



黑龙江成福食品集团有限公司

Heilongjiang Chengfu Food Group Co., Ltd.

ADD: ECONOMIC DEVELOPMENT ZONE, ZHAODONG CITY, HEILONGJIANG PROVINCE, CHINA FAX: +86-455-7746669

SAFETY DATA SHEET FOR L-THREONINE

26th.Jun.2025

1. IDENTIFICATION OF THE SUBSTANCE PREPARATION AND OF THE COMPANY UNDERTAKING

Product information:

Trade name: L-Threonine

Company: HeiLongJiang ChengFu Food Group Co., ltd

Tel No. +86-455-7747300 Fax No. +86-455-7747433

Use of the Substance Feed Additive

2. HAZARDS IDENTIFICATION

Additional safety information for humans and the environment

Not applicable.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Name: L-Threonine

Formula: C₄H₉NO₃

CAS-NO. 72-19-5

EC-NO. 200-774-1

4. FIRST AID MEASURES

Eye contact:

Possible discomfort is due to foreign substance effect.

Rinse thoroughly with plenty of water keeping eyelid open.

In case of persistent discomfort: Consult an ophthalmologist.

Skin contact:

No hazards which require special first aid measures.

Inhalation:

In case product dust is released: Possible discomfort: cough, sneezing ; Move victims into fresh air.

Ingestion:

Have the mouth rinsed with water.

After absorbing large amounts of substance

Consult a physician.

Notes to physician

After absorbing large amounts of substance:

Acceleration of gastrointestinal passage

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water spray, Carbon dioxide, dry chemical powder or foam

Extinguishing media which must not be used for safety reasons: quenching powder, carbon dioxide (CO₂)

Specific hazards during fire fighting:



In the case of fire, the following hazardous smoke fumes may be produced: carbon monoxide, carbon dioxide, nitric oxides, hydrocyanic acid. In the event of fire and/or explosion do not breathe fumes.

Special protective equipment for fire-fighters: In the event of fire, wear self-contained breathing apparatus.

Further information:

Contaminated fire-extinguishing water must be disposed off in accordance with the regulations issued by the appropriate local authorities.

Fire residues must be disposed off in accordance with the regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear personal protective equipment. Keep unauthorized people away.

Environmental precautions:

Do not allow the product into the following compartments: Groundwater

Methods for cleaning up

Absorb mechanically avoiding production of dust.

7. HANDLING AND STORAGE

Handling:

Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes.

Storage:

Keep in a dry, cool place. Avoid light effect. Keep container tightly closed and dry.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Engineering measures

Ensure suitable suction/aeration at the work place and with operational machinery.

Earthing of equipment.

Take precautionary measures against static discharges.

Personal protective equipment

Respiratory protection

If dust occurs: dust mask with P1 particle filter

Hand protection

Glove material Natural rubber

Material thickness 0,5 mm

Break through time 8h

Method DIN EN 374

Glove material Nitrile

Material thickness 0,11 mm

Break through time 8h

Method DIN EN 374

Eye protection

safety glasses

Skin and body protection

No special protective equipment required.

Hygiene measures

Wash face and/or hands before break and end of work.

Cleanse and apply cream to skin after work.

Protective measures



Handle in accordance with good industrial hygiene and safety practices.

If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form :powder

Colour: white until light gray

Odour :almost odourless distinct

Safety data

PH 5 - 6 (50 g/l) (20 °C)

Water

Melting point/range 253 - 257 °C

Decomposition

Boiling point/range not applicable

Sublimation point 200 °C

Ignition temperature 370 °C

Method: VDI Guideline 2263 sheet 1

(BAM-furnace)

for dust whirled up

glow temperature > 400 °C

Method: VDI 2263

Auto inflammability 156 °C

Method: VDI 2263

(in dm³ wire basket (IMDG code))

Explosiveness The product is susceptible to dust explosion.

Lower explosion limit

dust: 60 g/m³

Method: VDI3673

Minimum ignition energy 100 - 300 mJ (25 °C)

Method: VDI Guideline 2263 sheet 1

mean grain size: 50 µm

Normal combustibility

maximum absolute explosive 9,6 bar

pressure (with 1000 g/m³)

Vapour pressure not applicable

Density not applicable

Bulk density 585 - 715 kg/m³

Water solubility 90 g/l (20 °C)

(literature)

85,7 g/l (20 °C)

Method: EEC method 92169/EEC, A 6

Partition coefficient (n-octanol/water) log Pow: -2,94

Method: (measured)

Burning number BZ 5 - burns out with flames or shower of sparks.

Method: Combustibility test in accordance with VDI 2263



10. STABILITY AND REACTIVITY

Hazardous decomposition products :not known

decomposition products when exposed to heat flammable smouldering gases

Thermal decomposition 253 °C

TG (thermal gravimetric analysis)

Hazardous reactions Avoid dust formation.

Stable under normal temperatures and pressures.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity LD50 , Rat: > 2150 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity LC0 Rat(male1female): > 5.15 mg/l/4 h

Method: OECD Test Guideline 403 limit test (maximum concentration attainable in experiments) - No deaths occurred

Skin irritation Rabbit not irritating

Method: OECD Test Guideline 404

Eye irritation Rabbit: not irritating

Method: OECD Test Guideline 405

Sensitization Magnusson & Kligman guinea pig: not sensitizing to the skin

Method: OECD Test Guideline 406

Repeated dose toxicity Oral Rat(male1female)

Testing period: 28 d

Subsequent observation period: 42 day

NOAEL: > 1000 mg/kg

target organ/effect: no pathological changes

Method: OECD 407

Genotoxicity in vitro Chromosome aberration test in vitro human lymphocytes 625 - 5000ug/ml
negative

Metabolic activation: with or without

Method: OECD TG 473

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability **Exposure time:** 16 day

Result: 91 % Readily biodegradable.

Method: literature

Behaviour in environmental compartments

Ecotoxicity effects

Toxicity to daphnia EC50 static test Daphnia magna: > 1000 mg/l / 48 h

Method: OECD TG 202

EC50 static test Daphnia magna: > 1000 mg/l 124 h

Method: OECD TG 202

Toxicity to algae EC50 static test scenedesmus subspicatus: > 1000 mg/l / 72 h

Toxicity to bacteria EC 80 nitrobacteria: 119 mg/l / 69 h

Method: literature

Toxicity in terrestrial plants EC 40 Hordeum spec.: ca. 119 mg/l 1 144 h

Method: literature



13. DISPOSAL CONSIDERATIONS

Product

Disposal according to local authority regulations. Offer rinsed packaging material to local recycling facilities.

Waste Key Number

No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer., The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 20001532IEC) in cooperation with the disposal firm I producing firm I official authority.

14. TRANSPORT INFORMATION

Transport/further information

Transport information: not regulated by IMO/IMDG

IMDG: Non-dangerous goods

Not classified as dangerous in the meaning of transport regulations.

Not dangerous according to transport regulations.

UN number: --

UN proper shipping name: --

Transport hazard class(es): --

15. REGULATORY INFORMATION

Labeling according to EC Directives

Other data: On the basis of our data the product is not a hazardous substance as defined by the Chemicals Act or Hazardous Substance Ordinance in the currently valid versions.

16. OTHER INFORMATION

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



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