



# ACETAMIDE (15N, 98%+)

## 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: 21/01/2011

Revision date: 28/10/2016

Version: 2.0

**NLM-243**

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

#### 1.1. Product identifier

Product form : Substance  
Substance name : ACETAMIDE (15N, 98%+)  
EC index no : 616-022-00-4 (Unlabeled)  
EC no : 200-473-5 (Unlabeled)  
CAS No : 1449-72-5  
Product code : NLM-243  
Formula : CH<sub>3</sub>CO\*<sup>-</sup>NH<sub>2</sub>  
Synonyms : Amide C2

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
Industrial/Professional use spec : 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]

Carc. 2 H351

Full text of H-statements: see section 16

##### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Carc.Cat.3; R40

Full text of R-phrases: see section 16

##### GHS-US classification

Carc. 2 H351

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

Liver.

#### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS08

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Signal word (CLP)	: Warning
Hazard statements (CLP)	: H351 - Suspected of causing cancer (if inhaled, if swallowed, in contact with skin)
Precautionary statements (CLP)	: P201 - Obtain special instructions before use P202 - Do not handle until all safety precautions have been read and understood P280 - Wear protective clothing, protective gloves P308+P313 - IF exposed or concerned: Get medical advice/attention P405 - Store locked up P501 - Dispose of contents/container to Comply with applicable regulations

### GHS-US labelling

Hazard pictograms (GHS-US)



GHS08

Signal word (GHS-US)	: Warning
Hazard statements (GHS-US)	: H351 - Suspected of causing cancer (Dermal, Inhalation, oral)
Precautionary statements (GHS-US)	: P201 - Obtain special instructions before use P202 - Do not handle until all safety precautions have been read and understood P280 - Wear protective clothing, protective gloves P308+P313 - IF exposed or concerned: Get medical advice/attention P405 - Store locked up P501 - Dispose of contents/container to Comply with applicable regulations

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Name	Product identifier	%	Classification according to Directive 67/548/EEC
ACETAMIDE (15N, 98%+) (Main constituent)	(CAS No) 1449-72-5 (EC no) 200-473-5 (Unlabeled) (EC index no) 616-022-00-4 (Unlabeled)	100	Carc.Cat.3; R40

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ACETAMIDE (15N, 98%+) (Main constituent)	(CAS No) 1449-72-5 (EC no) 200-473-5 (Unlabeled) (EC index no) 616-022-00-4 (Unlabeled)	100	Carc. 2, H351

Full text of R- and H-statements: see section 16

Name	Product identifier	%	GHS-US classification
ACETAMIDE (15N, 98%+) (Main constituent)	(CAS No) 1449-72-5	100	Carc. 2, H351

Full text of H-statements: see section 16

### 3.2. Mixture

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 eye with water for 15 minutes. Get medical attention.
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

Symptoms/injuries after inhalation	: May be harmful if inhaled. May cause respiratory tract irritation.
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Symptoms/injuries after skin contact	: May be harmful if absorbed through skin. May cause skin irritation.
Symptoms/injuries after eye contact	: May cause eye irritation.
Symptoms/injuries after ingestion	: May be harmful if swallowed.

### 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 water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

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

No additional information available

### 5.3. Advice for firefighters

Firefighting instructions : Wear self contained breathing apparatus for fire fighting if necessary.  
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 : Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

#### 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. Discharge into the environment must be avoided.

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

For containment : Pick up and arrange disposal without creating dust. Keep in suitable, closed containers 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 : Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.  
Precautions for safe handling : Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.  
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 cool, dry and well-ventilated place.  
Storage conditions : Store at room temperature away from light and moisture.

### 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 : Gloves. Safety glasses. Protective clothing. Self-contained breathing apparatus.



Hand protection : protective 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.

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Respiratory protection : When appropriate, use NIOSH/CEN approved respirator.

### SECTION 9: Physical and chemical properties

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

Physical state : Solid  
Appearance : Crystalline.  
Molecular mass : 60.06 g/mol (Labeled)  
Colour : Colourless, White.  
Odour : No data available  
Odour threshold : No data available  
pH : No data available  
Relative evaporation rate (butylacetate=1) : No data available  
Melting point : 78 - 80 °C (172 - 176 °F) - lit.  
Freezing point : No data available  
Boiling point : 221 °C (430 °F) - lit.  
Flash point : No data available  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Flammability (solid, gas) : No data available  
Vapour pressure : 1 hPa (1 mmHg) at 65 °C (149 °F); 7 hPa (5 mmHg) at 92 °C (198 °F)  
Relative vapour density at 20 °C : No data available  
Relative density : 1.159 g/cm3  
Solubility : Water: Soluble  
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  
Oxidising properties : No data available  
Explosive limits : No data available

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No additional information available

#### 10.2. Chemical stability

Stable if stored under recommended conditions.

#### 10.3. Possibility of hazardous reactions

No additional information available

#### 10.4. Conditions to avoid

Avoid moisture.

#### 10.5. Incompatible materials

Strong oxidizing agents, Strong acids, Strong bases, Strong reducing agents.

#### 10.6. Hazardous decomposition products

Carbon oxides, nitrogen oxide (NOx).

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified

ACETAMIDE (15N, 98%+) (1449-72-5)	
LD50 oral rat	7000 mg/kg
ATE CLP (oral)	7000.000 mg/kg bodyweight

Skin corrosion/irritation : Not classified  
No data available

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Serious eye damage/irritation	: Not classified No data available
Respiratory or skin sensitisation	: Not available No data available
Germ cell mutagenicity	: Not available
Carcinogenicity	: This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification. Limited evidence of carcinogenicity in animal studies.
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	: Stomach - Irregularities - Based on Human Evidence. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
IARC group	: 2B
Symptoms/injuries after inhalation	: May be harmful if inhaled. May cause respiratory tract irritation.
Symptoms/injuries after skin contact	: May be harmful if absorbed through skin. May cause skin irritation.
Symptoms/injuries after eye contact	: May cause eye irritation.
Symptoms/injuries after ingestion	: May be harmful if swallowed.

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>ACETAMIDE (15N, 98%+) (1449-72-5)</b>	
LC50 fish 1	13300 mg/l Gambusia affinis (Mosquito fish) - 96 h

### 12.2. Persistence and degradability

<b>ACETAMIDE (15N, 98%+) (1449-72-5)</b>	
Persistence and degradability	Not available.

### 12.3. Bioaccumulative potential

<b>ACETAMIDE (15N, 98%+) (1449-72-5)</b>	
Bioaccumulative potential	Not available.

### 12.4. Mobility in soil

<b>ACETAMIDE (15N, 98%+) (1449-72-5)</b>	
Ecology - soil	Not available.

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Other adverse effects : Not 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	: 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 ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

UN-No.(DOT)	: 3077
DOT NA no.	UN3077

### 14.2. UN proper shipping name

Proper Shipping Name (DOT) : Environmentally hazardous substances, solid, n.o.s.

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Transport hazard class(es) (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140  
Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)



DOT Symbols : G - Identifies PSN requiring a technical name  
Packing group (DOT) : III - Minor Danger  
DOT Special Provisions (49 CFR 172.102) : 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies.  
146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination.  
335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s." UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leakproof when used as bulk packaging.  
A112 - Notwithstanding the quantity limits shown in Column (9A) and (9B) for this entry, the following IBCs are authorized for transportation aboard passenger and cargo-only aircraft. Each IBC may not exceed a maximum net quantity of 1,000 kg:  
a. Metal: 11A, 11B, 11N, 21A, 21B and 21N  
b. Rigid plastics: 11H1, 11H2, 21H1 and 21H2  
c. Composite with plastic inner receptacle: 11HZ1, 11HZ2, 21HZ1 and 21HZ2  
d. Fiberboard: 11G  
e. Wooden: 11C, 11D and 11F (with inner liners)  
f. Flexible: 13H2, 13H3, 13H4, 13H5, 13L2, 13L3, 13L4, 13M1 and 13M2 (flexible IBCs must be sift-proof and water resistant or must be fitted with a sift-proof and water resistant liner).  
B54 - Open-top, sift-proof rail cars are also authorized.  
IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2).  
IP3 - Flexible IBCs must be sift-proof and water-resistant or must be fitted with a sift-proof and water-resistant liner.  
N20 - A 5M1 multi-wall paper bag is authorized if transported in a closed transport vehicle.  
T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2)  
TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.  
DOT Packaging Exceptions (49 CFR 173.xxx) : 155  
DOT Packaging Non Bulk (49 CFR 173.xxx) : 213  
DOT Packaging Bulk (49 CFR 173.xxx) : 240  
DOT RQ : 100 lbs  
Marine pollutant : No

### 14.3. Additional information

Other information : No supplementary information available.

### Overland transport

Packing group (ADR) : III  
Class (ADR) : 9 - Miscellaneous dangerous substances and articles  
Hazard identification number (Kemler No.) : 90  
Classification code (ADR) : M7

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Danger labels (ADR) : 9 - Miscellaneous dangerous substances and articles



Orange plates : 

Tunnel restriction code : E  
Limited quantities (ADR) : 5kg  
EAC code : 2Z  
Excepted quantities (ADR) : E1

### Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.  
MFAG-No : 171

### Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : No limit  
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : No limit  
Civil Aeronautics Law : Miscellaneous dangerous substances & articles (Hazardous materials notice Appended Table 1 Article 194 of the Enforcement Regulations)

### 14.4. Environmental hazards

Other information : No supplementary information available.

### 14.5. Special precautions for user

### 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

ACETAMIDE (15N, 98%+) (1449-72-5)	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard

### 15.2. International regulations

#### CANADA

ACETAMIDE (15N, 98%+) (1449-72-5)
Listed on the Canadian DSL (Domestic Substances List)

#### 15.2.1. National regulations

No additional information available

### 15.3. US State regulations

ACETAMIDE (15N, 98%+)(1449-72-5)	
State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List WARNING! This product contains a chemical known by the state of California to cause cancer.

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### 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.

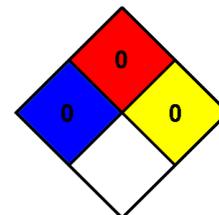
Full text of R-, H- and EUH-statements:

Carc. 2	Carcinogenicity, Category 2
H351	Suspected of causing cancer
R40	Limited evidence of a carcinogenic effect

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 Multi-Solvent 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*