

# Safety Data Sheet

According to Regulation (EC) No 1907/2006, Annex II,  
Amended by COMMISSION REGULATION( EU) 2015/830,  
According to REGULATION(EC) No 1272/2008

## Thiamine Hydrochloride

Version 1.0

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### Section 1 Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Identification on the label/Trade name: Thiamine hydrochloride  
 Addition identification: Not available  
 Identification of the product: CAS# 67-03-8 EC# 200-641-8  
 Index Number: Not available  
 REACH registration No: Not available

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

1.2.1 Identified uses: Food/Feed additives.  
 1.2.2 Uses advised against: No uses advised against are identified.

#### 1.3 Details of the supplier of the safety data sheet

supplier(only representative): -  
 supplier(Manufacturer): Jiangsu Brother Vitamins Co., Ltd.  
 Address: South of Wei er Road, Southern Area Ocean Economic Development Zone, Dafeng District, Yancheng City, Jiangsu Province  
 Contact person(E-mail): Stanley@brother.com.cn  
 Telephone: 0086-573-87015331  
 Fax: 0086-573-87015333

#### 1.4 Emergency telephone Number

0086-573-87536768  
 Available outside office hours? Yes  No

### Section 2 Hazards Identification

#### 2.1 Classification of the substance or mixture:

2.2.1 Classification:  
 The substance is classified as following according to REGULATION (EC) No 1272/2008

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement
Eye Irrit.2	H319

For full text of H- phrases: see section 2.2

#### 2.2 Label elements

Hazard Pictograms:



Signal Word(s): Warning  
 Hazard Statement: H319: Causes serious eye irritation  
 Precautionary: P264: Wash hands thoroughly after handling.  
 P280: Wear protective gloves/protective clothing/eye protection/face  
 P305+P351+P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337+P313: If eye irritation persists: Get medical advice/attention.

### 2.3 Other Hazards:

The substance is not PRT/VPvB.

## Section 3 Composition/information on ingredients

Substance/Mixture: Substance

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
Thiamine Hydrochloride	N/A	1967/3/8	200-641-8	98.5%-101.0%

## Section 4 First aid measures

### 4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

#### 4.1.1 In case of inhalation

Move to fresh air. Consult a physician after significant exposure.

#### 4.1.2 In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water.

#### 4.1.3 In case of eyes contact:

Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing.

#### 4.1.4 In case of ingestion:

Clean mouth with water and drink afterwards plenty of water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person.

### 4.2 Most important symptoms and effects, both acute and delayed:

Causes serious eye irritation.

### 4.3 Indication of any immediate medical attention and special treatment needed:

If skin irritation or rash occurs, get medical advice/attention.

## Section 5 Firefighting measures

### 5.1 Extinguishing media:

Suitable extinguishing media: Water, Foam

Unsuitable extinguishing media: Not available.

### 5.2 Special hazards arising from the substance or mixture

Formation of corrosive gases by combustion. In case of fire, the following can be released: Hydrogen chloride gas, Nitrogen oxides (Nox), Sulphur oxides.

### 5.3 Advice for firefighters:

Self-contained breathing apparatus with full-face mask and full protective clothing (standard wear).

## Section 6 Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel: Use personal protective equipment. Avoid dust formation.

6.1.2 For emergency responders: Wear an appropriate NIOSH/MSHA approved respirator if dust is generated.

### 6.2 Environmental Precautions:

Try to prevent the material from entering drains or water courses.

### 6.3 Methods and material for containment and cleaning up:

Pick up and arrange disposal without creating dust.

### 6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

## Section 7 Handling and storage

### 7.1 Precautions for safe handling:

7.1.1 Protective measures: Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed. Take precautionary measures against static discharges.

7.1.2 Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### 7.2 Condition for safe storage, including

To maintain product quality, do not store in store in heat or direct sunlight. Keep containers tightly closed and dry.

any incompatibilities: sunlght. Keep container tightly closed and dry.

7.3 Specific end uses(s): Not applicable.

## Section 8 Exposure Controls/ Personal Protection

### 8.1 Control parameters:

8.1.1 Occupational exposure limits: Not available.

8.1.2 Additional exposure limits under the condition of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Values:

Workers-Hazard via inhalation route	Systemic effects-Long term exposure	DNEL=11 mg/m <sup>3</sup>
Workers-Hazard via dermal route	Systemic effects-Long term exposure	DNEL=3.3 mg/m <sup>3</sup> bw/day
General population-Hazard via inhalation route	Systemic effects-Long term exposure	DNEL=2.8 mg/m <sup>3</sup>
General population-Hazard via dermal route	Systemic effects-Long term exposure	DNEL=1.6 mg/m <sup>3</sup> bw/day
General population-Hazard via oral route	Systemic effects-Long term exposure	DNEL=1.6 mg/m <sup>3</sup> bw/day
Hazard for aquatic organisms	Freshwater	DNEL=0.1 mg/m <sup>3</sup>
Hazard for aquatic organisms	Marine water	DNEL=0.01 mg/m <sup>3</sup>
Hazard for aquatic organisms	STP	DNEL=2.17 mg/m <sup>3</sup>
Hazard for aquatic organisms	Sediment(freshwater)	DNEL=0.363 mg/m <sup>3</sup> bw/day
Hazard for aquatic organisms	Sediment(marine water)	DNEL=0.036mg/m <sup>3</sup> bw/day
Hazard for terrestrial organisms	Soil	DNEL=0.014 mg/m <sup>3</sup> bw/day

### 8.2 Exposure controls:

8.2.1 Appropriate engineering controls: Handles in accordance with good industrial hygiene and safety practice.Wash hands before breaks and at the end of workday.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection: Safety glasses with side-shields.

Hand protection: Consider the hazard characteristics of this product and any special workplace conditions when selecting the appropriate type of protective gloves. Glove material: for example nitrile rubber.

Body protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection: No personal respiratory protective equipment normally required. In case of high dust concentration use a dust mask applicable to local conditions.

Thermal hazards: Wear suitable protective clothing to prevent heat.

## Section 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical

Appearance: Crystalline powder or crystals(EP)

Colour: White or almost white. or colorless

Odour: Usually having a slight, characteristic odor(USP)

Odour threshold: Not available

pH: Not available

Melting point/range(°C): 210—250°C

Boiling point/range(°C): Not available

Flash point/range(°C): Not available

Evaporation rate: Not available

Flammability limit-lower(%): Not available

Flammability(solid, gas): Not available

Ignition temperature(°C): Not available

Upper/lower explosive limits: Not available

Vapour pressure(25°C): 0Pa

Vapour density: Not available

Density: 1.414 g/cm<sup>3</sup>(24.2°C)

Bulk density(kg/m3):	Not available
Water solubility(g/l):	50—55°C(w/w)(20°C)
n-Octanol/Water(log Po/w)	< -3.04 ( 22.5°C)
Auto-ignition temperature:	400°C
Decomposition temperature:	Not available
Viscosity, dynamic(mPa.s)	Not available
Explosive properties:	Non-explosive
Oxidising properties:	Non oxidizing
Molecular Formula:	C <sub>12</sub> H <sub>18</sub> Cl <sub>12</sub> N <sub>4</sub> OS
Molecular Weight:	337.27

## 9.2 Other information

Fat solubility (solvent-oil to be	Not available
Surface tension:	72.6 mNm(20°C)
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available

## Section 10 Stability and reactivity

<b>10.1 Reactivity:</b>	The substance is stable under normal storage and handling conditions.
<b>10.2 Chemical stability:</b>	Stable at room temperature in closed containers under normal storage and handling conditions.
<b>10.3 Possibility of hazardous reactions:</b>	Dust may form explosive mixture in air.
<b>10.4 Conditions to avoid:</b>	Incompatible materials. Heat.
<b>10.5 Incompatible materials:</b>	Bases, Strong oxidizing agents.
<b>10.6 Hazardous decomposition</b>	Hydrogen chloride gas, Nitrogen oxides(NOx), Sulphur oxides.

## Section 11 Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity	
LD50(Oral, Rat):	12340 mg/kg bw
LD50(Dermal, Rabbit):	Not available
LC50(Inhalation, Rat):	Not available
Skin corrosion/irritation:	Not classified
Serious eye damage/irritation:	Causes serious eye irritation.
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenic:	Not classified
Reproductive toxicity:	Not classified
STOT-single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard	Not classified

## Section 12 Ecological information

### 12.1 Toxicity:

Acute(short-term) toxicity:	
LC50(96h, Fish):	>100mg/L
EC50(48h, Crustacea):	>100mg/L
EC50(72h, Algae/aquatic plants):	>100mg/L
Chronic (long-term) toxicity:	
NOEC(Fish):	Not available
NOEC(Crustacea):	Not available
NOEC(Algae/aquatic plants)	100mg/L

**12.2 Persistence and degradability** Readily biodegradable

**12.3 Bioaccumulative potential** Not available

**12.4 Mobility in soil** Not available

**12.5 Results of pbt and vPvb**

The substance is not pbt/ vPvB

**12.6 Other adverse effects**

Not available

**Section 13 Disposal considerations****13.1 Waste treatment methods**

Dispose of in accordance with all applicable local and national regulations. Use recovery/recycling where feasible, otherwise incineration is the recommended method of disposal. Empty containers may contain hazardous residues Do not cut, puncture or weld on or near to the container. Labels should not be removed from containers until they have been cleaned. Contaminated containers must not be treated as household waste Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers.

**Section 14 Transport information**

	Land transport (ADR/RID)	Inland waterways (AND)	Sea transport (IMDG)	Air transport (ICAO/ATA)
UN number	Not regulated	Not regulated	Not regulated	Not regulated
UN Proper shipping name	Not regulated	Not regulated	Not regulated	Not regulated
Transport hazard class (es)	Not regulated	Not regulated	Not regulated	Not regulated
Packing group	Not regulated	Not regulated	Not regulated	Not regulated
Environmental hazards	No	No	No	No
Special precautions for user	See section 2.2	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of Marpol and the IBC Code	Not regulated	Not regulated	Not regulated	Not regulated

**Section 15 Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Relevant information regarding

Not applicable

Relevant information regarding restriction

Not applicable

Other EU regulations

Employment restrictions concerning young person must be observed.  
For use only by technically qualified individuals

Other National regulations

Not applicable

**15.2 Chemical safety assessment**

Yes

No

**Section 16 Other information****16.1 Indication of changes**

Version 1.0 Amended by(EU)2015/830

**16.2 Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation for rail International transportation of Dangerous goods

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG. Code international maritime dangerous goods code

ICAO: International Civil Aviation Organization

IATA: International Air Transport Association

LC50: median lethal concentration

EC50: The effective concentration of substance that causes 50%of the maximum response

NOEC: No Observed Effect concentration

DNEL. derived no-effect level

PNEC: predicted no-effect concentration

**16.3 Key literature references and sources for data**

ECHA Registered substances data

**16.4 Classification and procedure used to derive the classification for mixtures according to Regulation(EC) 1272/2008[CLP]**

Classification according to Regulation(EC)No. 1272/2008	Classification procedure
Eye Irrit. 2	On basis of test data

**16.5 Relevant H-statements(number and full text)**

H 319: Causes serious eye irritation.

**16.6 Training instructions**

Not applicable.

**16.7 Further information**

This information is based upon the present state of our knowledge. This SDs has been compiled and is solely intended for this product.

**16. 8 Notice to reader**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.