



SAFETY DATA SHEET

L-Valine [Feed Grade (96.5%)]

A MSDS is not required for the concerned product in accordance with the Regulation (EC) n° 1907/2006 and these codicils. The present information sheet was voluntarily created.

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1. Product identifier

Trade Name: L-Valine Feed Grade

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1.2. Relevant identified uses of the product

Identified uses: This product shall exclusively be used in animal nutrition.
It shall not be used for any food application

1.3. Identification of the Company

Manufacturing Company: AJINOMOTO ANIMAL NUTRITION EUROPE
153, rue de Courcelles
75817 PARIS CEDEX 17 – FRANCE

Telephone number: +33 1 44 40 12 12

Telefax: +33 1 44 40 12 13

Email: Infos_FDS@eli.ajinomoto.com

Distributing Company: Ajinomoto Animal Nutrition North America, Inc.
1116 Hwy 137
Eddyville, Iowa 52553
Phone: 641- 969-4551 – Eddyville IA
773-380-7000 – Chicago, IL.

1.4. Emergency telephone number +33 3 22 54 70 00

2. HAZARDS IDENTIFICATION

2.1. Classification of the mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

This product is not classified according to Regulation (EC) No 1272/2008.

Classification according to Directive 67/548/EEC

This product is not classified according to Directive 67/548/EEC

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2.2. Label Elements

Labeling according to regulation (EC) No 1272/2008 [EU-GHS/CLP]

Pictogram (s): -
 Signal Word: -
 Hazard Statement: -
 Precautionary Statement Prevention: -
 Precautionary Statement Response: -
 Precautionary Statement Storage: -
 Precautionary Statement Disposal: -

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Labeling according to Directive 67/548/EEC

Symbol (s): -
 Risk phrase (s): -
 Safety advice: -

2.3. Other Hazards: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | Classification | Concentration |
|-----------------------------------|----------------|------------------|
| L-Valine | | |
| α-Aminoisovaleric acid | | |
| (S)-2-Amino-3-methylbutanoic acid | | |
| L-Val, C5H11NO2 | | |
| No CAS: 72-18-4 | | >96.5% (as is) & |
| No EINECS: 200-773-6 | - - | > 98% (dry |
| No Index: - | - - | matter basis) |

4. FIRST AID MEASURES

4.1. Description of first aid measures

General advices

No data available

If inhaled

In case of breathing trouble, immediately relocate to a fresh air environment. Rinse mouth with water. If not breathing, give artificial respiration. If breathing becomes difficult, give oxygen and seek medical attention.

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In case of skin contact

In case of exposure, wash with soap and copious amounts of water. If irritation persists, seek medical attention.

In case of eye contact

Flush eyes with copious amounts of water for at least 15 minutes. Ensure adequate flushing by separating eyelids with fingers. If contact lenses are worn, remove lenses and continue rinsing. Seek medical attention.

If swallowed

Rinse mouth with water. If any trouble appears, seek medical attention.

4.2. Most important symptoms and effects, both acute and delayed: No data available

4.3. Indication of any immediate medical attention and special treatment needed: No data available

5. FIREFIGHTING MEASURES

5.1. Extinguishing media: Water spray, carbon dioxide, dry chemical powder/foam.

5.2. Special hazards arising from substance or mixture: No data available

5.3. Advice for firefighters: Wear protective clothing and breathing mask to protect from fumes

5.4. Further information: No data available

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures: Wear a mask. (See paragraph 8).

6.2. Environmental precautions: In case of release in large quantities, avoid releasing in sewers and water courses.

6.3. Methods and materials for containment and cleaning

Prevent spills from entering sewers and water courses.

Avoid dust generation and ventilate the area. Collect the product and place it in bags or containers for later disposal and elimination as waste, according to local legislation. After material has been removed, rinse the spill site with water.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

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Follow good manufacturing practice and personal hygiene.
 Standard precautions for powdered products or products generating dust:

- Avoid dust dispersion during grinding or blending operations
- Provide mechanical exhaust or ventilation
- Clean and eliminate dust from equipment regularly
- Use anti-static equipment
- Avoid heat sources and sparks.

7.2. Conditions for safe storage, including any incompatibilities

Storage in the bags in which the product has been delivered.
 Keep in dry conditions.
 Keep away from electric sparks and heat sources.

7.3. Specific end uses: No data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

Components with workplace control parameters

Does not contain any substance subject to an exposure limit value.

8.2. Exposure controls

Engineering controls: No data available

Personal protective equipment

Eye/face protection

Wear safety goggles in case of direct contact

Body protection

Wear protective clothes covering skin. Discard

or

wash protective clothes after exposure to dust of the product.

Skin protection

Wear gloves, especially in case of extended

contact

Respiratory protection

Wear a (paper) mask covering nose and mouth.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance

White powder

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|--|---|
| Odor | No data available |
| Odor Threshold | No data available |
| pH | 5 to 6 (5% solution) |
| Melting point / freezing point | 315°C (closed capillary), then sublimes |
| Initial boiling point and boiling range | No data available |
| Flash point | No data available |
| Evaporation rate | No data available |
| Flammability (solid, gas) | No data available |
| Upper / lower flammability or explosive limits | No data available |
| Vapor pressure | No data available |
| Vapor density | 0.5 to 0.6 |
| Water solubility | At 0°C: 83.4 g/L At 25°C: 88.5 g/L At 50°C: 96.2 g/L At 65°C: 102.4 g/L |
| Partition coefficient: n-octanol / water | Log Pow = -2.30 |
| Auto ignition | Between 10mJ and 30mJ |
| Decomposition temperature | 315°C |
| Self-ignition temperature | >400°C (layer) |
| Viscosity | No data available |
| Explosive properties | Explosion maximal overpressure: 5.7 bar Maximum explosion pressure rise: 507 bar.s ⁻¹ Kst: 138 bar.m/s ⁻¹ The product is classified in ST1 class |
| Oxidizing properties | No data available |

9.2. Other safety information: No data available

10. STABILITY AND REACTIVITY

10.1. Reactivity: Exothermic reaction between 340°C and 360°C

10.2. Chemical stability: Stable for 2 years if stored in recommended conditions.

10.3. Possibility of hazardous reactions: No data available

10.4. Conditions to avoid: Avoid electrostatic sparks and ignition sources.

10.5. Incompatible materials: No data available on incompatible materials.

10.6. Hazardous decomposition products: When heated to decomposition, carbon and nitrous oxides will be emitted.

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11. TOXICOLOGICAL INFORMATION

11.1. Acute toxicity

Acute oral toxicity: Not toxic when ingested: acute oral LD50 > 2000mg/kg in rat.

Acute inhalation toxicity: Not toxic when inhaled: LC50 ≥ 5.26 g/m³ in rat.

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11.2. Skin corrosion / irritation

Not irritating to (human) skin (according to EC standards, OJEC, L 110 A, Vol 36, 4 May 1993)

11.3. Serious eye damage / eye irritation

Not irritation to (human) eyes (according to EC standards, OJEC, L 110 A, Vol 36, 4 May 1993).

11.4. Respiratory or skin sensitization: Not sensitizing for the skin.

11.5. Germ cell mutagenicity

Not mutagenic (Bacterial reverse mutation test, Gene mutation test at the TK-locus of L5178Y cells, Chromosomal aberration test in cultured Chinese hamster Ovary (CHO) cells).

11.6. Carcinogenicity: No data available

11.7. Reproductive toxicity

Based on study report and to the best knowledge of AANE, no effect on fetal development.

11.8. Specific target organ toxicity – single exposure: No data available

11.9. Specific target organ toxicity – repeated exposure: No data available

11.10. Aspiration hazard: No data available

11.11. Signs and symptoms of exposure: No data available

11.12. Additional information

NOAEL (No adverse effect level, oral administration) is conservatively: 628 mg/kg bw (90 day sub-chronic toxicity in rat).

12. ECOLOGICAL INFORMATION

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14.6. **Special precautions for user:** No data available

15. REGULATORY INFORMATION

15.1. **Safety, health and environmental regulations / legislation specific for the substance or mixture**

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This product is within the scope of Regulation (EC) No 1831 / 2003 of 22 / 09 / 2003 on additives for use in animal nutrition (OJ EU n° L 268 of 18 / 10 / 2003).

15.2. **Chemical Safety Assessment:** No data available

16. OTHER INFORMATION

References

Manufacture: AANE MSDS dated 8/11/2018

The Merck Index 13th edition. Merck and Co., 2001

Partition coefficient (n-octanol / water):

TNO Quality of Life, Zeist, The Netherlands.
Report to Ajinomoto Eurolysine No V8947 / 09
(15 July 2010).

Particle size distribution & Dusting potential:

TNO Nutrition and Food Research, Zeist,
The Netherlands, BCV_05_0292 / SMC (2005).

Flammability, explosion characteristics,
auto-ignition, etc.:

INERIS. Study report of Ajinomoto Eurolysine
No 76597, 12 July 2006.

Acute oral toxicity:

TNO Nutrition and Food Research, Zeist,
The Netherlands. Report to Ajinomoto Eurolysine
No V6210 / 04, 2005

Acute 4-hour toxicity study in rat:

TNO Nutrition and Food Research, Zeist,
The Netherlands. Report to Ajinomoto Eurolysine
No V6201 / 08, 4 Oct 2005.

Skin and eye

TNO Nutrition and Food Research, Zeist.

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| Irritation / corrosion | The Netherlands. Reports to Ajinomoto Eurolysine No V6211 / 03 (June 2005) and No V6215 / 14 (June 2005). |
| Skin sensitization: | TNO Nutrition and Food Research, Zeist, The Netherlands. Report to Ajinomoto Eurolysine No V6496, 27 Sept. 2005 |
| Mutagenicity: | TNO Nutrition and Food Research, Zeist, The Netherlands. Reports to Ajinomoto Eurolysine V6205 / 06 (2005), No V6202 / 02 (2005) and No V6203 / 04 (2005). |
| Sub-chronic toxicity: | TNO Nutrition and Food Research, Zeist, The Netherlands. Report to Ajinomoto Eurolysine No V6357, (2006) Tsubuku and al. 2004 <i>International Journal of Toxicology</i> , vol. 23, pp. 119-126 |
| Prenatal developmental toxicity: | TNO Nutrition and Food research, Zeist, The Netherlands. Report of Ajinomoto Eurolysine No V6306 (2005). |

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For this reason, among others, we decline any liability in case of loss, damage or cost resulting of or linked to, in any manner, the handling, storage, use or disposal of the product.

This present information was written and shall be used only for this product. Were this product used as a constituent of another product, information contained in this sheet may no longer apply.

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