Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 22.03.2021 *Revision: 22.03.2021*

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

· **1.1 Product identifier**

· **Trade name: L-Valine**

· **Article number:** A158
· **CAS Number:**
72-18-4
· **EC number:**
200-773-6
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
· **Application of the substance / the mixture** Customer-specific application

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Pharma Waldhof
Hansaallee 159
D-40549 Düsseldorf
Germany
Tel.: +49-211-52602-0
Fax: +49-211-52602-22, -60
e-mail: contact.dus@aceto.com

· **Further information obtainable from:** Quality Unit & Regulatory Affairs
· **1.4 Emergency telephone number:**
Centre for Detoxification: Mainz/Germany, Tel.: +49-(0)6131-19240

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**
The substance is not classified, according to the CLP regulation.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008** Void
· **Hazard pictograms** Void
· **Signal word** Void
· **Hazard statements** Void
· **Precautionary statements**
P261 Avoid breathing dust.
P262 Do not get in eyes, on skin, or on clothing.
· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 22.03.2021 Revision: 22.03.2021

Trade name: L-Valine

(Contd. of page 1)

SECTION 3: Composition/information on ingredients

· **3.1 Chemical characterisation: Substances**
· **CAS No. Description**
72-18-4 L-Valine
· **Identification number(s)**
· **EC number:** 200-773-6

SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **General information:** Immediately remove any clothing soiled by the product.
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:**
Immediately rinse with water.
If skin irritation continues, consult a doctor.
· **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:**
Rinse out mouth and then drink plenty of water.
Seek immediate medical advice.
· **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
· **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
· **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
· **5.3 Advice for firefighters**
· **Protective equipment:** Wear self-contained respiratory protective device.
· **Additional information**
Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Avoid formation of dust.
· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 22.03.2021 *Revision: 22.03.2021*

Trade name: L-Valine

(Contd. of page 2)

· ***6.3 Methods and material for containment and cleaning up:***
Ensure adequate ventilation.
Pick up mechanically.
Dispose of the material collected according to regulations.
· ***6.4 Reference to other sections***
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· ***7.1 Precautions for safe handling*** *Ensure good ventilation/exhaustion at the workplace.*
· ***Information about fire - and explosion protection:***
Dust can combine with air to form an explosive mixture.

· ***7.2 Conditions for safe storage, including any incompatibilities***
· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:*** *Store only in the original receptacle.*
· ***Information about storage in one common storage facility:*** *Not required.*
· ***Further information about storage conditions:***
Store in cool, dry conditions in well sealed receptacles.
Keep container tightly sealed.
· ***Storage class:*** *10-13 (VCI)*
· ***7.3 Specific end use(s)*** *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

· ***8.1 Control parameters***
· ***Additional information about design of technical facilities:*** *No further data; see item 7.*
· ***Ingredients with limit values that require monitoring at the workplace:*** *Not required.*
· ***Additional information:*** *The lists valid during the making were used as basis.*

· ***8.2 Exposure controls***
· ***Personal protective equipment:***
· ***General protective and hygienic measures:***
The usual precautionary measures are to be adhered to when handling chemicals.
Avoid contact with the eyes and skin.
Immediately remove all soiled and contaminated clothing
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
· ***Respiratory protection:***
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
· ***Protection of hands:***
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 22.03.2021 *Revision: 22.03.2021*

Trade name: L-Valine

(Contd. of page 3)

· ***Material of gloves***
Nitrile rubber, NBR
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
· ***Penetration time of glove material***
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· ***Eye protection:***

Tightly sealed goggles

· ***Body protection:*** *Light weight protective clothing*

SECTION 9: Physical and chemical properties

· ***9.1 Information on basic physical and chemical properties***	
· ***General Information***	
· ***Appearance:***	
Form:	*Crystalline*
Colour:	*White*
· ***Odour:***	*Odourless*
· ***Odour threshold:***	*Not determined.*
· ***pH-value:***	*~6*
· ***Change in condition***	
Melting point/freezing point:	*315 °C*
Initial boiling point and boiling range:	*Undetermined.*
· ***Flash point:***	*>100 °C*
· ***Flammability (solid, gas):***	*Product is not flammable.*
· ***Decomposition temperature:***	*Not determined.*
· ***Auto-ignition temperature:***	*Not determined.*
· ***Explosive properties:***	*Product does not present an explosion hazard.*
· ***Explosion limits:***	
Lower:	*Not determined.*
Upper:	*Not determined.*
· ***Vapour pressure:***	*Not applicable.*
· ***Density at 20 °C:***	*1.23 g/cm³*
· ***Relative density***	*Not determined.*
· ***Vapour density***	*Not applicable.*
· ***Evaporation rate***	*Not applicable.*

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 22.03.2021 Revision: 22.03.2021

Trade name: L-Valine

(Contd. of page 4)

· **Solubility in / Miscibility with water at 25 °C:**	88.5 g/l
· **Partition coefficient: n-octanol/water:**	-2.26
· **Viscosity:**	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· **9.2 Other information**	No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.
· **10.2 Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **10.3 Possibility of hazardous reactions** No dangerous reactions known.
· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:** Strong oxidizing agents
· **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

Oral	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	>5.26 mg/l (rat)

· **Primary irritant effect:**
· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
· **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
· **Additional toxicological information:**
The product should be handled with the care usual when dealing with chemicals.
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Based on available data, the classification criteria are not met.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.
· **Aspiration hazard** Based on available data, the classification criteria are not met.

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 22.03.2021 *Revision: 22.03.2021*

Trade name: L-Valine

(Contd. of page 5)

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**	
EC10 (16h)	>9900 mg/l (Pseudomonas putida)
EC50 (24h)	>10000 mg/l (Daphnia magna)
LC50 (96h)	>10,000 mg/l (Danio rerio (fish))

· **12.2 Persistence and degradability**
Biodegradation: >80%/28 d.
Easily biodegradable
· **12.3 Bioaccumulative potential** No further relevant information available.
· **12.4 Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow product to reach ground water, water course or sewage system.
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

No hazardous good in the sense of transport regulations.

· **14.1 UN-Number**	
· **ADR, IMDG, IATA**	Void
· **14.2 UN proper shipping name**	
· **ADR, IMDG, IATA**	Void
· **14.3 Transport hazard class(es)**	
· **ADR, ADN, IMDG, IATA**	
· **Class**	Void

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 22.03.2021 *Revision: 22.03.2021*

Trade name: L-Valine

(Contd. of page 6)

· **14.4 Packing group** · **ADR, IMDG, IATA**	*Void*
· **14.5 Environmental hazards:**	*Not applicable.*
· **14.6 Special precautions for user**	*Not applicable.*
· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**	*Not applicable.*
· **UN "Model Regulation":**	*Void*

SECTION 15: Regulatory information

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

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** *Substance is not listed.*
· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
Substance is not listed.
· **15.2 Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** *Quality Unit & Regulatory Affairs*
· **Contact:** *Dr. Sabine Gehre*