



Cambridge Isotope Laboratories, Inc.
3 Highwood Drive
Tewksbury, MA 01876

Number:
Issue Date

ULM-8800
03/20/15

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MATERIAL SAFETY DATA SHEET

1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description L-THREONINE UNLABELED

Cambridge Isotope Laboratories, Inc.
50 Frontage Rd
ANDOVER, MA 01810
USA

E-mail cilsales@isotope.com
Web Site www.isotope.com

Phone Numbers

Emergency Contact Chemtrec
Emergency Phone 1-800-424-9300 (24 hours)

Customer Service 1-800-322-1174 (8:30-5:30 EST)
Phone
Transportation 1-202-483-7616 (24 hours)

2 HAZARDS IDENTIFICATION

OSHA Hazards

No known OSHA hazards

HMIS Ratings

Physical 0
Flammability 0
Health 0

NFPA Codes

Fire 0
Health 0
Reactivity 0

Potential Health Effects

Eyes May cause eye irritation.
Ingestion May be harmful if swallowed.
Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Skin May be harmful if absorbed through skin. May cause skin irritation.



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3 COMPOSITION / INFORMATION ON INGREDIENTS

Composition / Information on Ingredients

Synonyms	(2S,3R)-2-Amino-3-hydroxybutyric acid
Chemical Formula	CH ₃ CH(OH)CH(NH ₂)CO ₂ H
Molecular Weight	119.12
CAS No.	72-19-5
EC No.	200-774-1

4 FIRST AID MEASURES

First Aid Measures

Eyes	Flush eyes with water as a precaution.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Inhalation	If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin	Wash with soap and plenty of water. Consult a physician.
Additional Information	Move out of dangerous area. Consult a physician and show this safety data sheet.

5 FIRE FIGHTING MEASURE

Fire Fighting Measures

Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
Hazardous Decomposition	Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides (NO _x)
Fire Fighting Equipment	Wear self contained breathing apparatus for fire fighting if necessary.

6 ACCIDENTAL RELEASE MEASURES

Accidental Release Measures



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Personal Precautions Avoid dust formation. Avoid breathing vapors, mist or gas.

Environmental Precautions Do not empty into drains.

Methods and materials for containment and cleanup Sweep up and shovel. Keep in suitable, closed containers for disposal.

7 HANDLING AND STORAGE

Precautions for Safe Handling

Handling Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for Safe Storage

Storage Store at room temperature away from light and moisture.

8 EXPOSURE CONTROL / PERSONAL PROTECTION

Personal Protection

Eyes - Face Wear safety glasses with side shields (or goggles) and a face shield.

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

Respiratory When appropriate, use NIOSH/CEN approved respirator.

Protective Clothing Wear suitable protective clothing and gloves.

Work Hygienic Practices Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties (Unlabeled Compound)

Form Crystalline Powder



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Color	White
Odor	No data available
Odor Threshold	No data available
pH	5.0 - 6 at 59.6 g/l at 25 °C (77 °F)
Melting Point	256 °C (493 °F)
Boiling Point	260 °C
Flashpoint	No data available
Evaporation Rate	No data available
Fammability	No data available
Lower Explosion Limit	No data available
Upper Explosion Limit	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Density	1.464 g/cm ³
Solubility in Water	59.6 g/l at 20 °C (68 °F) - completely soluble
Partition Coefficient	-1.43
Auto Ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available

10 STABILITY AND REACTIVITY

Stability and Reactivity

Chemical Stability	Stable if stored under recommended conditions.
Possibility of Hazardous Reactions	Not available
Conditions to Avoid	Not available
Hazardous Decomposition Products	Not available
Hazardous decomposition products	Formed under fire conditions: Carbon oxides, nitrogen oxides



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Materials to avoid Strong oxidizing agents

11 TOXICOLOGICAL INFORMATION

Acute Toxicity

Serious No data available

Damage/Eye
Irritation

Skin No data available

Corrosion/Irritation

Inhalation No data available

Respiratory or Skin Not available

Sensitization Not available

Germ Cell Not available

Mutagenicity

IARC No component of this product present at levels greater than or equal to 0.1% is identifiable 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 identifiable 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 identifiable 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 Not available

Toxicity

Specific Target Organ Toxicity

Single Exposure No data available

Repeated Exposure No data available

Signs and Symptoms of Exposure

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

Other Information

RTECS XO8590000

General Comments 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.



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12 ECOLOGICAL INFORMATION

Toxicity

Persistence and Degradability	Not available
Bioaccumulative Potential	Not available
Mobility in Soil	Not available
PBT and vPvB Assessment	Not available
Other Adverse Effects	Not available

13 DISPOSAL CONSIDERATIONS

Disposal Considerations

Product Disposal	Waste materials should be disposed of under conditions which meet Federal, State, and Local environmental control regulations.
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14 TRANSPORT INFORMATION

Transportation Information-DOT/IATA/IMDG

Special Shipping Notes	Not dangerous goods.
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15 REGULATORY INFORMATION

Regulatory Information

No known OSHA hazards.

SARA

Sara 302 Component	No chemicals in this material are subject to the reporting requirements.
Sara 313 Component	No chemicals in this material are subject to the reporting requirements.



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STATE REGULATIONS

Massachusetts Right to Know No
Pennsylvania Right to Know Yes
New Jersey Right to Know Yes

California Proposition 65 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Canada

DSL Status All components are on the Canadian DSL list.

16 OTHER INFORMATION

Manufacturer Disclaimer This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Approved On 03/20/15
Version Number 3