



# DL-COTININE (97% CHEMICAL PURITY) (2',3',4'-13C3, 99%) 100 UG/ML IN WATER

## Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 05/05/2015

Revision date: 24/06/2015

Version: 1.1

**CLM-9692-S**

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixtures  
Product name : DL-COTININE (97% CHEMICAL PURITY) (2',3',4'-13C3, 99%) 100 UG/ML IN WATER  
Product code : CLM-9692-S

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial.  
For professional use only.

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

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

USA: 1-800-322-1174 Int: 1-978-749-8000

[cilsales@isotope.com](mailto:cilsales@isotope.com) [www.isotope.com](http://www.isotope.com)

#### Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours)

International: 1-703-741-5970 (24 hours)

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

##### Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

##### Classification (GHS-US)

Not classified

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

##### Labeling according to Regulation (EC) No. 1272/2008 [CLP]

No labeling applicable

##### GHS-US labeling

No labeling applicable

#### 2.3. Other hazards

No additional information available

# DL-COTININE (97% CHEMICAL PURITY) (2',3',4'-13C3, 99%) 100 UG/ML IN WATER CLM-9692-S

## Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
WATER UNLABELED	(CAS No) 7732-18-5 (EC no) 231-791-2	99.99	Not classified
DL-COTININE (2',3',4'-13C3, 99%) 97% CHEMICAL PURITY	(CAS No) 486-56-6 (Unlabeled) (EC no)	0.01	Xi; R36/37/38 Xn; R22

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
WATER UNLABELED	(CAS No) 7732-18-5 (EC no) 231-791-2	99.99	Not classified
DL-COTININE (2',3',4'-13C3, 99%) 97% CHEMICAL PURITY	(CAS No) 486-56-6 (Unlabeled) (EC no)	0.01	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

Full text of R-, H- and EUH-phrases: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation : If not breathing give artificial respiration.  
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, both acute and delayed

No additional information available

#### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### 5.2. Special hazards arising from the substance or mixture

Reactivity : Not available.

#### 5.3. Advice for firefighters

Firefighting instructions : The product itself does not burn.  
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

No additional information available

##### 6.1.2. For emergency responders

No additional information available

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

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

For containment : Wipe up with absorbent material (e.g. cloth, fleece).

#### 6.4. Reference to other sections

No additional information available

# DL-COTININE (97% CHEMICAL PURITY) (2',3',4'-13C3, 99%) 100 UG/ML IN WATER CLM-9692-S

## Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

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

Storage conditions : Store refrigerated, do not freeze. Protect from light.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

Personal protective equipment : Safety glasses. Gloves. Protective clothing. Respiratory protection of the dependent type.



Hand protection : Wear suitable protective clothing and gloves.

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.

### SECTION 9: Physical and chemical properties

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

*The properties listed below are for the solvent, the main component of this mixture.*

Physical state	: Liquid
Appearance	: Liquid.
Molecular mass	: 18.02 g/mol
Color	: Colourless.
Odor	: No data available.
Odor threshold	: No data available
pH	: 6.0 - 8.0 at 25 °C (77 °F)
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: 0.0 °C (32.0 °F)
Freezing point	: No data available
Boiling point	: 100.0 °C (212.0 °F)
Flash point	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: 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
Density	: 1 g/ml at 20 °C (68 °F)
Solubility	: Water: Completely miscible
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

# DL-COTININE (97% CHEMICAL PURITY) (2',3',4'-13C3, 99%) 100 UG/ML IN WATER CLM-9692-S

## Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Not available.

### 10.2. Chemical stability

See storage and expiration date on CoA.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Not available.

### 10.5. Incompatible materials

No data available.

### 10.6. Hazardous decomposition products

No data available.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

#### DL-COTININE (97% CHEMICAL PURITY) (2',3',4'-13C3, 99%) 100 UG/ML IN WATER

LD50 oral rat	> 90000 mg/kg
---------------	---------------

#### DL-COTININE (2',3',4'-13C3, 99%) 97% CHEMICAL PURITY (486-56-6 (Unlabeled))

LD50 oral	1604 mg/kg mouse - Remarks: Behavioral: Somnolence (general depressed activity). Behavioral: Excitement. Lungs, Thorax, or Respiration: Dyspnea.
-----------	--

ATE (oral)	500.000 mg/kg body weight
------------	---------------------------

#### WATER UNLABELED (7732-18-5)

LD50 oral rat	> 90000 mg/kg
---------------	---------------

Skin corrosion/irritation : Not classified  
No data available  
pH: 6.0 - 8.0 at 25 °C (77 °F)

Serious eye damage/irritation : Not classified  
No data available  
pH: 6.0 - 8.0 at 25 °C (77 °F)

Respiratory or skin sensitization : Not available  
No data available

Germ cell mutagenicity : Not available

Carcinogenicity : Not classified

Reproductive toxicity : Not available

Specific target organ toxicity (single exposure) : Not classified  
No data available

Specific target organ toxicity (repeated exposure) : Not classified  
No data available

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## SECTION 12: Ecological information

### 12.1. Toxicity

No additional information available

### 12.2. Persistence and degradability

# DL-COTININE (97% CHEMICAL PURITY) (2',3',4'-13C3, 99%) 100 UG/ML IN WATER CLM-9692-S

## Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### DL-COTININE (2',3',4'-13C3, 99%) 97% CHEMICAL PURITY (486-56-6 (Unlabeled))

Persistence and degradability	Not available.
-------------------------------	----------------

#### 12.3. Bioaccumulative potential

### DL-COTININE (2',3',4'-13C3, 99%) 97% CHEMICAL PURITY (486-56-6 (Unlabeled))

Log Pow	No data available
Bioaccumulative potential	Not available.

#### 12.4. Mobility in soil

### DL-COTININE (2',3',4'-13C3, 99%) 97% CHEMICAL PURITY (486-56-6 (Unlabeled))

Ecology - soil	Not available.
----------------	----------------

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and Local environmental control regulations.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

## SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

### 14.1. UN number

Not applicable

### 14.2. UN proper shipping name

Not applicable

### 14.3. Additional information

Other information : No supplementary information available.

Special transport precautions : Not dangerous goods.

#### Overland transport

No additional information available

#### Transport by sea

No additional information available

#### Air transport

No additional information available

### 14.4. Environmental hazards

Other information : No supplementary information available.

### 14.5. Special precautions for user

Special transport precautions : Not dangerous goods.

### 14.6. 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

No additional information available

# DL-COTININE (97% CHEMICAL PURITY) (2',3',4'-13C3, 99%) 100 UG/ML IN WATER CLM-9692-S

## Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 15.2. International regulations

#### CANADA

##### DL-COTININE (97% CHEMICAL PURITY) (2',3',4'-13C3, 99%) 100 UG/ML IN WATER

Listed on the Canadian DSL (Domestic Substances List) inventory.

#### 15.2.1. National regulations

No additional information available

### 15.3. US State regulations

##### DL-COTININE (97% CHEMICAL PURITY) (2',3',4'-13C3, 99%) 100 UG/ML IN WATER()

State or local regulations	U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.
----------------------------	--

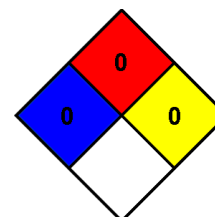
## SECTION 16: Other information

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 R-, H- and EUH-phrases::

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Skin Irrit. 2	skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
R22	Harmful if swallowed
R36/37/38	Irritating to eyes, respiratory system and skin
Xi	Irritant
Xn	Harmful

NFPA health hazard : 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.  
NFPA fire hazard : 0 - Materials that will not burn.  
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



### HMIS III Rating

Health : 0 Minimal Hazard - No significant risk to health  
Flammability : 0 Minimal Hazard  
Physical : 0 Minimal Hazard

CIL Mixture SDS

*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*