



MATERIAL SAFETY DATA SHEET

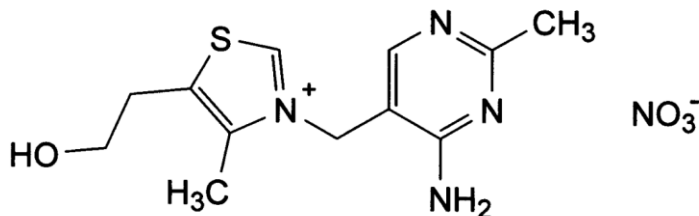
Thiamine Mononitrate

1. Product Identification and Use

Material name	Thiamine Mononitrate
Trade name	Vitamin B1
Company information	Manufacturer JIANGXI TIANXIN PHARMACEUTICAL CO.,LTD. Address: Le'anjiang Industrial Zone, Leping, Jiangxi, 333300 China Tel / Fax: +86-798-6702928
Use	Active pharmaceutical ingredient, nutritional ingredient, feed additive
Emergency telephone	+86-13958501873 Daniel Ting (丁文祥), Intl. Business Manager

2. Composition / Information on Ingredients

Chemical name	3-[(4-Amino-2-methylpyrimidin-5-yl)methyl]-5-(2-hydroxyethyl)-4-methylthiazolium nitrate
Synonyms	Thiamine Nitrate Vitamin B ₁ Mononitrate
CAS No.	532-43-4
Molecular formula	C ₁₂ H ₁₇ N ₅ O ₄ S
Molecular weight	327.36 g/mol
Constitution	



3. Hazards Identification

Potential Acute Health Effects	Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.
Potential Chronic Health Effects	Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.

4. First Aid Measures

Eye Contact	Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used.
Skin Contact	Wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.
Ingestion	Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

5. Fire Fighting Measures

Flammability	May be combustible at high temperature.
Products of Combustion	These products are carbon oxides (CO, CO ₂), nitrogen oxides (NO, NO ₂ ...).
Fire Fighting Media and Instructions	Small Fire: Use DRY chemical powder. Large Fire: Use water spray, fog or foam. Do not use water jet.

6. Accidental Release Measures

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill	Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

7. Handling and Storage

Precautions	Keep away from extreme heat and sources of ignition. Do not breathe dust.
Storage	In a non-metallic container, protected from light. Keep container dry. Keep container tightly closed. Keep in a cool, well-ventilated place.

8. Exposure Controls / Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

9. Physical and Chemical Properties

Physical state and appearance	White or almost white, crystalline powder or small, colorless crystals
Molecular Weight	327.36 g/mol
Melting Point	Decomposes (198°C or 388.4°F)
Solubility	Sparingly soluble in water, freely soluble in boiling water, slightly soluble in alcohol and in methanol.

10. Stability and Reactivity

Chemical stability	Stable under normal temperatures and pressures.
Incompatibility	Alkalies, oxidizing agents.
Conditions / Hazards to Avoid	Avoid dust cloud formation.
Corrosive Properties	Not corrosive.
Oxidizer Properties	Not an oxidizer.

11. Toxicological Information

Toxicity data	Mouse, Oral LD ₅₀ – 13.7 g/kg Rat, Oral LD ₅₀ – 18.5 g/kg
Acute Overexposure Effects	Contact with the eyes and skin may result in irritation. Prolonged or repeated skin contact may result in dermatitis. Inhalation of the dusts or powders may result in respiratory irritation. Ingestion may result in gastric disturbances.
Chronic Overexposure Effects	There are no known chronic effects associated with this material.


12. Ecological Information

Data not yet available.

13. Disposal Considerations

General	Spills should be contained and placed in suitable containers for disposal. This material is not regulated by RCRA or CERCLA. Wear appropriate respiratory protection and protective clothing and provide adequate ventilation during clean-up.
Waste Disposal	Incinerate in a licensed facility. Do not discharge into waterways or sewer systems.

14. Transport Information

DOT Classification	Not a DOT controlled material (USA).
DOT (Pictograms)	
Other	Not classified as hazardous under transport regulations (ADR / RID / ADNR / IMDG / GGVSee / ICAO / IATA)

15. Regulatory Information

Federal and State Regulations (USA)	TSCA 8(b) inventory: Thiamine mononitrate
Other Classifications	WHMIS (Canada): Not controlled under WHMIS DSCL (EEC): This product is not classified according to the EU regulations.

16. Other Information

Use	Active pharmaceutical ingredient, nutritional ingredient, feed additive.
-----	--

Last update: March 11, 2014

The information in this MSDS is based on current scientific knowledge. It should not be taken as expressing or implying any warranty concerning product characteristics.