



# BETA-N-METHYLAMINO-L-ALANINE HCL (97% CP) UNLABELED

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 19/12/2017

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Version: 1.0

ULM-10493

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

### 1.1. Product identifier

Product form : Substance  
Substance name : BETA-N-METHYLAMINO-L-ALANINE HCL (97% CP) UNLABELED  
CAS No : 16012-55-8  
Product code : ULM-10493  
Formula : C4H10N2O2·HCl  
Synonyms : S(+)-2-Amino-3-(methylamino)propionic acidhydrochloride / L-BMAA hydrochloride

### 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]

Acute Tox. 4 (Oral) H302  
Acute Tox. 4 (Inhalation) H332  
Skin Irrit. 2 H315  
Eye Irrit. 2 H319

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

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

Xn; R20/22  
Xi; R36/38

Full text of R-phrases: see section 16

#### GHS-US classification

Acute Tox. 4 (Oral) H302  
Acute Tox. 4 (Inhalation) H332  
Skin Irrit. 2 H315  
Eye Irrit. 2 H319

Full text of H statements : see section 16

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

No additional information available

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### 2.2. Label elements

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

Hazard pictograms (CLP)	:	 GHS07
Signal word (CLP)	:	Warning
Hazard statements (CLP)	:	H302+H332 - Harmful if swallowed or if inhaled H315 - Causes skin irritation H319 - Causes serious eye irritation
Precautionary statements (CLP)	:	P261 - Avoid breathing dust, fume, gas, mist, spray, vapors P264 - Wash hands, forearms and face thoroughly after handling P270 - Do not eat, drink or smoke when using this product P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective clothing, protective gloves P301+P312 - IF SWALLOWED: Call a doctor if you feel unwell P302+P352 - IF ON SKIN: Wash with plenty of soap and water P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

#### GHS-US labeling

Hazard pictograms (GHS-US)	:	 GHS07
Signal word (GHS-US)	:	Warning
Hazard statements (GHS-US)	:	H302+H332 - Harmful if swallowed or if inhaled H315 - Causes skin irritation H319 - Causes serious eye irritation
Precautionary statements (GHS-US)	:	P261 - Avoid breathing dust, fume, gas, mist, spray, vapors P264 - Wash hands, forearms and face thoroughly after handling P270 - Do not eat, drink or smoke when using this product P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective clothing, protective gloves P301+P312 - If swallowed: Call a doctor if you feel unwell P302+P352 - If on skin: Wash with plenty of water P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P312 - Call a doctor if you feel unwell P321 - Specific treatment (see Hazardous component(s) for labeling on this label) P330 - Rinse mouth P332+P313 - If skin irritation occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention P362+P364 - Take off contaminated clothing and wash it before reuse P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Name	Product identifier	%	Classification according to Directive 67/548/EEC
BETA-N-METHYLAMINO-L-ALANINE HCL (97% CP) UNLABELED	(CAS No) 16012-55-8	100	Xn; R20/22 Xi; R36/38

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
BETA-N-METHYLAMINO-L-ALANINE HCL (97% CP) UNLABELED	(CAS No) 16012-55-8	100	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319

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

Name	Product identifier	%	GHS-US classification
BETA-N-METHYLAMINO-L-ALANINE HCL (97% CP) UNLABELED (Main constituent)	(CAS No) 16012-55-8	100	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319

Full text of H-phrases: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice (show the label where possible). Evacuate danger area.
First-aid measures after inhalation	: When symptoms occur: go into open air and ventilate suspected area. If not breathing, give artificial respiration. Get medical advice/attention.
First-aid measures after skin contact	: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Wash with plenty of soap and water, Get immediate medical advice/attention. Get medical advice/attention. Specific treatment (see Hazard pictograms (CLP) on this label).
First-aid measures after eye contact	: Rinse cautiously with water for several minutes.
First-aid measures after ingestion	: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	: Harmful if inhaled. May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard. 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 : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).

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

No additional information available

### 5.3. Advice for firefighters

Firefighting instructions	: Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Wear recommended personal protective equipment.

## 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 as required. Avoid breathing vapors, mist, gas. Avoid dust formation. Ensure adequate air ventilation.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Do not allow to enter drains or water courses. Avoid release to the environment.

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

- For containment : Take up mechanically (sweeping, shoveling) and collect in suitable container for disposal.  
Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Additional hazards when processed : Avoid all eye and skin contact and do not breathe vapor and mist. Avoid dust formation. Caution. Combustible Dust. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.
- Precautions for safe handling : Provide adequate ventilation to minimize dust and/or vapor concentrations.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in accordance with good industrial hygiene and safety practice.

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

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

- Appropriate engineering controls : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
- Personal protective equipment : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.



- Materials for protective clothing : Wear suitable protective clothing and gloves.
- Hand protection : Wear suitable protective clothing and gloves.
- Eye protection : Wear eye protection. Chemical goggles or face shield with safety glasses.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator.
- Environmental exposure controls : Avoid release to the environment.

## SECTION 9: Physical and chemical properties

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

- Physical state : Solid
- Appearance : Solid.
- Molecular mass : 154.6 g/mol
- Color : White.
- Odor : No data available
- Odor threshold : No data available
- pH : No data available
- Relative evaporation rate (butyl acetate=1) : No data available
- Melting point : 172 - 173 °C (342 - 343 °F)
- Freezing point : No data available
- Boiling point : No data available
- Flash point : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : No data available

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Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
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
Explosion 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

No additional information available

### 10.5. Incompatible materials

Strong oxidizing agents.

### 10.6. Hazardous decomposition products

Carbon oxides (CO, CO<sub>2</sub>). Hydrogen chloride gas. Nitrogen oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed. Inhalation: Harmful if inhaled.

BETA-N-METHYLAMINO-L-ALANINE HCL (97% CP) UNLABELED (16012-55-8)	
ATE CLP (oral)	500.000 mg/kg body weight
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Harmful if swallowed. Stomach - Irregularities - Based on Human Evidence. May cause Guam disease. 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/injuries after inhalation	: Harmful if inhaled. May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard. Harmful if swallowed.

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### 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

#### 12.4. Mobility in soil

No additional information 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.

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 ADR / RID / IMDG / IATA / ADN

#### 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 classified as dangerous in the meaning of transport regulations.

#### 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 classified as dangerous in the meaning of transport regulations.

#### 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

BETA-N-METHYLAMINO-L-ALANINE HCL (97% CP) UNLABELED (16012-55-8)	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.

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### 15.2. International regulations

#### CANADA

##### BETA-N-METHYLAMINO-L-ALANINE HCL (97% CP) UNLABELED (16012-55-8)

Listed on the Canadian DSL (Domestic Substances List)

#### 15.2.1. National regulations

No additional information available

### 15.3. US State regulations

##### BETA-N-METHYLAMINO-L-ALANINE HCL (97% CP) UNLABELED(16012-55-8)

U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
State or local regulations	U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

## 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.

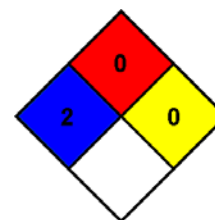
Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
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
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
R20/22	Harmful by inhalation and if swallowed
R36/38	Irritating to eyes and skin
Xi	Irritant
Xn	Harmful

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 0 - Materials that will not burn under typical dire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



### HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

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*