

**SECTION 1 - Chemical Product and Company Identification****1.1 Product Identifiers**

Product Name : L-Glutamine
 CAS # : 56-85-9
 EC# : 200-292-1
 RTECS# : MA2275100

1.2 Recommended Use of the Chemical and Restrictions of Use

Chemical manufacturing

1.3 Supplier Details

Supplier : BioSpectra, Inc.
 100 Majestic Way
 Bangor, Pa 18013
 T: 610.599.3400
ehs@biospectra.us

1.4 Emergency Numbers

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

None

SECTION 3 – Composition, Information on Ingredients

Component	Classification	Concentration
L-Glutamine	NA	98.5%

Synonyms : (S)-2,5-Diamino-5-oxopentanoic acid, L-Glutamic acid 5-amide
 Molecular Formula : C₅H₁₀N₂O₃
 Molecular Weight : 146.14 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 (NOx)

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. Take into consideration the avoidance of formation of combustible dust before processing. Avoid contact with eyes, skin, and clothing. 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

None 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
Appearance	: White
Odor	: Not available
pH	: 4.0-6 at 14.6 g/L at 25 ° C
Vapor Pressure	: Not available
Vapor Density	: Not available
Viscosity	: Not available
Melting Point	: 185 ° C
Boiling Point	: Not available
Decomposition Temperature	: Not available
Specific Gravity/Density	: Not available
Solubility	: 14.6 g/L at 20 ° C
Molecular Formula	: C ₅ H ₁₀ N ₂ O ₃
Molecular Weight	: 146.14 g/mol

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 : 7,500 mg/kg

Carcinogenicity:

CAS# 56-85-9 : 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# : MA2275100

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**

No information available.

12.2 Persistence and Degradability

No information available.

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.

SPECIFIC STATE:

Massachusetts Right To Know Components : No components are subject to the Massachusetts Right to Know Act.
 Pennsylvania Right To Know Components : L-Glutamine CAS-No. 56-85-9
 New Jersey Right To Know Components : L-Glutamine CAS-No. 56-85-9
 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.