BIOBUFFER SOLUTIONS

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

Effective Date:	4-Apr-2024	4-Apr-2027	: Date of Next Review
Prepared By:	Amy Yencho	BSI-COA-0291 v.1.0	: Supersedes
QA/QC Approval:	Carissa Albert	Wayne Talamonti	: Management Approval
Reason for Revision:	See Revision History in MasterControl.		

CERTIFICATE OF ANALYSIS

L-GLUTAMINE

USP, GMP

BIO PHARMA GRADE / LGLM-4250-93

LOT#: LGLM-0124-00000

$C_5H_{10}N_2O_3$ ⅄ F.W. 146.14 g/mol. ⅄ CAS# 56-85-9

Retest Date: MM/DD/YY

Packaging Date: MM/DD/YY 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%	100.0 %
Chloride	≤ 0.05%	<0.05 %
Identification A, IR	Passes Test	Passes Test
Iron	≤ 10 ppm	<1.5 ppm
Loss on Drying	≤ 0.3%	<0.3 %
Optical Rotation, Specific Rotation 20°C	+6.3° to +7.3°	+6.7°
Residue on Ignition	≤ 0.1%	<0.1 %
Related Compounds	≤ 0.5%	<0.5 %
Sulfate	≤ 0.03%	<0.03 %

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 the 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: Anil McCall Date: 5/16/24 Job Title: QA Tech I

Reviewed by: Jason Bright Date: 5/16/24 Job Title: QA Supervisor