

BIOBUFFER SOLUTIONS

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

Effective Date:	24-Jun-2025	24-Jun-2028	: Date of Next Review
Prepared By:	Taylor Yurick	BSI-COA-0003 v.4.1	: Supersedes
QA/QC Approval:	Jessica DeMaio	Hannah Kuchmas	: Management Approval
Reason for Revision:	See Revision History in MasterControl.		

CERTIFICATE OF ANALYSIS

GUANIDINE HYDROCHLORIDE

BIO ULTRA GRADE / GHCL-5220

LOT#: GHCL-L03-0326-0014

 $\text{NH}_2\text{C}(\text{NH})\text{NH}_2 \cdot \text{HCl}$ * F.W. 95.53 * CAS#: 50-01-1

Manufacturing Date: 03/28/26 Retest Date: 03/31/27

Packaging Site: 100 Majestic Way, Bangor PA, 18013

ANALYSIS	SPECIFICATION	RESULT
Absorbance	230 nm 260 nm 275 nm	0.3000 a.u. max. 0.0500 a.u. max. 0.0500 a.u. max.
Appearance and Color	White / Crystals	0.0823 a.u. 0.0194 a.u. 0.0117 a.u. White / Crystals
Assay	99.0% min.	100.0%
Identification (IR)	Passes Test	Passes Test
Melting Range	184-188°C	186 – 187°C
pH (6M)	4.5-6.0	5.6
Residue on Ignition	0.05% max.	0.01%
Solubility (6M)	Passes Test	Passes Test

TEST METHOD REFERENCE: DCN: BSI-ATM-0013MANUFACTURING 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. The material represented by this Certificate of Analysis is not suitable to be used as an Excipient, Active Pharmaceutical Ingredient, Drug, Drug Product or Household Item.Prepared by: Shirley McCell Date: 3/30/26 Job Title: QA Tech IIIReviewed by: Jason Bonghan Date: 3/30/26 Job Title: QA Supervisor