

L-Proline**DOC0(174-177)****SECTION 1 Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Identification of the product : Raw material
Product code : DOC0(174-177)
Trade name : L-Proline
CAS number : 0000147-85-3

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

1.2.1 Relevant identified uses For research purposes only
1.2.2 Uses advised against No additional information available

1.3. Details of the supplier of the safety data sheet

Company identification : Formedium Ltd.
Unit 1B Hunstanton Commercial Park
Norfolk PE365JQ
Tel: +44(0)1485 609069
Fax: +44(0)1485 600510
E-mail:info@formedium.com

1.4. Emergency telephone number

Emergency telephone number : Tel: +44(0)1485 609069 (local time : 9.00 to 17.00)
National Poison Information Centre :Europe UK : +44 0845 4647 (this service is only available to health professionals)
See www.toxbase.org for a local poison centre

SECTION 2 Hazards identification**2.1. Classification of the substance or mixture**

:
Classification according to Regulation (EC) 1272/2008

Not regulated

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008**

Hazards pictograms code : None
Precautionary statements : None

2.3 Other hazards

None under normal conditions.

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L-Proline**DOC0(174-177)****SECTION 3 Composition/information on ingredients****3.1 Substance / Preparation**

Molecular weight g/mol : 115.1
Structural formula: : C5H9NO2

| Substance name: | Contents | CAS No: | EC No: | Annex No: | Ref REACH | Classification |
|-----------------|----------|----------|-----------|-----------|-----------|----------------|
| L-Proline | > 99 % | 147-85-3 | 205-702-2 | -- | -- | -- |

SECTION 4 First aid measures**4.1. Description of first aid measures**

General information : Seek medical attention if ill effects develop.

Inhalation : Remove victim to fresh air.

Skin contact : Wash skin with mild soap and water.

Eye contact : Rinse with water.

Ingestion : Rinse mouth.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms and effects, both acute and delayed. : No data available

4.3. Indication of any immediate medical attention and special treatment needed

Medical attention and special treatment needed. : No data available.

SECTION 5 Fire-fighting measures**5.1. Extinguishing media**

Suitable extinguishing media : Water spray, Carbon dioxide (CO2) or Dry powder.

5.2. Special hazards arising from the substance or mixture

When heated to decomposition, emits toxic fumes. Cox Nox

5.3. Advice for firefighters

Protection against fire : Wear proper protective equipment.

Special procedures : Avoid (reject) fire fighting water to enter environment.

L-Proline**DOC0(174-177)****SECTION 6 Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Wear suitable protective equipment

6.2 . Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Sweep up dry powder and dispose properly.

6.4. Reference to other sections

For disposal see section 13.

SECTION 7 Handling and storage**7.1. Precautions for safe handling**

Store in a dry, well ventilated area.

7.2. Conditions for safe storage, including any incompatibilities

Store at room temperature.

Keep container tightly closed and dry.

7.3. Specific end use(s)

For research purposes only

SECTION 8 Exposure controls/personal protection**8.1. Control parameters****8.2. Exposure controls**

- | | |
|---------------------------------|--|
| - Eye protection | : Chemical goggles or safety glasses. |
| - Skin protection | : Wear suitable protective clothing. |
| - Hand protection | : Gloves |
| - Respiratory protection | : Where excessive dust may result, wear approved mask. |

SECTION 9 Physical and chemical properties

- **Appearance**

Appearance : Powder

Colour : White

- **Odour**

Odour : Amine-like

L-Proline

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SECTION 9 Physical and chemical properties (continued)

| | |
|---|--|
| • <u>Odour threshold</u> Odour threshold | : Not established. |
| • <u>pH</u> pH value | : 6 – 7 |
| • <u>Melting point / Freezing point</u> Melting point (°C) | : 214 – 217 |
| • <u>Initial boiling point – boiling range</u> Boiling point (°C) | : No data available. |
| • <u>Flash point</u> Flash point (°C) | : No data available. |
| • <u>Evaporation rate</u> Evaporation rate (ether =1) | : No data available. |
| • <u>Flammability</u> Flammability range (vol % in air) | : No data available. |
| • <u>Explosion limits (lower – upper)</u> Explosion limits | : No data available. |
| • <u>Vapour pressure</u> Vapour pressure | : No data available. |
| • <u>Vapour density</u> Relative vapour density (air=1) | : No data available. |
| • <u>Relative density</u> Density Bulk density | : 1.35 – 1.38 g/cm3 : circa 500 kg/m3 |
| • <u>Solubility</u> Solubility in water | : 1623 g/L |
| • <u>Partition coefficient : n-octanol / water</u> Log P octanol / water at 20°C | : - 2.54 |
| • <u>Auto-ignition temperature</u> Auto-ignition temperature (°C) | : No data available. |
| • <u>Thermal decomposition</u> Thermal decomposition (°C) | : 185 |
| • <u>Viscosity</u> Viscosity | : No data available. |
| • <u>Explosive properties</u> Explosive properties | : Not established. |
| • <u>Oxidising properties</u> Oxidising properties | : Not established. |

9.2 Other information

L-Proline**DOC0(174-177)****SECTION 10 Stability and reactivity****10.1. Reactivity**

Stable under normal conditions.

10.2. Chemical stability**Stability**

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid**Conditions to avoid**Heat.
Moisture.**10.5. Incompatible materials**

Oxidizing agent.

10.6. Hazardous decomposition products

Hazardous decomposition products

: May liberate toxic gases.

SECTION 11 Toxicological information**11.1. Information on toxicological effects**

- Inhalation : May cause irritation to the respiratory tract.
- Dermal : May cause skin irritation.
- Ocular : May cause eye irritation.
- Rat oral LD50 (mg/Kg) : > 5110

L-Proline**DOC0(174-177)****SECTION 12 Ecological information****12.1. Toxicity**

No data available.

12.2. Persistence - degradability

Biodegradable.

12.3. Bioaccumulative potentialBioaccumulation 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**Environmental precautions** : Prevent entry to sewers and public waters.
Avoid release to the environment.**12.7. Endocrine disrupting properties**

The Substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 13 Disposal considerations**13.1. Waste treatment methods****Special precautions** This product is not hazardous.
Dispose in a safe manner in accordance with local / national regulations.**SECTION 14 Transport information****14.1. UN Number**

Not applicable.

General information : Not classified as dangerous in the meaning of transport regulations.**14.2. UN Proper shipping name**

Not applicable.

14.3. Transport Hazard Class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Not applicable.

14.6. Special precautions for user

Not applicable

L-Proline**DOC0(174-177)****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. 2015/830.

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. Formedium Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.

Revision

: Complete SDS revision

End of document