



Tradename: L-Glutamic acid

Print Date: 6. January 2021

Version: 1.2, revision date: 02.01.2021

Replaced version: 1.1 created on: 27.09.2019

Region: EN

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

1.1. Product identifier

Product name / Trade name

L-Glutamic acid

CAS Number: 56-86-0
EC number: 200-293-7
Registration number: No information available.

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

Application of the substance / the mixture

Manufacture of substances

Uses advised against

No further relevant information available.

1.3. Details of the supplier of the safety data sheet

Company

SysKem Chemie GmbH
Brucknerweg 26
D-42289 Wuppertal

Telephone +49 (0) 202/30999510
Telefax +49 (0) 202/87088403
E-mail address info@syskem.de

Prepared by / E-mail address of person responsible for the SDS

info@syskem.de

1.4. Emergency telephone number

Vergiftungs-Informations-Zentrale Freiburg, Tel. +49 761 19240.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

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

2.2. Label elements

Labelling (REGULATION (EC) No 1272/2008)

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

2.3. Other hazards

None.



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SECTION 3: Composition/information on ingredients

3.1. Substances

L-Glutamic acid

CAS Number: 56-86-0
EC number: 200-293-7

Formula C₅H₉NO₄
Molecular weight 147.13 g/mol

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

3.2. Mixtures

Not applicable

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.

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

Water with full jet

5.2. Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO_x)



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5.3. Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

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

Do not let product enter drains.

6.3. Methods and material 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

No data available

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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.



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Full contact

Material: Nitrile rubber
 Minimum layer thickness: 0.11 mm
 Break through time: 480 min

Splash contact

Material: Nitrile rubber
 Minimum layer thickness: 0.11 mm
 Break through time: 480 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industria situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

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

Do not let product enter drains.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

General Information

Appearance:

Form : crystalline
 Colour : white
 Odour : No data available
 Odour threshold : No data available

PH-value : No data available

Change in condition

Meltig point /Melting range : 205 °C - dec.
 Initial boiling point and boiling range : No data available
 Pour point : No data available
 Flash point : No data available

Flammability (solid, gas) : The product is not flammable. - Flammability (solids)

Decomposition temperature : No data available

Auto-ignition temperature : not auto-flammable

Explosive properties : Not explosive

Explosion limits

Lower : No data available

Upper : No data available

Oxidising properties : The product has been shown not to be oxidizing in a test following Directive 67/548/EEC (Method A17, Oxidizing properties).

Vapour pressure at 20 °C : No data available

Relative density : 1.54 g/cm³ at 20 °C

Vapour density : No data available

SAFETY DATA SHEET



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Evaporation rate	: No data available
Solubility in / Miscibility with water	: 8.64 g/l at 25 °C - soluble
Partition coefficient n-octanol/water (log P)	: log Pow: < -4 at 20 °C
Viscosity	
Dynamic	: No data available
Kinematic	: No data available

9.2. Other information

Surface tension : 74.2 mN/m at 20 °C

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 - male and female - > 5,110 mg/kg(Glutamic acid)
LD50 Dermal - Rat - male and female - > 2,000 mg/kg(Glutamic acid)
(OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit(Glutamic acid)
Result: No skin irritation - 4 h
(Directive 67/548/EEC, Annex V, B.4.)

Serious eye damage/eye irritation

Eyes - Rabbit(Glutamic acid)
Result: No eye irritation - 72 h
(OECD Test Guideline 405)



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Respiratory or skin sensitisation

Maximisation Test - Guinea pig(Glutamic acid)

Result: Does not cause skin sensitisation.

(Directive 67/548/EEC, Annex V, B.6.)

Germ cell mutagenicity

No data available(Glutamic acid)

Ames test(Glutamic acid)

S. typhimurium

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(Glutamic acid)

STOT - single exposure

No data available(Glutamic acid)

STOT - repeated exposure

No data available(Glutamic acid)

Aspiration toxicity

No data available(Glutamic acid)

Additional information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(Glutamic acid)

SECTION 12: Ecological information**12.1 Toxicity****Toxicity to fish**

static test LC50 - Cyprinus carpio (Carp) - > 100 mg/l - 96 h(Glutamic acid)

(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h(Glutamic acid)

Toxicity to algae

static test EC50 - Pseudokirchneriella subcapitata (green algae) - > 31 mg/l - 72 h(Glutamic acid)

(OECD Test Guideline 201)

12.2 Persistence and degradability**Biodegradability**

aerobic - Exposure time 28 d(Glutamic acid)

Result: 97 % - Readily biodegradable

12.3 Bioaccumulative potential

No data available



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12.4 Mobility in soil

No data available(Glutamic acid)

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.



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SECTION 15: Regulatory information

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

This safety datasheet 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

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

Product Safety

Reasons for changes

Section 1

Abbreviations and acronyms

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

NOAEL: No observed adverse effect level

NOAEC: No observed adverse effect concentration

LOAEL: Lowest observed adverse effect level

LOAEC: Lowest observed adverse effect concentration

NOEL: No observed effect level

NOEC: No observed effect concentration

LOEC: Lowest observed effect concentration

BCF: Bio concentration factor

EC50: Effect concentration, 50 percent