

L-Glutamic acid**DOC0(134-137)****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(134-137)
Trade name : L-Glutamic acid
CAS number : 000056-86-0

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.
King's Lynn, England, PE31 6DJ
Tel: +44(0)1485 609069
Web: www.Formedium.com
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)
NHS Direct 111 (UK, 24 hours), 112 (EU, 24 Hours)

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.

L-Glutamic acid**DOC0(134-137)****SECTION 3 Composition/information on ingredients****3.1. Substance / Preparation**

Molecular weight g/mol : 147.1
Structural formula: : C5H9NO4

Substance name:	Contents	CAS No:	EC No:	Annex No:	Ref REACH	Classification
L-Glutamic acid	> 98.5 %	56-86-0	200-293-7	--	--	--

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

- Inhalation** : Get medical advice if you feel unwell.
Remove victim to fresh air.
- Skin contact** : Seek medical attention if ill effects develop.
Flush with plenty of water.
- Eye contact** : Rinse with water.
Seek medical attention if ill effect or irritation develops.
- Ingestion** : Seek medical attention if ill effects develop.
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 : Alcohol foam, Water spray, Carbon dioxide (CO2) or Dry powder.

5.2. Special hazards arising from the substance or mixture

Under fire conditions, hazardous fumes will be present. 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-Glutamic acid**DOC0(134-137)****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 protected from light.

7.3. Specific end use(s)

For research purposes only

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

Components with workplace control parameters: Contains no substances with occupational exposure limit values.

8.2. Exposure controls

- | | |
|---------------------------------|---|
| - Eye protection | : Safety glasses. |
| - Skin protection | : Wear suitable protective clothing. |
| - Hand protection | : In cases of repeated or prolonged exposure wear gloves. |
| - Respiratory protection | : Where excessive dust may result, wear approved mask. |

SECTION 9 Physical and chemical properties**• Appearance**

Appearance : Crystals, powder.

Colour : White

• Odour

Odour : Characteristic

L-Glutamic acid**DOC0(134-137)****SECTION 9 Physical and chemical properties (continued)**

- Odour threshold
Odour threshold : Not established.
- pH
pH value : 3 – 3.5
- Melting point / Freezing point
Melting point (°C) : > 200
- Initial boiling point – boiling range
Boiling point (°C) : No data available.
- Flash point
Flash point (°C) : No data available.
- Evaporation rate
Evaporation rate (ether =1) : No data available.
- Flammability
Flammability range (vol % in air) : No data available.
- Explosion limits (lower – upper)
Explosion limits : No data available.
- Vapour pressure
Vapour pressure : No data available.
- Vapour density
Relative vapour density (air=1) : No data available.
- Relative density
Relative Density : No data available.
- Solubility
Solubility in water : 8.64 – 11.1 g/L
- Partition coefficient : n-octanol / water
Log P octanol / water at 20°C : - 3.69
- Auto-ignition temperature
Auto-ignition temperature (°C) : > 640
- Thermal decomposition
Thermal decomposition (°C) : No data available.
- Viscosity
Viscosity : No data available.
- Explosive properties
Explosive properties : Not established.
- Oxidising properties
Oxidising properties : Not established.

9.2. Other information

No data available.

L-Glutamic acid**DOC0(134-137)****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**

: None.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products**Hazardous decomposition products**

: When heated to decomposition, emits dangerous fumes.

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

: Inhalation of dust may cause respiratory irritation.

- Dermal

: Not expected to be an irritant.

- Ocular

: Not expected to be an irritant.

Rat oral LD50 (mg/Kg)

: > 30000

11.2. Additional Information**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.

Environmental precautions: Prevent entry to sewers and public waters.
Avoid release to the environment.

L-Glutamic acid**DOC0(134-137)****SECTION 12 Ecological information****12.1. Toxicity**

No data available.

12.2. Persistence - degradability

No data available.

12.3. Bioaccumulative potentialBioaccumulation potential :
None under normal conditions.**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. U N 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-Glutamic acid**DOC0(134-137)****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