

MSDS – Magnesium Trisilicate

MATERIAL SAFETY DATA SHEET (MSDS) / SAFETY DATA SHEET (SDS)

1. Identification

Product Name: Magnesium Trisilicate

Synonyms: Magnesium silicate, Trisilicate of magnesium

Chemical Formula: $\text{Mg}_2\text{Si}_3\text{O}_8 \cdot x\text{H}_2\text{O}$

CAS Number: 14987-04-3

Recommended Use: Pharmaceutical antacid, adsorbent, laboratory reagent

Restrictions on Use: Industrial or laboratory use only unless pharmaceutical grade

2. Hazard(s) Identification

GHS Classification:

Not classified as hazardous under GHS

Hazard Statements:

May cause mild mechanical irritation to eyes and respiratory tract if inhaled as dust

Precautionary Statements:

Avoid generating dust

Use adequate ventilation

Wear appropriate personal protective equipment

Emergency Overview:

White or off-white, odourless powder

Low toxicity under normal handling conditions

3. Composition / Information on Ingredients

Component	CAS No.	Concentration
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Magnesium Trisilicate	14987-04-3	≥ 98%
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4. First-Aid Measures

Inhalation: Remove to fresh air. Seek medical attention if symptoms persist.

Skin Contact: Wash with soap and water.

Eye Contact: Rinse cautiously with water for several minutes.

Ingestion: Rinse mouth. Seek medical advice if large amounts are swallowed.

5. Fire-Fighting Measures

Flammability: Non-flammable

Suitable Extinguishing Media: Water spray, dry chemical, CO_2 , foam

Hazardous Combustion Products: None known

Protective Equipment: Standard fire fighting gear

6. Accidental Release Measures

Avoid dust formation

Sweep up and collect in suitable container

Dispose according to local regulations

7. Handling and Storage

Handling:

Avoid inhalation of dust

Use in well-ventilated areas

Storage:

Store in a cool, dry place
Keep container tightly closed

8. Exposure Controls / Personal Protection

Exposure Limits: No established occupational exposure limits
Engineering Controls: Local exhaust ventilation recommended
Personal Protective Equipment (PPE):
Safety goggles
Dust mask or respirator if dusty
Protective gloves

9. Physical and Chemical Properties

Appearance: White to off-white powder
Odour: Odourless
pH: Slightly alkaline (in aqueous suspension)
Solubility: Insoluble in water
Melting Point: > 1000°C
Density: ~2.0 g/cm³

10. Stability and Reactivity

Chemical Stability: Stable under normal conditions
Reactivity: No dangerous reactions known
Conditions to Avoid: Excessive dust generation
Incompatible Materials: Strong acids

11. Toxicological Information

Acute Toxicity: Low toxicity
Skin/Eye Irritation: May cause mild irritation
Carcinogenicity: Not listed as carcinogenic by IARC, NTP, or OSHA

12. Ecological Information

Not expected to be harmful to aquatic life
No bioaccumulation expected

13. Disposal Considerations

Dispose of contents/container in accordance with local, regional, and national regulations

14. Transport Information

UN Number: Not regulated
Transport Hazard Class: Not hazardous
Packing Group: Not applicable

15. Regulatory Information

Not classified as hazardous under OSHA, GHS, or EU CLP
Complies with general chemical safety standards when properly handled

16. Other Information

Revision Date: 18th July 2023

Disclaimer:

This MSDS is provided for informational purposes only and is believed to be accurate. It does not

constitute a guarantee or specification of quality. Users must determine suitability for their specific application.