

Product Name:	L-Asparagine Monohydrate	Version:	5
Product Code:	941, 942, 944	Date:	2018-05-24
Manufacturer:	AMINO GmbH		

1. Substance/ Preparation of the substance and name of the company

1.1 Substance name

L-Asparagine Monohydrate

1.2 Name and address of the manufacturer and supplier

Amino GmbH
An der Zucker-Raffinerie 9
38373 Frellstedt
Germany

Phone: +49 5355/ 91 00 0
Fax: +49 5355/ 91 00 713
Emergency Information:
Emergency Telephone: +49 53 55/ 91 00 0 (from Monday to Friday between 8 am and 5 pm)
Contact for information: msds@amino.de

1.3 Use of substance/preparation

infusion and injection, pharmaceutical actives, intermediates, specialized nutritional products, cell culture media, excipients

2. Hazards identification

The present results for assessment are not applicable for classification by hazard characteristics according to the guideline 67/ 548/ EWG and CLP-regulation no. 1272/2008 and the appropriate national legislation.

3. Composition/ Information on ingredients

CAS No.: 5794-13-8
EC No.: 200-735-9
REACH Reg. No.: 01-2120752053-64-0003
Molecular weight: 150.14 g/mol
Formula: $C_4H_8N_2O_3 \cdot H_2O$
Chemical name: 2-Amino-3-carbamoylpropanoic acid

4. First aid measures

- 4.1 General: --
- 4.2 Inhalation: Remove patient to fresh air and seek medical advice in case of irritation.
- 4.3 Skin contact: Wash exposed area with water. Get medical advice if irritation develops.
- 4.4 Eye contact: Rinse thoroughly with water whilst lifting eyelids.
- 4.5 Ingestion (bigger amounts): Drink plenty of water. In case of indisposition seek medical advice.
- 4.6 Notes to physicians: --

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5. Fire fighting measures

- | | |
|-----------------------------------|--|
| 5.1 Fire extinguishing media: | Water spray, dry chemical, alcohol foam or carbon dioxide. |
| 5.2 Particular hazards: | Combustible. Development of hazardous combustion gases or vapours possible in the event of fire. |
| 5.3 In case of fire might emerge: | Nitrogen oxides. |

6. Accidental release measures

- | | |
|-----------------------------|--|
| 6.1 Precautionary measures: | Avoid raising dust. Do not inhale dust. |
| 6.2 Clean up activities: | Sweep up dry, dispose as waste and clean subsequently. |

7. Handling and storage

- | | |
|---------------|---|
| 7.1 Handling: | No particular requirements. |
| 7.2 Storage: | Dry and in tightly closed containers at room temperature. |

8. Exposure controls and personal protection

- | | | |
|--------------------------|-----------------------|-----------------------------|
| 8.1 Personal protection: | Breathing protection: | dustmask P1 |
| | Eye protection: | protective glasses |
| | Hand protection: | protective gloves |
| | Body protection: | suitable protective clothes |
- 8.2 Informations on working hygiene: Wash hands thoroughly after contact with the material. Dispose of contaminated clothing.

9. Physical and chemical properties

- | | |
|-----------------|--------------------------------|
| 9.1 Appearance: | |
| Form: | crystals or crystalline powder |
| Colour: | white or nearly white |
| Odour: | nearly odourless |

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9.2 Security relevant data:

pH value: 4.0 - 5.5 (20 g/L H₂O, 20°C)

Melting temperature: 215 - 217°C

Boiling temperature: not available

Ignition temperature: not available

Combustion point: not available

Explosion limits: lower not available
upper not available

Density: not available

Bulk density: ~ 530 kg/m³

Solubility in water (20°C) 22 g/L H₂O

Thermal decomposition: > 215 °C

10. Stability and reactivity

10.1 Incompatible materials and conditions to avoid:

Strong oxidizing agents, strong heating

10.2 Hazardous combustion and decomposition products:

Nitrogen oxides

11. Toxicological information

11.1 Acute toxicity:

Classification relevant LD/LC 50 values: not available

11.2 Primary irritation: not available

11.3 Chronic effects: not available

11.4 Experiences on humans: not available

11.5 Other toxic information:

Non-essential amino acid that occurs in many forms of natural proteins. No toxic health effects known when properly handled.

11.6 Other information:

This material is to handle with the necessary care usual when dealing with chemicals.

12. Ecological information

At proper handling and use no ecological harms are known. Bioaccumulation is not expected (log P(o/w)<1).

Other informations: none

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13. Disposal information

Product:
Disposal according to respective national regulations.

Packaging:
Disposal according to respective national regulations.

14. Transportation information

No hazardous material according to transportation regulations.

15. Regulatory information**15.1 Labelling according to EU regulations**

The present results for assessment are not applicable for classification by hazard characteristics according to the guideline 67/ 548/ EWG and CLP-regulation no. 1272/2008 and the appropriate national legislation, therefore no hazardous symbol, labelling and R-phrases / H-phrases and S-phrases / P-phrases are necessary.

15.2 Compliance to US regulations:

MSDS complies with US regulation 29 CFR 1910.1200

15.3 German regulations:

Water hazardous classification: 1
Others: storage class VCI: 10-13

16. Other information

The data given herein are based on current knowledge and experience. There is no demand of completeness and the user should consider this Safety Data Sheet only as a guide.

Revision index

reason of revision	valid from
Version 1: issue of this document	2010-05-31
Version 2: general update in chapter 1, 2, 15 and header, change in chapter 2 and 3, classification of substances according to 67/548/EWG and CLP-regulation no. 1272/2008, inclusion of revision index in chapter 16	2010-11-30
Version 3: update of appearance (9.1) addition of new article codes / material codes	2017-07-01
Version 4: Compliance to US regulation 29 CFR 1910.1200	2017-11-30
Version 5: Compliance to EC-regulation No. 1907/2006 (REACH)	2018-05-24