

Safety Data Sheet L-Glutamic Acid

Section 1 - Chemical Product and Company Identification

1.1 Product Identifiers

Product Name: L-Glutamic Acid

Catalog Numbers:

CAS #. : 56-86-0

EC#: 200-293-7

RTECS#: LZ9700000

1.2 Recommended Use of the Chemical and restrictions of Use

Chemical manufacturing

1.3 Supplier Details

BioSpectra, Inc.
100 Majestic Way
Bangor, Pa 18013
610.599.3400

1.4 Emergency Numbers

US & Canada: 1-800-424-9300

Outside the US & Canada: +1 703-527-3887

Section 2 – Hazard Identification

2.1 Classification of Substance or Mixture

Not a hazardous substance or mixture

2.2 GHS Label Elements Including Precautionary Statements

Not a hazardous substance or mixture

2.3 Hazards not Classified or not Covered by the GHS

Section 3 - Composition, Information on Ingredients

Component	Classification	Concentration
L-Glutamic Acid	NA	>98.5%

Synonyms: Glu, (S)-2-Aminopentanedioic acid

Formula: C₅H₉NO₄

Molecular Weight: 147.13 g/mol

Section 4 – First Aid Measures

4.1 Description of necessary first aid measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately.

Skin: Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: DO NOT induce vomiting unless instructed to do so by a medical professional. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician: Treat symptomatically and supportively.

4.2 Most Important symptoms/effects, acute and delayed

Refer to Section 2.2 for Precautionary Statements if any are applicable

4.3 Indication of Immediate Medical Attention and Special Treatment

No information available

Section 5 - Firefighting Measures

5.1 Extinguishing Media

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

5.2 Specific Hazards Associated with this Chemical

Carbon oxides, nitrogen oxides (NO_x)

5.3 Special Equipment/Precautions for Firefighters

May be combustible at high temperatures. As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source. In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Explosion will appear as fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

5.4 Other information

None available

Section 6 - Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Avoid dust formation. Avoid breathing vapours, mist or gas. Use proper personal protective equipment as indicated in Section 8.

6.2 Environmental Precautions

Do not allow to enter drains

6.3 Methods and Materials for Containment and Cleaning Up

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions.

6.4 Other information

None available

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Use with adequate ventilation. Avoid dust formation as it may result in potential for combustible dust formation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

7.2 Conditions for Storage Including any Incompatibilities

Store in a dry, well-ventilated area away from incompatible substances. Keep containers tightly closed.

7.3 Other information

Not available.

Section 8 - Exposure Controls, Personal Protection

8.1 Control parameters

Chemical does not contain any substances with occupational exposure limits

8.2 Engineering controls

Use adequate ventilation to keep airborne concentrations low.

8.3 Personal protective equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure. Wear impervious gloves: Nitrile rubber with layer thickness 0.11mm.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Where protection from nuisance levels of dusts are desired, use type N95

(US) or type P1 (EN 143) dust masks. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Solid	Melting Point: 205 °C
Appearance: White/crystalline	Boiling Point: Not available
Odor: Not available	Decomposition Temperature: Not available
pH: Not available	Specific Gravity/Density: 1.54 g/cm ³ at 20°C
Vapor Pressure: Not available	Solubility: 8.64 g/L at 25°C

Vapor Density: Not available	Molecular Formula: C ₅ H ₉ NO ₄
Viscosity: Not available	Molecular Weight: 147.13 g/mol

Other safety information

Surface tension 74.2 mN/m at 20 °C

Section 10 - Stability and Reactivity

10.1 Chemical Stability: Stable under normal temperatures and pressures.

10.2 Conditions to Avoid: No information available.

10.3 Incompatibilities with Other Materials: Strong oxidizing agents

10.4 Hazardous Decomposition Products: No information available.

10.5 Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

11.1 Toxicological effects

Acute Toxicity

LD50: Oral - rat - male and female: > 5,110 mg/kg

LD50: Dermal - rat - male and female: > 2,000 mg/kg
(OECD Test Guideline 402)

Skin corrosion/irritation

Skin: rabbit

Result: No skin irritation - 4 h

(Directive 67/548/EEC, Annex V, B.4.)

Serious eye damage/eye irritation

Eyes: rabbit

Result: No eye irritation - 72 h

(OECD Test Guideline 405)

Respiratory or skin sensitisation

Maximisation Test: guinea pig

Result: Does not cause skin sensitisation.

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

Germ cell mutagenicity

no data available

Ames test

S. typhimurium

Result: negative

Carcinogenicity:

CAS# 56-86-0: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Neurotoxicity: No information available.

Mutagenicity: No information available.

Other Studies: No information available.

11.2 Additional information

RTECS#: LZ9700000

To the best of our knowledge the associated physical, chemical and toxicological properties of this chemical have not undergone thorough investigation, all known information is contained in this SDS.

Section 12 - Ecological Information

12.1 Ecotoxicity

Toxicity to fish static test LC50: *Cyprinus carpio* (Carp): > 100 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates static test EC50: *Daphnia magna* (Water flea): > 100 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae static test EC50: *Pseudokirchneriella subcapitata* (green algae): > 31 mg/l - 72 h (OECD Test Guideline 201)

12.2 Persistence and degradability

Biodegradability: aerobic - Exposure time 28 d, result: 97 % readily biodegradable

12.3 Bioaccumulative Potential

No information available

12.4 Mobility in Soil

No information available

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 information available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	No Information Available	No Information Available	No Information Available	No Information Available	No information available.
Hazard Class:					
UN Number:					
Packing Group:					

Section 15 – Regulatory Information

15.1 EHS Chemical Specific Regulations SARA

Section 302 (TPQ): None of the chemicals in this product have a TPQ.

Section 313: No chemicals are reportable under Section 313.

SARA 311/312 Hazards: No SARA Hazards

STATE:

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Glutamic Acid CAS-No. 56-86-0

New Jersey Right To Know Components

Glutamic Acid CAS-No. 56-86-0

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Section 16 - Additional Information

16.1 Hazard Ratings

HMIS Rating

Health hazard: 0

Flammability: 0

Physical Hazard: 0

NFPA Rating

Health hazard: 0

Fire Hazard: 0

Reactivity Hazard: 0

The information conveyed in this Safety Data Sheet is only a representation of what BioSpectra has found to be accurate based on the current information that is available in regards to this compound. BioSpectra makes no warranty, expressed or implied, with respect to such information, and therefore assumes no liability resulting from product usage. It is strongly recommended that users of this product perform their own investigations to determine the accuracy and suitability of the information for their specific purposes. In no way will BioSpectra assume liability for any claims, losses, damages to any third party, any lost profits or any special, indirect, incidental, consequential or exemplary damages that may arise, even if BioSpectra has been advised of the possibility of such damages.