

Certificate of Analysis

Product Name:	L-Glutamine
CAS#	56-85-9
Molecular Formula:	C₅H₁₀N₂O₃
Molecular Weight:	146.15
Carrier:	None
Country of Origin:	China
Batch Number:	Varies
Manufacture Date:	Varies
Retest Date:	Varies

Test Results Obtained by PureBulk

ITEMS	SPECIFICATIONS	RESULTS
L-Glutamine (HPLC)	≥98.5%	100.10%
Arsenic	≤1 mg/kg	<0.0100 ppm
Cadmium	≤1 mg/kg	<0.00500 ppm
Lead	≤3 mg/kg	<0.00500 ppm
Mercury	≤0.1 mg/kg	<0.00500 ppm
Aerobic Plate Count	≤1000 cfu/g	40 cfu/g
Coliforms	≤10 cfu/g	<20 cfu/g
<i>E. Coli</i>	Negative	Absent
<i>Staph aureus</i>	Negative	Absent
Yeast & Mold	≤100 cfu/g	<20 cfu/g
Salmonella	Negative	Absent
<i>Pseudo. aeruginosa</i>	Negative	Absent
Conclusion (PureBulk):	This product conforms to standards	

The following information is an indirect translation of information provided from the Manufacturer's Certificate of Analysis, and should not be used solely as an instrument for strict quality control.

ITEMS	SPECIFICATIONS	RESULTS
Appearance	Crystalline Powder	Conforms
Color	Whitish	Conforms
Aroma	None	Conforms
Flavor	Slightly Sweet	Conforms
Identification	Infrared Absorption	Conforms
Mesh Size	≥95% pass 120 Mesh	Conforms
Bulk Density	≥0.58 g/ml	0.60 g/ml
Transmittance	≥98.0%	99.4%
Specific Rotation {α}D ₂₀ [°] CHCL Solution	+6.30-+7.30	+6.8
Loss on Drying	≤0.3%	0.08%
Ignited Residue	≤0.1%	0.05%
Conclusion (Manufacturer):	This product conforms to enterprise FCCX standards	

Additional Information:	Non-Allergen Vegetarian/Vegan BSE/TSE Free
GMO Statement	Non-GMO
Storage Conditions:	Keep in sealed container under 25°C. Keep away from strong light, heat and moisture.

Purebulk.Inc verifies that the information contained herein is true and correct to the best of our knowledge.

Verified By: Linda Heatley / Candace Gibson

(This document was produced electronically and is valid without signature.)