

# **BIOBUFFER SOLUTIONS**

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

Effective Date:	26-Jun-2025	26-Jun-2028	: Date of Next Review
Prepared By:	Taylor Yurick	BSI-COA-0312 v.1.0	: Supersedes
QA/QC Approval:	Jessica DeMaio	Hannah Kuchmas	: Management Approval
Reason for Revision:	See Revision History in MasterControl.		

## CERTIFICATE OF ANALYSIS L-CYSTINE diHCl BIOTECH, LBLE, GMP BIO QUALIFIED GRADE / LCYS-6250 LOT: LCYS-L02-1025-0030

 $C_6H_{12}N_2O_4S_2 \cdot 2HCl$  \* F.W. 313.22 g/mol. \* CAS# 30925-07-6

Retest Date: 10/31/27

Manufacturing Date: 10/01/25

Packaging Site: 100 Majestic Way, Bangor PA, 18013

ANALYSIS	SPECIFICATION	TEST RESULT
Appearance and Color	White to Slightly Yellow Crystalline Powder	Slightly Yellow Crystalline Powder
Assay, Dried Basis	98.0 - 102.0 %	100.1 %
Bioburden	$\leq 100$ CFU/g	$< 10$ CFU/g
Chloride	22.2 - 23.5 %	22.7 %
Endotoxin	$< 0.02$ EU/mg	$< 0.02$ EU/mg
Heavy Metals (Pb)	$< 10$ ppm	$< 0.15$ ppm
Identification, IR	Conforms to Reference Standard	Conforms to Reference Standard
Loss on Drying @ 105°C	$\leq 0.5\%$	0.2 %
pH (0.1% solution)	Report	2.18
Residue on Ignition	$\leq 0.1$ %	$< 0.1$ %
Specific Rotation, Free Basis @ 20°C	-225.0° to -215.0°	-221.9 °
Solubility	Passes Test	Passes Test

COUNTRY OF ORIGIN: IndiaTEST METHOD REFERENCE: DCN: BSI-ATM-0024MANUFACTURING DATE: The manufacturing date is representative of the final packaging date at BioSpectra.

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.

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

Prepared by: David McCall Date: 10/2/25 Job Title: QA Tech III  
Reviewed by: John Bishop Date: 10/2/25 Job Title: QA Supervisor