- Low acute toxicity; wollastonite is inert and not significantly absorbed
- Dust and acicular particles may cause mechanical irritation
- Not classified as carcinogenic (IARC Group 3 – not classifiable)
- Respirable crystalline silica (if present) – repeated inhalation can cause silicosis

12. Ecological Information

- Not classified as hazardous to the aquatic environment
- Naturally occurring inert mineral; no significant bioaccumulation
- May locally raise pH (alkaline) in large quantities
- No significant ecological effects expected 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 solid waste where permitted
- Preferably reuse or recycle; avoid dust release during disposal

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

- Wollastonite not classified as hazardous under GHS
- Respirable crystalline silica content (if any) subject to occupational exposure regulations
- Listed on major chemical inventories as wollastonite / calcium silicate (CAS 13983-17-0)

16. Other Information

This MSDS has been prepared in accordance with the GHS 16-section format and covers natural and surface-treated wollastonite. Although acicular, wollastonite is not classified as a carcinogen (IARC Group 3). Appropriate dust controls and respiratory protection should be used. Information relates to the specific material designated.

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.