



## 1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: L-Glutamine  
PRODUCT NUMBER: G229  
COMPANY INFO: PhytoTech Labs Inc.  
14610 W 106<sup>th</sup> St. Lenexa, KS 66215  
Phone: 1-888-749-8682 or 1-913-341-5343  
www.phytotechlab.com

EMERGENCY PHONE NUMBER 1-800-535-5053 - US Only  
(INFOTRAC): 1-352-323-3500 - International

RECOMMENDED USE: For Laboratory-use or Further Manufacture only

RESTRICTIONS ON USE: Products sold by PhytoTech Labs Inc. are intended for research and laboratory use only. Products are not to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, in vitro diagnostics, or as household chemicals.

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture:

Not a hazardous substance or mixture.

### GHS Label elements, including hazard and precautionary statements:

Not a hazardous substance or mixture.

Hazards not otherwise classified (HNOC) or not covered by GHS - None

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: (S)-2,5-Diamino-5-oxopentanoic Acid  
CAS No.: 56-85-9  
Formula: C<sub>5</sub>H<sub>10</sub>N<sub>2</sub>O<sub>3</sub>  
Molecular Weight: 146.14 g/mol  
EC No.: 200-292-1

Ingredient	CAS Number	Percent	Hazardous
L-Glutamine	56-85-9	>98 %	No exposure limits established by OSHA or ACGIH

## 4. FIRST AID MEASURES

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Route of Entry	Symptoms	First Aid Procedures
Ingestion	May cause irritation if swallowed	If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. <b>Get medical attention.</b>
Inhalation	May cause irritation to respiratory tract	Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. <b>Get medical attention.</b>

Eye Contact	Direct contact may cause irritation. May cause redness, tearing, or blurred vision.	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. <b>Get medical attention if irritation persists.</b>
Skin Contact	Irritating. May cause reddening, itching or inflammation.	Wash area thoroughly with soap and water. Remove and wash contaminated clothing. <b>Get medical attention if irritation persists.</b>

Most Important Symptoms or Effects, Both Acute and Delayed:

See section 2 and/or section 11

Recommendation for Immediate Medical Care and Special Treatment Needed:

No data available

## 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.
Special Protective Equipment and Precaution for Firefighters:	In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. Evacuate the area and fight fire from a safe distance.
Hazardous Combustion Products:	May emit toxic fumes under fire conditions.
Toxic Gases Produced:	Carbon dioxide, carbon monoxide, nitrogen oxides

## 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protection recommended in Section 8. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Method of Containment and Cleanup:	Wear suitable protective clothing. Avoid dust formation. Carefully sweep up and remove. Place material in a dry container and cover. Remove from the area. Flush spill area with water. Do not let products enter drains.

## 7. HANDLING AND STORAGE

Precaution for Safe Handling:	Avoid contact with skin and eyes. Avoid dust formation and aerosols. Avoid incompatible substances. Wash thoroughly after use.
Conditions for Safe Storage:	Keep in a tightly closed container and store in a cool, dry, and well-ventilated area.
Incompatibilities:	Strong oxidizing agent
Recommended Storage Temperature:	Room Temperature

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA's Permissible Exposure Limits (PELs):	None
Threshold Limit Values (TLVs):	None
Engineering Controls:	Handle in accordance to general industrial hygiene and safety practice.
Personal Protective Equipment (PPE):	
Eye/Face Protection:	Chemical safety glasses or goggles. Have eye-washing facilities readily available where eye contact can occur.
Skin Protection:	Protective gloves
Body Protection:	Lab coat

Respiratory Protection: Respiratory protection is not required.  
Use N95 (US) or type P1 (EN 143) dust mask where dust level is nuisance.  
A NIOSH/MSHA approved air purifying respirator is recommended where airborne concentrations are expected to exceed exposure limits. Protection provided by purifying respirators is limited.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White to off-white powder  
pH: No data available  
Solubility: Soluble in Water  
Melting Point: 185-186°C  
Vapor Density: No data available  
Vapor Pressure: No data available  
Odor: Odorless  
Odor Threshold: No data available  
Viscosity: No data available  
Relative Density: No data available  
Evaporation Rate: No data available  
Initial Boiling Point and Boiling Range: No data available  
Flammability (solid, gas): No data available  
Partition coefficient: log Pow: -4.609  
n-octanol/water):  
Auto-ignition Temperature: No data available  
Decomposition Temperature: No data available  
Flash Point (Closed Cup): No data available  
Flammable Limits: Upper (%) – No data available Lower (%) – No data available

## 10. STABILITY AND REACTIVITY

Reactivity: No data available  
Chemical Stability: Stable under normal conditions of use  
Possibility of Hazard Reactions: No data available  
Conditions to Avoid: No data available  
Incompatibles Materials: Strong oxidizing agents  
Hazardous Decomposition Products: Carbon dioxide, carbon monoxide, nitrogen oxides

## 11. TOXICOLOGICAL INFORMATION

Toxicity: LD<sub>50</sub> (Oral-Rat)(mg/Kg): 7500  
LD<sub>50</sub> (IP-Rat)(mg/Kg): No data available  
LD<sub>50</sub> (Dermal-Rabbit)(mg/Kg): No data available  
Carcinogenicity: NTP: No  
IARC: No  
OSHA Reg: No  
Reproductive Toxicity: No data available  
Specific Target Organ Toxicity: Single Exposure: No data available

Repeated Exposure: No data available

Target Organs: None identified

Medical Conditions: None identified

Aggravated By Exposure:

Routes of Entry: Inhalation, ingestion, skin and eye contact

NIOSH/RTECS NO: MA2275100

***The toxicological properties of this product have not been thoroughly investigated***

## 12. ECOLOGICAL INFORMATION

Ecotoxicity: No data available

Persistence and Degradability: No data available

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: No data available

## 13. DISPOSAL CONSIDERATION

Disposal Procedure: Dispose in accordance with all applicable federal, state, and local environmental regulations.

## 14. TRANSPORT INFORMATION

Domestic (D.O.T.): Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)

Hazard Class: N/A

UN/NA: N/A

Labels: N/A

International:

IMDG: Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)

Hazard Class: N/A

UN/NA: N/A

Labels: N/A

IATA: Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)

Hazard Class: N/A

UN/NA: N/A

Labels: N/A

## 15. REGULATORY INFORMATION

TSCA: Yes

SARA TITLE III:

Section 302 (EHS) Ingredients: No

Section 313 Ingredients: No

Section 304 (EHS/CERCLA) Ingredients: No

Section 311/312 Hazard: No

Massachusetts Right to Know Components: Not subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components: Not subject to the Pennsylvania Right to Know Act.  
 New Jersey Right to Know Components: Not subject to the New Jersey Right to Know Act.  
 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.

**16. OTHER INFORMATION**

<b>HMIS Rating:</b>	<b>Health Hazard</b>	<b>Flammability</b>	<b>Physical Hazard</b>	<b>Personal Protection</b>
	0	0	0	B
<b>NFPA Rating:</b>	<b>Health Hazard</b>	<b>Fire Hazard</b>	<b>Instability</b>	<b>Special Hazard</b>
	0	0	0	

**PhytoTech Labs Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. The above information is intended to be used only as a guide to the appropriate precautionary handling of this material by a properly trained person. PhytoTech Labs Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. This product is intended for LABORATORY OR FURTHER MANUFACTURING USE ONLY. Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticidal products, food additives or as household chemicals.**

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