



Alpha Chemika



ISO 9001 QUALITY SYSTEM CERTIFIED ORGANIZATION

MATERIAL SAFETY DATA SHEET

MSDS

Savgan Heights ; 102 .B Wing ; R.T.O. Lane ,Andheri (West) Mumbai - 400053 , INDIA

Section 1 - Chemical Product and Company Identification

Product Name : VITAMIN B₁

Synonyms: 3-[(4-Amino-2-methyl-5-pyrimidinyl)methyl]-5-(2-hydroxyethyl)-4-methylthiazolium chloride monohydrochloride; Thiamine hydrochloride

CAS No.: 67-03-8

Molecular Weight: 337.27

Chemical Formula: C₁₂H₁₈N₄OSCl₂

Section 2 - Composition, Information on Ingredients

| Ingredient | CAS No | Percent | Hazardous |
|------------------------|---------|-----------|-----------|
| Thiamine Hydrochloride | 67-03-8 | 98 - 100% | Yes |

Section 3 - Hazardous Identification

Emergency Overview

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 2 - Moderate

Flammability Rating: 1 - Slight

Reactivity Rating: 1 - Slight

Contact Rating: 1 - Slight

Lab Protective Equip: GOGGLES; LAB COAT; PROPER GLOVES

Storage Color Code: Green (General Storage)

Inhalation:

No adverse health effects expected from inhalation.

Ingestion:

Low toxicity. Excessive oral doses may cause "thiamine shock," which may include weakness, burning sensation, nausea, gastrointestinal hemorrhage, pulmonary edema, collapse, and death.

Skin Contact:

No adverse effects expected.

Eye Contact:

No adverse effects expected.

Chronic Exposure:

Repeated ingestion of large doses may cause drug fever and immediate hypersensitivity.

Aggravation of Pre-existing Conditions:

No information found.

Section 4 - First Aid Measures

Inhalation:

Not expected to require first aid measures.

Ingestion:

Give several glasses of water to drink to dilute. If large amounts were swallowed, get medical advice.

Skin Contact:

Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact:

Wash thoroughly with running water. Get medical advice if irritation develops.

Section 5 - Fire Fighting Measures

Fire:

As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

Explosion:

Not considered to be an explosion hazard.

Fire Extinguishing Media:

Water spray, dry chemical, alcohol foam, or carbon dioxide.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Section 6 - Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

Section 7 - Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

Section 8 - Exposure Controls, Personal Protection

Airborne Exposure Limits:

None established.

Ventilation System:

In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

Personal Respirators (NIOSH Approved):

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear protective gloves and clean body-covering clothing.

Eye Protection:

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

Section 9 - Physical and Chemical Properties

Appearance:

White, granular powder.

Odor:

Yeast/nut-like odor.

Solubility:

100 g/100 ml water

Density:

No information found.

pH:

No information found.

% Volatiles by volume @ 21C (70F):

0

Boiling Point:

Not applicable.

Melting Point:

260C (500F)

Vapor Density (Air=1):

No information found.

Vapor Pressure (mm Hg):

No information found.

Evaporation Rate (BuAc=1):

No information found.

Section 10 - Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage. Forms a hydrate on exposure to air.

Hazardous Decomposition Products:

May emit oxides of carbon, oxides of sulfur, oxides of nitrogen, and hydrogen chloride gas when heated to decomposition.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Alkalis, alkaline drugs, oxidizing and reducing agents.

Conditions to Avoid:

Heat, moisture, incompatibles.

Section 11 - Toxicological Information

Oral rat LD50: 3710 mg/kg

| -----\Cancer Lists\----- | | | | |
|----------------------------------|-------|-------------|---------------|--|
| ---NTP Carcinogen--- | | | | |
| Ingredient | Known | Anticipated | IARC Category | |
| Thiamine Hydrochloride (67-03-8) | No | No | None | |

Section 12 - Ecological Information

Environmental Fate: No information found.

Environmental Toxicity: No information found.

Section 13 - Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Section 14 - Transport Information

Not Regulated

Section 15 - Regulatory Information

| -----\Chemical Inventory Status - Part 1\----- | | | | |
|--|------|-----|-------|-----------|
| Ingredient | TSCA | EC | Japan | Australia |
| Thiamine Hydrochloride (67-03-8) | Yes | Yes | Yes | Yes |

| -----\Chemical Inventory Status - Part 2\----- | | | | |
|--|-------|-----|------|-------|
| --Canada-- | | | | |
| Ingredient | Korea | DSL | NDSL | Phil. |
| Thiamine Hydrochloride (67-03-8) | Yes | Yes | No | Yes |

| -----\Federal, State & International Regulations - Part 1\----- | | | | |
|---|------------|-----|--------------------|----------------|
| Ingredient | -SARA 302- | | -----SARA 313----- | |
| | RQ | TPQ | List | Chemical Catg. |
| Thiamine Hydrochloride (67-03-8) | No | No | No | No |

| -----\Federal, State & International Regulations - Part 2\----- | | | | |
|---|--------|--------|--------|----|
| Ingredient | -RCRA- | | -TSCA- | |
| | CERCLA | 261.33 | 8(d) | |
| Thiamine Hydrochloride (67-03-8) | No | No | No | No |

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
SARA 311/312: Acute: No Chronic: No Fire: No Pressure: No
Reactivity: No (Pure / Solid)

Section 16 - Additional Information

NFPA Ratings: Health: **0** Flammability: **0** Reactivity: **0**

Label Hazard Warning:

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

Label Precautions:

None.

Label First Aid:

Not applicable.

Product Use:

Laboratory Reagent.

Revision Information:

No Changes.