

MATERIAL SAFETY DATA SHEET

VITAMIN B1

Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Code: 25656
Product Name: VITAMIN B1
Synonyms: 3-[(4-amino-2-methyl-5-pyrimidinyl) methyl]-5-(2-hydroxyethyl)-4-methyl-thiazolium, monochloride, monohydrochloride; Aneurine; Thiamine.

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Relevant identified uses: For research use only, not for human or veterinary use.

1.3 Details of the Supplier of the Safety Data Sheet:

Company Name: RAWPHARMA BIZ PVT LTD
1101-CITY CENTRE-2
SCIENCE CITY ROAD, SOLA
AHMEDABAD, 380060
GUJARAT, INDIA.

Web site address: www.rawpharmabiz.com

1.4 Emergency telephone number: 8320310672

Section 2. Hazards Identification

2.1 **Classification of the Substance or Mixture:**
Serious Eye Damage/Eye Irritation,

Category 2

2.2 **Label Elements:**



GHS Signal Word: Warning

GHS Hazard Phrases:

H319: Causes serious eye irritation.

GHS Precaution Phrases:

P264: Wash {hands} thoroughly after handling.

P280: Wear {protective gloves/protective clothing/eye protection/face protection}.

GHS Response Phrases:

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+313: If eye irritation persists, get medical advice/attention.

GHS Storage and Disposal Phrases:

Please refer to Section 7 for Storage and Section 13 for Disposal information.

2.3 **Adverse Human Health** Causes serious eye irritation.

Effects and Symptoms: Material may be irritating to the mucous membranes and upper respiratory tract.

May be harmful by inhalation, ingestion, or skin absorption.

May cause skin or respiratory system irritation.

To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

Section 3. Composition/Information on Ingredients

CAS # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
59-43-8 X17350000	Thiamine 01-2120773699-31	100.0 %	200-641-8 NA	Eye Damage 2: H319

Section 4. First Aid Measures

4.1 Description of First Aid

Measures:

In Case of Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

In Case of Skin Contact: Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

In Case of Eye Contact: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

In Case of Ingestion: Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

Section 5. Fire Fighting Measures

5.1 Suitable Extinguishing Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. **Media:** Use water spray to cool fire-exposed containers.

Unsuitable Extinguishing A solid water stream may be inefficient.

Media:

5.2 Flammable Properties No data available.

Hazards:

No data available.

Flash Pt: No data.

Explosive Limits: LEL: No data.

UEL: No data.

Autoignition Pt: No data.

5.3

Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

Section 6. Accidental Release Measures

6.1 Protective Precautions, avoid breathing vapors and provide adequate ventilation.

Protective Equipment and as conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,

Emergency Procedures: and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

6.2 Environmental Take steps to avoid release into the environment, if safe to do so.

Precautions:

6.3 Methods and Material for Contain spill and collect, as appropriate.

Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with local regulations.

Section 7. Handling and Storage

7.1 Precautions to Be Taken Avoid breathing dust/fume/gas/mist/vapors/spray.

in Handling: Avoid prolonged or repeated exposure.

7.2 Precautions to Be Taken Keep container tightly closed.

in Storing: Store in accordance with information listed on the product insert.

Section 8. Exposure Controls/Personal Protection

8.1 Exposure Parameters:

8.2 Exposure Controls:

8.2.1 Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne
(Ventilation etc.): levels below recommended exposure limits.

8.2.2 Personal protection equipment:

Eye Protection: Safety glasses

Protective Gloves: Compatible chemical-resistant gloves

Other Protective Clothing: Lab coat

Respiratory Equipment NIOSH approved respirator, as conditions warrant.
(Specify Type):

Work/Hygienic/maintenance Do not take internally.

Practices: Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower. Wash thoroughly after handling.

Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Physical States: [] Gas [] Liquid [X]

Solid Appearance and Odor: A crystalline solid

pH: No data.

Melting Point: No data.

Boiling Point: No data.

Flash Pt: No data.

Evaporation Rate: No data.

Flammability (solid, gas): No data available.

Explosive Limits: LEL: No data. UEL: No data.

Vapor Pressure (vs. Air or mmHg): No data.

Hg):

Vapor Density (vs. Air = 1): No data.

Specific Gravity (Water = 1): No data.

Solubility in Water: No data.

Solubility Notes: ~10 mg/ml in PBS (pH 7.2);

Octanol/Water Partition Coefficient: No data.

Coefficient:

Autoignition Pt: No data.

Decomposition Temperature: No data.

Viscosity: No data.

9.2 Other Information

Percent Volatile: No data.

Molecular Formula & Weight: C₁₂H₁₇N₄O₅ • Cl [HCl] 337.3

Section 10. Stability and Reactivity

10.1 Reactivity: No data available.

10.2 Stability: Unstable [] Stable [X]

10.3 Stability Note(s): Stable if stored in accordance with information listed on the product insert. **Polymerization:** Will occur [] Will not occur [X]

10.4 Conditions to Avoid: No data available.

10.5 Incompatibility - Materials strong oxidizing agents To Avoid:

10.6 Hazardous Decomposition or Byproducts: carbon dioxide
carbon monoxide
hydrogen chloride gas
nitrogen oxide
sulfur oxides

Section 11. Toxicological Information

11.1 Information on the toxicological effects of this product have not been thoroughly studied.

Toxicological Effects: Thiamine (hydrochloride) - Toxicity Data: Oral LD50 (rat): 3710 mg/kg; Intraperitoneal LD50 (rat): 481 mg/kg; Subcutaneous LD50 (rat): 560 mg/kg; Oral LD50 (mouse): 8224 mg/kg; Intraperitoneal LD50 (mouse): 200 mg/kg; Subcutaneous LD50 (mouse): 266 mg/kg;

Chronic Toxicological Thiamine (hydrochloride) - Investigated as a drug, mutagen, and natural product.

Effects: Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information.

Thiamine (hydrochloride) RTECS Number: XI7350000

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
67-03-8	Thiamine	n.a.	n.a.	n.a.	n.a.

Section 12. Ecological Information

12.1 Toxicity: Avoid release into the environment.
Runoff from fire control or dilution water may cause pollution.

12.2 Persistence and Degradability: No data available.

12.3 Bio accumulative Potential: No data available.

12.4 Mobility in Soil: No data available.

12.5 Results of PBT and vPvB: No data available.

12.6 Other adverse effects: No data available

Section 13. Disposal Considerations

13.1 Waste Disposal Method: Dispose in accordance with local, state, and federal regulations.

Section 14. Transport Information

14.1 LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Not dangerous goods.

DOT Hazard Class:

UN/NA Number:

14.1 LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name: Not dangerous goods.

UN Number:

Hazard Class:

14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Not dangerous goods.

Additional Transport Information: Transport in accordance with local, state, and federal regulations.

Section 15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
67-03-8	Thiamine	No	No	No
CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists		
67-03-8	Thiamine	CAA HAP, ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No		

Regulatory Information: This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)

Statement: No.1272/2008.

Section 16. Other Information

Additional Information About: No data available.

This Product:

Company Policy or Disclaimer:

This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their purposes.