

Material Safety Data Sheet (MSDS)

Product Name: Magnesium Chloride Hexahydrate IP Grade

MSDS Generate Date: 20-05-2017

Revision Date: 30-12-2024

Supplier:

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1. Identification of the Substance/Preparation and Company

Product Name: Magnesium Chloride Hexahydrate IP Grade

Chemical Formula: $MgCl_2$

Synonyms: Magnesium dichloride, Bischofite

Recommended Use: Pharmaceutical applications, laboratory reagent, food and nutraceutical formulations, industrial use.

2. Hazards Identification

Classification (GHS):

- Not classified as hazardous under normal handling conditions.

Signal Word: None

Hazard Statements:

- May cause mild irritation to eyes, skin, and respiratory tract.
- Hygroscopic – absorbs moisture from air.

Precautionary Statements:

- Avoid contact with eyes and skin.
- Store in a dry and well-ventilated place.

3. Composition / Information on Ingredients

Chemical Name: Magnesium Chloride

CAS Number: 7786-30-3

Purity: $\geq 99\%$ (IP Grade)

Molecular Weight: 95.21 g/mol

4. First Aid Measures

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

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

Inhalation: Move to fresh air. Get medical attention if symptoms occur.

Ingestion: Rinse mouth and drink plenty of water. Seek medical advice if large amounts are swallowed.

5. Fire-Fighting Measures

Suitable Extinguishing Media: Water spray, dry chemical, foam, or CO₂.

Specific Hazards: Non-combustible; however, may decompose on heating to produce toxic fumes of hydrogen chloride gas.

Protective Equipment: Wear self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

Personal Precautions: Avoid dust formation and inhalation. Wear suitable protective equipment.

Environmental Precautions: Prevent further leakage or spillage. Avoid contamination of water sources.

Methods for Cleaning Up: Sweep up and collect in suitable, labeled containers for disposal. Wash the area with water.

7. Handling and Storage

Handling: Avoid contact with skin and eyes. Prevent dust generation.

Storage: Store in a cool, dry, and well-ventilated place. Keep container tightly closed and away from moisture.

Incompatible Materials: Strong oxidizing agents, strong acids.

8. Exposure Controls / Personal Protection

Exposure Limits: Not established.

Engineering Controls: Provide adequate ventilation.

Personal Protective Equipment:

- **Respiratory Protection:** Dust mask if airborne concentrations are high.
 - **Eye Protection:** Safety goggles.
 - **Skin Protection:** Gloves and protective clothing.
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9. Physical and Chemical Properties

Appearance: White crystalline solid

Odor: Odorless

Taste: Slightly bitter, saline

pH (5% solution): 6.5 – 7.5

Melting Point: 714°C

Boiling Point: Decomposes before boiling

Solubility: Soluble in water and alcohol

Density: 2.32 g/cm³

Hygroscopic: Yes

10. Stability and Reactivity

Chemical Stability: Stable under recommended storage conditions.

Reactivity: Hygroscopic; reacts with moisture.

Incompatible Materials: Strong acids, oxidizing agents.

Decomposition Products: Hydrogen chloride gas when heated to decomposition.

11. Toxicological Information

Acute Toxicity (oral, rat): LD₅₀ = 8100 mg/kg

Skin Irritation: Mild irritation possible with prolonged exposure.

Eye Irritation: May cause mild irritation.

Chronic Effects: None known for normal use.

Carcinogenicity: Not classified as carcinogenic.

12. Ecological Information

Ecotoxicity: Low toxicity to aquatic organisms.

Persistence and Degradability: Inorganic compound; non-biodegradable.

Bioaccumulative Potential: Does not bioaccumulate.

Mobility in Soil: Soluble and mobile in water.

13. Disposal Considerations

Dispose of waste in accordance with local, regional, and national regulations. Avoid discharge into drains or natural water sources.

14. Transport Information (Detailed)

UN Number: Not applicable

UN Proper Shipping Name: Magnesium Chloride

Transport Hazard Class: Not classified as hazardous for transport

Packing Group: Not applicable

Label Required: None

Environmental Hazards: Not considered environmentally hazardous

Special Precautions for User:

- Avoid moisture exposure during transportation.
- Transport in tightly sealed bags or containers to prevent caking.

- Ensure containers are secured and upright to avoid spills.
Transport in Bulk (Annex II of MARPOL / IBC Code): Not regulated as bulk transport under MARPOL.

Mode-wise Information:

- **Road/Rail Transport (ADR/RID):** Not restricted.
- **Sea Transport (IMDG):** Not restricted; keep dry.
- **Air Transport (ICAO/IATA):** Not restricted; ensure packaging prevents moisture contact.

Additional Information:

Magnesium Chloride IP Grade is non-flammable, non-toxic, and safe for general transportation when properly packaged. Handle with standard precautions to prevent dust formation and moisture absorption.

15. Regulatory Information

Regulation: Not listed as a hazardous chemical under any major international regulations (OSHA, REACH, CLP).

Labeling: No hazard label required.

Compliance: Meets Indian Pharmacopoeia (IP) standards.

16. Other Information

Disclaimer: The information provided in this MSDS is believed to be accurate and reliable as of the date of revision.

- **MSDS Generate Date:** 20-05-2017
- **Revision Date:** 30-12-2024
- **Website:** www.rawpharmabiz.com
- MSDS are based on the manufacturer's provided information.