



L-VALINE PLANT CULTURE TESTED

CAS No. 72-18-4

Safety Data Sheet

Reference number: PCT0822

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product form : Powder
 Trade name : L-Valine Plant Culture Tested
 Product code : PCT0822
 CAS No : 72-18-4
 Synonyms : 2-Amino-3-methyl butanoic acid, (S)-a-Aminoisovaleric acid

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet

Company : Auraiya Laboratory Chemicals (P) Ltd
 118 Vijay Nagar Etawah
 Etawah -206001 (U.P.)
 INDIA

 Telephone : +91 879 151 1893
 Email : info@auraiyalabchem.com
 Website : www.auraiyalabchem.com

1.4 Emergency telephone number

Emergency Phone # : +91 879 151 1893 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008

2.2 Label elements

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Formula : $C_5H_{11}NO_2$
 Molecular weight : 117.15 g/mol
 CAS-No. : 72-18-4
 EC-No. : 200-773-6

No components need to be disclosed according to the applicable regulations.

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

Carbon oxides, Nitrogen oxides (NO_x)

5.2 Special hazards arising from the substance or mixture

Wear self-contained breathing apparatus for firefighting if necessary.

5.3 Advice for firefighters

Special protective equipment for firefighters

In the event of fire, wear self-contained breathing apparatus.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapours, mist or gas.

For personal protection see section 8.

6.2 Environmental precautions

No special environmental precautions required.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Storage class (TRGS 510): Combustible Solids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance le (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

No special environmental precautions required.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- | | |
|---|------------------------------------|
| a) Appearance | Form: Crystalline
Colour: White |
| b) Odour | Odourless |
| c) Odour Threshold | No data available |
| d) pH | No data available |
| e) Melting point/freezing point | Melting point/range: 295 - 300 °C |
| f) Initial boiling point and boiling range | No data available |
| g) Flash point | No data available |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | No data available |
| j) Upper/lower flammability or explosive limits | No data available |

k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	88.5 g/l at 25°C – completely soluble
o) Partition coefficient: n-octanol/water	log Pow: -2.259 at 20°C
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx)

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - female - > 2,000 mg/kg(L-Valine) (OECD Test Guideline 423)

LC50 Inhalation - Rat - male and female - 4 h - > 5,260 mg/m3(L-Valine) (OECD Test Guideline 403)

LD50 Intraperitoneal - Rat - 5,390 mg/kg(L-Valine)

Remarks: Behavioral: Muscle contraction or spasticity. Lungs, Thorax, or Respiration: Dyspnea. Nutritional and Gross Metabolic: Changes in: Body temperature decrease.

Skin corrosion/irritation

Skin – Rabbit (L-Valine) Result: No skin irritation - 4 h (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes – Rabbit (L-Valine) Result: No eye irritation - 1 h (OECD Test Guideline 405)

Respiratory or skin sensitization

- Mouse (L-Valine) Result: Does not cause skin sensitisation. (OECD Test Guideline 429)

Germ cell mutagenicity

Mouse (L-Valine) lymphocyte

Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available (L-Valine)

Specific target organ toxicity - single exposure

No data available (L-Valine)

Specific target organ toxicity - repeated exposure

No data available (L-Valine)

Aspiration hazard

No data available (L-Valine)

Additional Information

Repeated dose toxicity - Rat - female - Oral - No observed adverse effect level - 666 mg/kg(L-Valine)

RTECS: YV9361000

The levorotary (l) forms of leucine, isoleucine, and valine have been found to have tumor-promoting activity for bladder carcinomas, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. (L-Valine)

SECTION 12: Ecological information**12.1 Toxicity**

Toxicity to fish semi-static test LC50 - Danio rerio (zebra fish) - > 10 g/l - 96 h(L-Valine)
(OECD Test Guideline 203)

Toxicity to daphnia and Immobilization EC50 - Daphnia magna (Water flea) - > 10 g/l - 24 h(L-Valine)
other aquatic (OECD Test Guideline 202)
Invertebrates

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d (L-Valine)
Result: 82 % - Readily biodegradable (OECD Test Guideline 301F)

12.3 Bio accumulative potential

No data available (L-Valine)

12.4 Mobility in soil

No data available (Uric acid)

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations**13.1 Waste treatment****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

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

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information.

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Auraiya Laboratory Chemicals (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.auraiyalabchem.com for additional terms and conditions of sale.