



# L-LYSINE:2HCL (1-13C, 99%)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
Issue date: 5/7/2014 Revision date: 6/7/2023 Supersedes: 8/9/2022 Version: 2.4

### SECTION 1: Identification

#### 1.1. Identification

Product form : Substance  
Substance name : L-LYSINE:2HCL (1-13C, 99%)  
CAS-No. : 657-26-1  
Product code : CLM-653  
Formula :  $H_2N(CH_2)_4CH(NH_2) \cdot COOH \cdot 2HCl$   
Synonyms : (S)-2,6-Diaminohexanoic acididihydrochloride

#### 1.2. Recommended use and restrictions on use

No additional information available

#### 1.3. Supplier

Cambridge Isotope Laboratories, Inc.  
50 Frontage Rd  
01810  
ANDOVER, MA, 01810  
USA  
T 1-800-322-1174  
[cilsales@isotope.com](mailto:cilsales@isotope.com) - [www.isotope.com](http://www.isotope.com)

#### 1.4. Emergency telephone number

Emergency number : 1-703-741-5970  
Chemtrec 1-800-424-9300 24 hours

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Skin sensitization, Category 1 H317 May cause an allergic skin reaction  
Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning  
Hazard statements (GHS US) : H317 - May cause an allergic skin reaction  
Precautionary statements (GHS US) : P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.  
P272 - Contaminated work clothing must not be allowed out of the workplace.  
P280 - Wear protective clothing, protective gloves.  
P302+P352 - If on skin: Wash with plenty of water.  
P321 - Specific treatment (see Hazard pictograms (CLP) on this label).  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P501 - Dispose of contents/container to Comply with applicable regulations.

# L-LYSINE:2HCL (1-13C, 99%)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

| Name   | Product identifier | %   | GHS US classification |
|--|--------------------|-----|-----------------------|
| L-LYSINE:2HCL (1-13C, 99%)<br>(Main constituent) | CAS-No.: 657-26-1  | 100 | Skin Sens. 1, H317    |

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

|                                       |   |
|---------------------------------------|---|
| First-aid measures general            | : Move out of dangerous area. Consult a physician and show this safety data sheet.                              |
| First-aid measures after inhalation   | : If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician. |
| First-aid measures after skin contact | : Wash with soap and plenty of water. Consult a physician.  |
| First-aid measures after eye contact  | : Flush eyes with water as a precaution.  |
| First-aid measures after ingestion    | : Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.           |

### 4.2. Most important symptoms and effects (acute and delayed)

|   |   |
|---|---|
| Potential Adverse human health effects and symptoms | : This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. |
| Symptoms/effects after inhalation                   | : May be harmful if inhaled. May cause respiratory tract irritation.  |
| Symptoms/effects after skin contact                 | : May cause an allergic skin reaction.  |
| Symptoms/effects after eye contact                  | : May cause eye irritation.   |
| Symptoms/effects after ingestion                    | : May be harmful if swallowed.  |

### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

### 5.2. Specific hazards arising from the chemical

No additional information available

# L-LYSINE:2HCL (1-13C, 99%)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Avoid dust formation.

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### 6.3. Methods and material for containment and cleaning up

For containment : Take up mechanically (sweeping, shoveling) and collect in suitable container for disposal.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### 7.2. Conditions for safe storage, including any incompatibilities

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

Storage conditions : Store at room temperature away from light and moisture.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### L-LYSINE:2HCL (1-13C, 99%) (657-26-1)

#### USA - ACGIH - Occupational Exposure Limits

|                         |  |
|-------------------------|--|
| ACGIH chemical category | 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. |
|-------------------------|--|

### 8.2. Appropriate engineering controls

No additional information available

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.

# L-LYSINE:2HCL (1-13C, 99%)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Eye protection:

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

### Skin and body protection:

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

### Respiratory protection:

When appropriate, use NIOSH/CEN approved respirator.

### Personal protective equipment symbol(s):



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|   |                               |
|---|-------------------------------|
| Physical state                                  | : Solid                       |
| Appearance                                      | : Crystalline.                |
| Color   | : White                       |
| Odor  | : No data available           |
| Odor threshold                                  | : No data available           |
| pH  | : No data available           |
| Melting point                                   | : 200 – 206 °C (392 - 403 °F) |
| Freezing point                                  | : No data available           |
| Boiling point                                   | : No data available           |
| Flash point                                     | : No data available           |
| Relative evaporation rate (butyl acetate=1)     | : No data available           |
| Flammability (solid, gas)                       | : No data available           |
| Vapor pressure                                  | : No data available           |
| Relative vapor density at 20°C                  | : No data available           |
| Relative density                                | : No data available           |
| Molecular mass                                  | : 220.1 g/mol (Labeled)       |
| Solubility                                      | : No data available           |
| Partition coefficient n-octanol/water (Log Pow) | : No data available           |
| Auto-ignition temperature                       | : No data available           |
| Decomposition temperature                       | : No data available           |
| Viscosity, kinematic                            | : No data available           |
| Viscosity, dynamic                              | : No data available           |
| Explosion limits                                | : No data available           |
| Explosive properties                            | : No data available           |
| Oxidizing properties                            | : No data available           |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

# L-LYSINE:2HCL (1-13C, 99%)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 10.2. Chemical stability

Five years after receipt if stored as stated in "Storage" section. Re-QC after 5 years.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

Strong oxidizing agents.

### 10.6. Hazardous decomposition products

Under fire conditions: Carbon oxides, nitrogen oxides, Hydrogen chloride gas.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|   |   |
|---|---|
| Acute toxicity (oral)                               | : Not classified  |
| Acute toxicity (dermal)                             | : Not classified  |
| Acute toxicity (inhalation)                         | : Not classified  |
| Skin corrosion/irritation                           | : Not classified  |
| Serious eye damage/irritation                       | : Not classified  |
| Respiratory or skin sensitization                   | : May cause an allergic skin reaction.  |
| Germ cell mutagenicity                              | : Not classified  |
| Carcinogenicity                                     | : Not classified  |
| Reproductive toxicity                               | : Not classified  |
| STOT-single exposure                                | : Not classified  |
| STOT-repeated exposure                              | : Not classified  |
| Aspiration hazard                                   | : Not classified  |
| Viscosity, kinematic                                | : No data available   |
| Potential Adverse human health effects and symptoms | : This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. |
| Symptoms/effects after inhalation                   | : May be harmful if inhaled. May cause respiratory tract irritation.  |
| Symptoms/effects after skin contact                 | : May cause an allergic skin reaction.  |
| Symptoms/effects after eye contact                  | : May cause eye irritation.   |
| Symptoms/effects after ingestion                    | : May be harmful if swallowed.  |

## SECTION 12: Ecological information

### 12.1. Toxicity

|                   |  |
|-------------------|--|
| Ecology - general | : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. |
|-------------------|--|

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

# L-LYSINE:2HCL (1-13C, 99%)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Other adverse effects : Disposal must be done according to official regulations. Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.  
Product/Packaging disposal recommendations : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.  
Ecology - waste materials : Dispose of as unused product.

## SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

### 14.1. UN number

Not regulated for transport

### 14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable  
Proper Shipping Name (TDG) : Not applicable  
Proper Shipping Name (IMDG) : Not applicable  
Proper Shipping Name (IATA) : Not applicable

### 14.3. Transport hazard class(es)

#### DOT

Transport hazard class(es) (DOT) : Not applicable

#### TDG

Transport hazard class(es) (TDG) : Not applicable

#### IMDG

Transport hazard class(es) (IMDG) : Not applicable

#### IATA

Transport hazard class(es) (IATA) : Not applicable

### 14.4. Packing group

Packing group (DOT) : Not applicable  
Packing group (TDG) : Not applicable  
Packing group (IMDG) : Not applicable  
Packing group (IATA) : Not applicable

### 14.5. Environmental hazards

Other information : No supplementary information available.

# L-LYSINE:2HCL (1-13C, 99%)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 14.6. Special precautions for user

Special transport precautions : Not dangerous goods.

#### DOT

No data available

#### TDG

No data available

#### IMDG

No data available

#### IATA

No data available

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

| Name                       | CAS-No.  | Listing     | Commercial status | Flags |
|----------------------------|----------|-------------|-------------------|-------|
| L-LYSINE:2HCL (1-13C, 99%) | 657-26-1 | Not present | -                 |       |

### 15.2. International regulations

#### CANADA

##### L-LYSINE:2HCL (1-13C, 99%) (657-26-1)

Listed on the Canadian NDSL (Non-Domestic Substances List)

#### EU-Regulations

No additional information available

#### National regulations

##### L-LYSINE:2HCL (1-13C, 99%) (657-26-1)

CAUTION: This material is supplied for research and development purposes subject to the R&D exemption under TSCA, 40 CFR 720.36, and must meet the requirements of the exemption, including supervision by a "technically qualified individual" as defined by 40 CFR 720.3(ee). The use of this material for "commercial purposes" as defined by 40 CFR 720.3(r) is not permitted in the United States.

Listed on TECI (Thailand Existing Chemicals Inventory)

### 15.3. US State regulations

No additional information available

## SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 06/07/2023

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## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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Other information : 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.

| Full text of H-phrases |                                     |
|------------------------|-------------------------------------|
| H317                   | May cause an allergic skin reaction |

Safety Data Sheet (SDS), USA

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