



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

Number:
Issue Date

NLM-1907
07/12/11

Page 1 of 6

MATERIAL SAFETY DATA SHEET

1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description L-GLUTAMIC ACID-N-T-BOC, GAMMA-BENZYL ESTER (15N, 98%)

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

NLM-1907
07/12/11

Page 2 of 6

MATERIAL SAFETY DATA SHEET

3 COMPOSITION / INFORMATION ON INGREDIENTS

Composition / Information on Ingredients

Synonyms Boc-L-glutamic acid 5-benzyl ester.

CAS No. 13574-13-5 (unlabeled)

EC No. 237-007-5

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.

Environmental Precautions Do not empty into drains.



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

Number:
Issue Date

NLM-1907
07/12/11

Page 3 of 6

MATERIAL SAFETY DATA SHEET

Methods and materials for containment and cleanup Store refrigerated (-5 C to 5 C) and desiccated.

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.

Melting Point No data available.

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.

Decomposition Temperature



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

Number:
Issue Date

NLM-1907
07/12/11

Page 4 of 6

MATERIAL SAFETY DATA SHEET

10 STABILITY AND REACTIVITY

Stability and Reactivity

Chemical Stability	Stable if stored under recommended conditions.
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

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 chemicals in this material are subject to the reporting requirements.
Repeated Exposure No data available



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

Number:
Issue Date

NLM-1907
07/12/11

Page 5 of 6

MATERIAL SAFETY DATA SHEET

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

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

14 TRANSPORT INFORMATION

Transportation Information-DOT/IATA/IMDG

Special Shipping Notes Not dangerous goods.

15 REGULATORY INFORMATION

Regulatory Information

No known OSHA hazards.



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

Number:
Issue Date

NLM-1907
07/12/11

Page 6 of 6

MATERIAL SAFETY DATA SHEET

SARA

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

Component

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

Component

STATE REGULATIONS

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

Canada

DSL Status Listed on the Canadian NDSL list.

16 OTHER INFORMATION

Manufacturer This product is not radioactive. The data given for this product are those of the corresponding
Disclaimer 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 07/12/11

Version Number 1