SAFETY DATA SHEET
L-Valine [Feed Grade(96.5%)]

Manufactured by: Ajinomoto Eurolysine SAS
Paris, France

Distributed by: Ajinomoto Heartland, Inc.
1116 Hwy 137
Eddyville, IA 52553

Emergency Phone: (641) 969-4551 – Eddyville, IA
(773) 380-7000 – Chicago, IL

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

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

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1.3. Identification of the Company
Manufacturing Company: AJINOMOTO EUROLYSINE SAS
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

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

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: -

Labeling according to Directive 67/548/EEC
Symbol (s): -
Risk phrase (s): -
Safety advice: -

2.3. Other Hazards
None

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Components | Classification | Concentration
---|---|---
L-Valine | | 
α-Aminoisovaleric acid | | 
(S)-2-Amino-3-methylbutanoic acid | | 
L-Val, C_{9}H_{11}NO_{2} | | 
No CAS: | 72-18-4 | >96.5% (as is) & >98% (dry matter basis)
No EINECS: | 200-773-6 | |
No Index: | - | -

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.
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 mast to protect from fumes

5.4. Further information

No data available

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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
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.

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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 clothing 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

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

Log Pow = -2.30

Partition coefficient: n-octanol / water
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

No data available

9.2. Other safety information
No data available

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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.

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.

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.

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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 Ajinomoto Eurolysine, 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

12.1. Toxicity

Not toxic for animal and plant.

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12.2. Persistence and degradability

Biodegradable

12.3. Bioaccumulative potential

None.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

When a large quantity of the product is released in a river or waste treatment plant, the ecosystem or the functioning of the plant may be disturbed due to increased demand in oxygen required to degrade the product (increase of the biological oxygen demand – BOD = 0.849 g/g – of water)

13. Disposal Consideration

Waste treatment methods

Treat wastes in accordance with the local // national legislation.

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14. Transport Information

14.1. UN Number
ADR / RID: - \hspace{1cm} IMDG: - \hspace{1cm} IATA: -

14.2. UN proper shipping name
ADR / RID: - \hspace{1cm} IMDG: - \hspace{1cm} IATA: -

14.3. Transport hazard class (es)
ADR / RID: - \hspace{1cm} IMDG: - \hspace{1cm} IATA: -

14.4. Packing group
ADR / RID: - \hspace{1cm} IMDG: - \hspace{1cm} IATA: -

14.5. Environmental hazards
ADR / RID: No \hspace{1cm} IMDG Marine pollutant: No \hspace{1cm} IATA: No

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

15.2. Chemical Safety Assessment
No data available

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16. OTHER INFORMATION

References


Partition coefficient (n-octanol / water):
TNO Quality of Life, Zest, The Netherlands. Report to Ajinomoto Eurolysine No V8947 / 09 (15 July 2010).

Particle size distribution & Dusting potential:

Flammability, explosion characteristics, auto-ignition, etc.:
INERIS. Study report at Ajinomoto Eurolysine No 76597, 12 July 2006.

Acute oral toxicity:
TNO Nutrition and Food Research, Zest, The Netherlands. Report to Ajinomoto Eurolysine No V6210 / 04, 2005

Acute 4-hour toxicity study in rat:

Skin and eye

Irritation / corrosion
TNO Nutrition and Food Research, Zest. The Netherlands. Reports to Ajinomoto Eurolysine No V6211 / 03 (June 2005) and No V6215 / 14 (June 2005).

Skin sensitization:

Mutagenicity:
TNO Nutrition and Food Research, Zest, The Netherlands. Reports to Ajinomoto Eurolysine V6205 / 06 (2005), No V6202 / 02 (2005) and No V6203 / 04 (2005).

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Sub-chronic toxicity:
TNO Nutrition and Food Research, Zeist,
The Netherlands. Report to Ajinomoto Eurolysine
No V6357, (2006)
Tsubuku and al. 2004 *International Journal of
Toxicology*, 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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