

Safety Data Sheet

Section 1: Identification

Product Name: L-Threonine

Recommended Use: For further manufacturing of feed

Synonyms: N/A

Company Identification:

Origination, LLC
1802 Woodale Drive, Suite 200
Woodbury, MN 55125

For information, call: 1-800-625-6079

Emergency Number: 1-800-625-6079

For CHEMTREC assistance, call: 1-800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

Section 2: Hazard(s) Identification

Classification of the substance or mixture

Not a hazardous substance or mixture.

GHS Label elements, including precautionary statements

Not a hazardous substance or mixture

Hazards not otherwise classified (HNOC) or not covered by GHS

None

Section 3: Composition / Information on Ingredients

Composition: L-Threonine 98.5%

Chemical Family: Amino Acid (Essential)

Formula: C₄H₉NO₃

Molecular Weight: 119.12

Structure Formula: CH₃ - CH (OH) CH - (NH₂) COOH

CAS No: 72-19-5

EC No: 200-774-1

Section 4: First Aid Measures

First aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

First-aid measures after skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation: May cause respiratory irritation.

Symptoms/injuries after eye contact: Causes eye irritation.

Immediate medical attention and special treatment needed: No additional information available.

Note to physician: None.

Section 5: Fire Fighting Measures

Extinguishing Media: Water spray, alcohol resistant foam, dry chemical or carbon dioxide

Special Hazards arising from substance or mixture: Carbon oxides, nitrogen oxides NO_x

Special Fire Fighting Procedure: Should wear protective clothing and respiratory protection to protect from fumes NO_x

Unusual Fire and Explosion Hazard: Not a fire hazard

Section 6: Accidental Release Measures

ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapors, mist or gas. For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

Section 7: Handling and Storage

HANDLING AND STORAGE

Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Section 8: Exposure Controls, Personal Protection

Control parameters**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

Exposure controls**Appropriate engineering controls**

General industrial hygiene practice.

Personal protective equipment**Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

Section 9: Physical and Chemical Properties

Appearance and Odor: White or pale brownish powder, odorless, having characteristic taste.

pH: 5-6 at 59.6 g/l at 25 °C (77 °F)

Melting point/freezing point: Melting point/range: 256 °C (493 °F)

Solubility in Water at 30° C: 110 g/L

Other safety information: no data available

Section 10: Stability and Reactivity

Stability: Stable if stored in dry condition in sealed or closed containers.

Condition to Avoid: No data available

Incompatible materials: Strong oxidizing agents

Hazardous Decomposition Product: No data available.

Section 11: Toxicological Information

TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

no data available

LD50 Intraperitoneal - rat - 3,098 mg/kg

Remarks: Behavioral: Muscle contraction or spasticity. Lungs, Thorax, or Respiration: Dyspnea. Nutritional and Gross Metabolic: Changes in: Body temperature decrease.

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

RTECS: XO8590000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological Information

Toxicity: No data available

Degradability: No data available

Bio accumulation: No data available

Section 13: Disposal Considerations (non-mandatory)

Waste treatment methods Product: Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging: Dispose of any unused product.

Section 14: Transport Information

DOT: Not regulated

TDG: Not regulated

NOM: Not regulated

IMDG: Not regulated

IATA: Not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

Section 15: Regulatory Information

Federal Regulations**US. EPA EPCRA SARA Title III****SARA HAZARD DESIGNATION SECTIONS 311/312 (40 CFR 370)**

Fire Hazard	no
Reactivity Hazard	no
Sudden Release of Pressure Hazard	no
Acute Health Hazard	no
Chronic Health Hazard	no

L-Threonine



Section 302 Emergency Planning Extremely Hazardous Substance Threshold Planning Quantity (40 CFR 355): No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355): This material does not contain any components with a SARA 302 RQ.

Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355): This material does not contain any components with a section 304 EHS RQ.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

This material does not contain any components with a CERCLA RQ.

State Regulations: US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

Section 16: Additional Information

Prepared by: Origination, LLC

Prepared: April 8, 2021

Disclaimer:

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Origination be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Origination has been advised of the possibility of such damages.