

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.07.2013

Revision: 20.07.2012

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name

Thiamine hydrochloride

Stock number:

A19560, L08137

CAS Number:

67-03-8

EC number:

200-641-8

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

Identified use:

SU24 Scientific research and development

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
 A Johnson Matthey Company
 Zeppelinstr. 7b
 76185 Karlsruhe / Germany
 Tel: +49 (0) 721 84007 280
 Fax: +49 (0) 721 84007 300
 Email: tech@alfa.com
 www.alfa.com
 Product safety Tel + +049 (0) 7275 988687-0
 Carechem 24: +44 (0) 1235 239 670 (Multi-language emergency number)
 Poison Information Center Mainz
 www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240

Informing department:

1.4 Emergency telephone number:

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

Information concerning particular hazards for human and environment:

Not applicable

Other hazards that do not result in classification

No information known.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

Signal word

Hazard statements

The substance is classified and labelled according to the CLP regulation.

GHS07

Warning

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P321 Specific treatment (see on this label).

P405

Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

SECTION 3: Composition/information on ingredients**3.1 Substances**

CAS# Designation:

67-03-8 Thiamine hydrochloride

Identification number(s):

200-641-8

EC number:

SECTION 4: First aid measures**4.1 Description of first aid measures**

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact

Seek immediate medical advice.

Instantly wash with water and soap and rinse thoroughly.

After eye contact

Seek immediate medical advice.

Rinse opened eye for several minutes under running water. Then consult doctor.

After swallowing

Seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing agents

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.**5.2 Special hazards arising from the substance or mixture**

If this product is involved in a fire, the following can be released:

Carbon monoxide and carbon dioxide

Sulphur oxides (SO_x)Nitrogen oxides (NO_x)

Hydrogen chloride (HCl)

5.3 Advice for firefighters

Protective equipment:

Wear self-contained breathing apparatus.

Wear full protective suit.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.
 Ensure adequate ventilation

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6.2 Environmental precautions:

Do not allow material to be released to the environment without proper governmental permits.
Do not allow product to reach sewage system or water bodies.
Do not allow to enter the ground/soil.

6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.
No special measures required.

Prevention of secondary hazards:

See Section 7 for information on safe handling
See section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

6.4 Reference to other sections**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Handle under dry protective gas.
Keep containers tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires:

No information known.

7.2 Conditions for safe storage, including any incompatibilities**Storage Requirements to be met by storerooms and containers:**

No special requirements.

Information about storage in one common storage facility:

Store in the dark.
Store away from water.
Store away from oxidizing agents.

Further information about storage conditions:

Store under dry inert gas.
This product is hygroscopic.
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Protect from humidity and keep away from water.
Protect from the effects of light.

7.3 Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection**Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

8.1 Control parameters**Components with critical values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
No data

Additional information:**8.2 Exposure controls****Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures should be adhered to in handling the chemicals.
Keep away from foodstuffs, beverages and food.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
Maintain an ergonomically appropriate working environment.
Use breathing protection with high concentrations.
Check protective gloves prior to each use for their proper condition.
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Breathing equipment:**Protection of hands:****Material of gloves****Penetration time of glove material****Eye protection:**

Impervious gloves

Not determined

Safety glasses

Face protection

Body protection:

Protective work clothing.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****General Information****Appearance:**

Form: Crystalline powder
Colour: White to pale yellow
Smell: Not determined
Odour threshold: Not determined.

pH-value: Not applicable.

Change in condition

Melting point/Melting range: ca 250 °C (dec)
Boiling point/Boiling range: Not determined
Sublimation temperature / start: Not determined
Inflammability (solid, gaseous) Not determined.
Ignition temperature: Not determined
Decomposition temperature: Not determined
Self-inflammability: Not determined.

Critical values for explosion:

Lower: Not determined
Upper: Not determined

Steam pressure:

Not applicable.

Density Not determined.

Relative density Not determined.

Vapour density Not applicable.

Evaporation rate Not applicable.

Solubility in / Miscibility with

Water: Not determined

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

dynamic: Not applicable.

kinematic: Not applicable.

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9.2 Other information	No further relevant information available.
SECTION 10: Stability and reactivity	
10.1 Reactivity	No information known.
10.2 Chemical stability	Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided:	No decomposition if used and stored according to specifications.
10.3 Possibility of hazardous reactions	Reacts with strong oxidizing agents
10.5 Incompatible materials:	Water/moisture Oxidizing agents Light
10.6 Hazardous decomposition products:	Carbon monoxide and carbon dioxide Sulphur oxides (SO _x) Nitrogen oxides (NO _x) Hydrogen chloride (HCl)
SECTION 11: Toxicological information	
11.1 Information on toxicological effects	
Acute toxicity:	The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product.
LD/LC50 values that are relevant for classification:	
Oral LD50	3710 mg/kg (rat)
Skin irritation or corrosion:	Causes skin irritation.
Eye irritation or corrosion:	Causes serious eye irritation.
Sensitization:	No sensitizing effect known.
Germ cell mutagenicity:	No effects known.
Carcinogenicity:	No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
Reproductive toxicity:	No effects known.
Specific target organ system toxicity - repeated exposure:	No effects known.
Specific target organ system toxicity - single exposure:	May cause respiratory irritation.
Aspiration hazard:	No effects known.
Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
SECTION 12: Ecological information	
12.1 Toxicity	
Aquatic toxicity:	No further relevant information available.
12.2 Persistence and degradability	No further relevant information available.
12.3 Bioaccumulative potential	No further relevant information available.
12.4 Mobility in soil	No further relevant information available.
Additional ecological information:	
General notes:	Do not allow material to be released to the environment without proper governmental permits. Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Avoid transfer into the environment.
12.5 Results of PBT and vPvB assessment	
PBT:	Not applicable.
vPvB:	Not applicable.
12.6 Other adverse effects	No further relevant information available.
SECTION 13: Disposal considerations	
13.1 Waste treatment methods	
Recommendation	Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.
Uncleaned packagings:	
Recommendation:	Disposal must be made according to official regulations.
SECTION 14: Transport information	
UN-Number	
ADR, ADN, IMDG, IATA	Not applicable
14.2 UN proper shipping name	
ADR, ADN, IMDG, IATA	Not applicable
14.3 Transport hazard class(es)	
ADR, ADN, IMDG, IATA	
Class	Not applicable
Packing group	
ADR, IMDG, IATA	Not applicable
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user	Not applicable.
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
UN "Model Regulation":	-
SECTION 15: Regulatory information	
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	
Australian Inventory of Chemical Substances	Substance is listed.
Standard for the Uniform Scheduling of Drugs and Poisons	Substance is not listed.
National regulations	
Information about limitation of use:	Employment restrictions concerning young persons must be observed. For use only by technically qualified individuals.
Water hazard class:	Water hazard class 1 (Self-assessment): slightly hazardous for water.

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Other regulations, limitations and prohibitive regulations

Although this chemical may sometimes be used as a food or drug or cosmetic, our products are not approved or suitable for such use or for human consumption.

ELINCS (European List of Notified Chemical Substances)

Substance is not listed.

Substances of very high concern (SVHC) according to REACH, Article 57

Substance is not listed.

REACH - Pre-registered substances

Substance is listed.

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement 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 Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing data specification sheet: Health, Safety and Environmental Department.**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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