



Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810

Number:
Issue Date

CNLM-2392
06/22/11

Page 1 of 7

MATERIAL SAFETY DATA SHEET

1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description L-ASPARTIC ACID-N-T-BOC, BETA-BENZYL ESTER (U-13C4, 97-99%; 15N, 97-99%)

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 Contact 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.



Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810

Number:
Issue Date

CNLM-2392
06/22/11

Page 2 of 7

MATERIAL SAFETY DATA SHEET

3 COMPOSITION / INFORMATION ON INGREDIENTS

Composition / Information on Ingredients

Synonyms	Boc-L-aspartic acid 4 benzyl ester
Chemical Formula	$C_6H_5CH_2OO^*C^*CH_2^*CH(*NH-t-BOC)^*COOH$
Molecular Weight	328.31
CAS No.	202326-58-7
EC No.	231-406-8

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.
Fire Fighting Equipment	Wear self contained breathing apparatus for fire fighting if necessary.

6 ACCIDENTAL RELEASE MEASURES

Accidental Release Measures

Personal Precautions	Avoid dust formation.
----------------------	-----------------------



Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810

Number:
Issue Date

CNLM-2392
06/22/11

Page 3 of 7

MATERIAL SAFETY DATA SHEET

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

Conditions for Safe Storage

Storage Store refrigerated (-5 C - 5 C) and dessicated. Protect from light.

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 Powder

Color White

pH No data available



Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810

Number:
Issue Date

CNLM-2392
06/22/11

Page 4 of 7

MATERIAL SAFETY DATA SHEET

Melting Point	98 - 102 °C (208 - 216 °F) - lit
Boiling Point	No data available
Flashpoint	No data available
Lower Explosion Limit	No data available
Upper Explosion Limit	No data available
Solubility in Water	No data available
Auto Ignition Temperature	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	Formed under fire conditions: Carbon oxides, nitrogen oxides
Materials to avoid	Strong oxidizing agents

11 TOXICOLOGICAL INFORMATION

Acute Toxicity

Serious Damage/Eye Irritation	No data available
Skin Corrosion/Irritation	No data available
Inhalation	No data available
Respiratory or Skin Sensitization	Not available
Germ Cell Mutagenicity	Not available



Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810

Number:
Issue Date

CNLM-2392
06/22/11

Page 5 of 7

MATERIAL SAFETY DATA SHEET

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 Toxicity Not available

Specific Target Organ Toxicity

Single Exposure	No data available
Repeated Exposure	No data available

Signs and Symptoms of Exposure

The chemical, physical, and toxicological properties have not been thoroughly investigated.

Other Information

General Comments Not available

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



Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810

Number:
Issue Date

CNLM-2392
06/22/11

Page 7 of 7

MATERIAL SAFETY DATA SHEET

Approved On 06/22/11
Version Number 1