

# BIOSPECTRA SOLUTIONS

100 Majestic Way, Bangor, PA 18013 / www.biospectra.us

Effective Date:	20-Jan-2025	20-Jan-2028	: Date of Next Review
Prepared By:	Amy Yenko	Not Applicable	: Supersedes
QA/QC Approval:	Krista Rehrig	Carissa Albert	: Management Approval
Reason for Revision:	See Revision History in MasterControl.		

## CERTIFICATE OF ANALYSIS

### L-GLUTAMINE

### BIOTECH, MEETS USP, GMP

### BIO QUALIFIED GRADE / LGLM-6201

LOT#: LGLM-L02-0225-0002

C<sub>5</sub>H<sub>10</sub>N<sub>2</sub>O<sub>3</sub> \* F.W. 146.14 g/mol. \* CAS# 56-85-9

Retest Date: 10/07/25

Manufacturing Date: 10/08/23

Packaging Site: 100 Majestic Way, Bangor PA, 18013

ANALYSIS	SPECIFICATIONS	RESULT
Appearance and Color	White Crystals or Crystalline Powder	White Powder
Assay, Dried Basis	98.5 – 101.5 %	100.1 %
Chloride	≤ 500 ppm	<500 ppm
Identification A, IR	Conforms to Reference Standard	Conforms to Reference Standard
Iron	≤ 10 ppm	<1.5 ppm
Loss on Drying	≤ 0.3%	<0.3 %
Optical Rotation, Specific Rotation 20°C	+6.3° to +7.3°	+6.8 °
Residue on Ignition	≤ 0.1%	<0.1 %
Related Compounds	≤ 0.5%	<0.5 %
Sulfate	≤ 300 ppm	<300 ppm

COUNTRY OF ORIGIN: India

TEST METHOD REFERENCE: DCN: BSI-ATM-0067

INTENDED USE: Material represented by this Certificate of Analysis is suitable for use as a process chemical. It is GMP manufactured by BioSpectra's approved supplier in accordance with the approved supplier's ISO 9001:2015 certified management system. The material represented by this Certificate of Analysis is not suitable to be used as an Active Pharmaceutical Ingredient, Drug, Drug Product or Household Item.

RETEST DATE: The retest date is obtained from the approved supplier's certificate of analysis.

Prepared by: Car Allent Date: 2/5/25 Job Title: Senior Quality Manager

Reviewed by: John Bigham Date: 2/5/25 Job Title: QA Supervisor