

Material Safety Data Sheet (MSDS)

Product Name: Vitamin B1 (Thiamine Hydrochloride) IP Grade

MSDS Generate Date: 20-05-2017

Revision Date: 30-12-2024

Supplier:

Rawpharma Biz Pvt Ltd

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1. Identification of the Substance/Preparation and Company

- **Product Name:** Vitamin B1 (Thiamine Hydrochloride)
- **Synonyms:** Thiamine Monohydrochloride
- **Grade:** IP Grade
- **Intended Use:** Pharmaceutical, Nutraceutical, Food Supplement

2. Hazards Identification

- **Classification:** Not classified as hazardous under GHS criteria.
- **Health Hazards:** Low toxicity; may cause mild irritation to eyes, skin, or respiratory tract in dust form.
- **Environmental Hazards:** Not considered dangerous for the environment.
- **Label Elements:** None required.

3. Composition / Information on Ingredients

- **Chemical Name:** Vitamin B1 Hydrochloride
- **Molecular Formula:** C₁₂H₁₇CIN₄OS·HCl
- **Molecular Weight:** 337.27 g/mol
- **CAS No.:** 67-03-8
- **Purity:** ≥ 99% (IP Grade)

4. First Aid Measures

- **Inhalation:** Move to fresh air; seek medical attention if symptoms persist.
- **Skin Contact:** Wash with soap and water.
- **Eye Contact:** Rinse immediately with plenty of water; seek medical advice if irritation continues.
- **Ingestion:** Non-toxic; if large amounts ingested, rinse mouth and seek medical attention.

5. Fire-Fighting Measures

- **Suitable Extinguishing Media:** Water spray, foam, dry chemical, CO₂.
- **Special Hazards:** Emits toxic fumes (oxides of carbon, nitrogen, sulfur) under fire conditions.
- **Protective Equipment:** Firefighters should wear self-contained breathing apparatus.

6. Accidental Release Measures

- Avoid dust formation.
- Sweep up and collect in suitable container for disposal.
- Use protective gloves, mask, and goggles.

7. Handling and Storage

- **Handling:** Avoid inhalation of dust; ensure good ventilation.
- **Storage:** Store in a cool, dry, and well-ventilated place. Protect from light and moisture.

8. Exposure Controls / Personal Protection

- **Engineering Controls:** Adequate ventilation.
- **Personal Protection:**
 - Respiratory: Dust mask if dust present.
 - Eye: Safety glasses.
 - Skin: Gloves and protective clothing.

9. Physical and Chemical Properties

- **Appearance:** White to off-white crystalline powder
- **Odor:** Practically odorless
- **Solubility:** Freely soluble in water
- **Melting Point:** 248–252 °C (decomposes)
- **pH (1% solution):** 2.7–3.3
- **Stability:** Stable under recommended conditions

10. Stability and Reactivity

- **Stability:** Stable under normal conditions
- **Incompatible Materials:** Strong oxidizing agents, alkalis
- **Hazardous Decomposition Products:** CO, CO₂, NO_x, SO_x, HCl
- **Polymerization:** Will not occur

11. Toxicological Information

- **Acute Toxicity:** Low
- **Irritation:** May cause mild irritation
- **Sensitization:** Not known to be sensitizer
- **Chronic Effects:** No evidence of carcinogenic, mutagenic, or reproductive toxicity

12. Ecological Information

- **Eco-toxicity:** Not expected to be harmful to aquatic or terrestrial life
- **Persistence/Degradability:** Biodegradable
- **Bioaccumulation:** Not expected

13. Disposal Considerations

- Dispose of in accordance with local regulations.
- Can be incinerated or disposed of in approved landfill.

14. Transport Information (Detailed)

- **UN Number:** Not applicable (Not classified as hazardous for transport)
- **UN Proper Shipping Name:** Not regulated
- **Transport Hazard Class:** Non-hazardous
- **Packing Group:** Not applicable
- **Environmental Hazards:** Not a marine pollutant
- **Special Precautions:**
 - Avoid direct contact with moisture during transport.
 - Protect from physical damage, sunlight, and excessive heat.
 - Use tightly sealed, labeled containers.
- **Regulatory Information:**
 - **ADR/RID (Road/Rail Transport, Europe):** Not regulated
 - **IMDG (Sea Transport):** Not regulated; stow in dry conditions
 - **IATA/ICAO (Air Transport):** Not regulated
- **Additional Notes:**
 - Transport in compliance with Good Distribution Practices (GDP) for pharmaceuticals.
 - Ensure containers remain intact and sealed.
 - No restrictions for passenger or cargo aircraft.

15. Regulatory Information

- **Complies with:** IP, BP, USP standards for pharmaceutical use.
- **Safety Regulations:** Not classified as hazardous according to EU/OSHA regulations.

16. Other Information

- This MSDS is prepared in accordance with international guidelines.
- Information is based on current knowledge and is intended for safe handling, storage, and transport.
- **MSDS Generate Date:** 20-05-2017
- **Revision Date:** 30-12-2024
- **Website:** www.rawpharmabiz.com
- MSDS are based on the manufacturer's provided information.