



NEWAY SINOPHC TECH. LIMITED

ADD:RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.
Email:marketing01@newayphc.com; Phone:+86-021-50350029 <https://www.newayphc.com>

Safety Data Sheet (MSDS)

According to GB/T 16483 and GB/T 17519; Adapts to GHS, IMDG, IATA Standards

Product Name: Thiamine **CAS-No.:** 59-43-8 **Product Number:** TH-20260205 **Brand:** SIGALD **Revision Date:** 05 FEB 2026

SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifiers

- Synonyms: Vitamin B1; Thiamine hydrochloride; 3-[(4-Amino-2-methylpyrimidin-5-yl)methyl]-5-(2-hydroxyethyl)-4-methylthiazolium chloride hydrochloride

1.2 Supplier Details

- Company: NEWAY SINOPHC TECH. LIMITED
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- Telephone: +86-021-50350029
- Fax: +86-021-50350029

1.3 Emergency telephone: +86-021-50350029 (CHEMTREC)

1.4 Identified Uses & Uses Advised Against

- Identified Uses: Nutritional supplement; pharmaceutical raw material; food additive; feed additive
- Uses Advised Against: No unapproved uses

SECTION 2: Hazards Identification

2.1 **GHS Classification:** Not a hazardous substance or mixture (GHS 0 category) 2.2 **GHS Label Elements**

- Hazard Pictogram: None
- Signal Word: None
- Hazard Statements: None
- Precautionary Statements: None
- 2.3 **Physical and Chemical Hazards:** No physical or chemical hazards identified
- 2.4 **Health Hazards:** No acute or chronic health hazards; non-toxic via oral/dermal route; mild eye irritation may occur in sensitive individuals
- 2.5 **Environmental Hazards:** Environmentally friendly; fully biodegradable; no adverse effects on aquatic/terrestrial organisms
- 2.6 **Other Hazards:** No additional hazards identified

SECTION 3: Composition/Information on Ingredients

- **Substance / Mixture:** Pure substance
- **Active Component:** Thiamine (CAS:59-43-8) | Concentration: ≥98.0% | Classification: Non-hazardous

SECTION 4: First Aid Measures

4.1 First-Aid Measures

- Inhaled: Move to fresh air if discomfort occurs; no special treatment needed
- Skin Contact: Rinse skin with running water for 5 minutes; remove contaminated clothing



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- Eye Contact: Rinse eyes thoroughly with plenty of running water for 5-10 minutes; remove contact lenses if present; consult a doctor if irritation persists
 - Swallowed: Rinse mouth with water; no induced vomiting; consult a doctor only if gastrointestinal discomfort occurs
- 4.2 **Symptoms and Effects:** Mild eye irritation in sensitive individuals; no other toxic effects
- 4.3 **Medical Attention:** No specific treatment required; symptomatic treatment if needed
- 4.4 **Notes to Physician:** Inform physician of product composition if consultation is needed

SECTION 5: Firefighting Measures

5.1 **Extinguishing Media:** Water spray, foam, carbon dioxide (CO₂), dry powder (all suitable)

Special Hazards: Non-combustible; no hazardous combustion gases generated on heating

Firefighter Advice: Wear standard fire-fighting gear; no special protective equipment required

SECTION 6: Accidental Release Measures

6.1 **Personal Precautions:** Wear dust mask and gloves for large spills; ensure good ventilation

Environmental Precautions: No special measures; biodegradable, no environmental pollution

6.3 Clean Up Methods

- Small Spill: Sweep up with clean brush/spatula; transfer to sealed container for reuse
 - Large Spill: Contain with inert material; collect and transfer to sealed container; avoid entering drainage system
- 6.4 **Reference:** See Section 13 for disposal

SECTION 7: Handling and Storage

7.1 Safe Handling

- Operate in well-ventilated area; avoid dust generation
 - Avoid contact with strong oxidizing agents, strong alkalis
 - Hygiene: Wash hands after handling
- ### 7.2 Safe Storage
- Storage Conditions: Cool, dry, dark warehouse; sealed container; avoid direct sunlight/humidity; storage temperature ≤ 25°C
 - Incompatibilities: Strong oxidizing agents, strong alkalis (pH > 10)
 - Storage Class (TRGS 510): 13 (Non-Hazardous Solids)
 - Shelf Life: 24 months (unopened, under specified storage conditions)

SECTION 8: Exposure Controls/Personal Protection

8.1 **Control Parameters:** No occupational exposure limits (national/international)

8.2 Exposure Controls

- Engineering Controls: Basic ventilation; dust collection system for large-scale production
- Personal Protective Equipment (PPE)
 - Eye/Face Protection: Safety glasses for dust-handling
 - Skin Protection: Nitrile rubber gloves for prolonged contact
 - Respiratory Protection: Dust mask for large dust generation scenarios
- Environmental Exposure: No special controls required

SECTION 9: Physical and Chemical Properties



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- Physical State: Crystalline powder
- Color: White to off-white
- Odor: Odorless
- Melting Point: 248-250°C (decomposition)
- Boiling Point: N/A (decomposes before boiling)
- Flammability: Non-combustible
- Flash Point: N/A
- Autoignition Temperature: > 300°C
- pH Value (1% aq. solution, 25°C): 2.7-3.4
- Solubility: Soluble in water; slightly soluble in ethanol; insoluble in ether/benzene
- Density (25°C, solid): 1.47 g/cm³
- Particle Size: 80-120 mesh (standard grade)
- Explosive Properties: Non-explosive
- Oxidizing Properties: None

SECTION 10: Stability and Reactivity

10.1 **Chemical Stability:** Stable under recommended storage conditions ($\leq 25^{\circ}\text{C}$, dry, sealed)

10.2 **Hazardous Reactions:** No hazardous reactions under normal use/handling

10.3 **Conditions to Avoid:** High temperature ($>60^{\circ}\text{C}$), high humidity, strong oxidizing agents, strong alkalis

10.4 **Incompatible Materials:** Hydrogen peroxide, sodium hypochlorite, concentrated NaOH/KOH

10.5 **Decomposition Products:** No toxic decomposition products; decomposes to non-toxic organic compounds at high temperature

SECTION 11: Toxicological Information

11.1 Toxicological Effects

- Acute Toxicity: Oral (Rat, LD_{50}) > 5000 mg/kg; Dermal (Rabbit, LD_{50}) > 10000 mg/kg; Inhalation (Rat, LC_{50}) > 10 mg/m³ (4h)
- Skin Corrosion/Irritation: No irritation (Rabbit, 4h exposure)
- Eye Irritation: Mild reversible irritation (Rabbit, 24h exposure)
- Sensitization: No skin/respiratory sensitization
- Mutagenicity/Carcinogenicity/Reproductive Toxicity: No data available; not classified as carcinogenic by IARC/EPA/NTP
- Target Organ Toxicity: No target organ toxicity identified

SECTION 12: Ecological Information

12.1 **Toxicity:** Fish (Zebrafish, LC_{50}) > 1000 mg/L (96h); Daphnia (EC_{50}) > 500 mg/L (48h); Algae (EC_{50}) > 1000 mg/L (72h)

12.2 **Persistence and Degradability:** Fully biodegradable ($\text{BOD}_5/\text{COD} > 0.7$)

12.3 **Bioaccumulative Potential:** No bioaccumulation ($\log K_{ow} < 1$)

12.4 **Mobility in Soil:** Low mobility; binds to soil organic matter

12.5 **PBT/vPvB:** Not classified as PBT/vPvB

12.6 **Other Effects:** No adverse ecological impacts

SECTION 13: Disposal Considerations



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13.1 **Waste Treatment:** Dispose via licensed waste treatment facilities; comply with local/national/international regulations; can be treated by biological degradation

Packaging Waste: Rinse thoroughly; recycle as non-hazardous plastic/metal waste

SECTION 14: Transport Information

14.1 **UN Number:** ADR/RID/IMDG/IATA: -14.2 **UN Proper Shipping Name:** Non-dangerous goods (all regulations)

14.3 **Transport Hazard Class:** -14.4 **Packaging Group:** -14.5 **Environmental**

Hazards: No (non-marine pollutant) 14.6 **Special Precautions:** Avoid collision, moisture, direct sunlight; transport at $\leq 25^{\circ}\text{C}$ 14.7 **Incompatible Materials:** Avoid transport with strong oxidizing agents/alkalis

SECTION 15: Regulatory Information

15.1 National & International Regulations

- China: Hazardous Chemical Safety Management Regulation (Non-hazardous); Food Safety Law; Feed Additive Management Regulation
 - International: GHS (Rev.9) Non-hazardous; REACH (EU) - Not in SVHC List; TSCA (US) - Listed on Inventory; FCC/USP Compliant
- 15.2 **Other:** Comply with local food/feed/pharmaceutical additive regulations

SECTION 16: Other Information

- This MSDS is based on current scientific knowledge and complies with GB/T 16483, GB/T 17519, GHS standards
- Supplier is not liable for damage caused by improper use/non-compliance with safety precautions
- For further technical information, contact the supplier's technical department

纳维盈医化科技
NEWAY SINOPHC TECH