

BIOBUFFER SOLUTIONS

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

Effective Date:	22-Jul-2026	22-Jul-2029	: Date of Next Review
Prepared By:	Amy Yenko	Not Applicable	: Supersedes
QA/QC Approval:	Taylor Vazquez	Krista Rehrig	: Management Approval
Reason for Revision:	See Revision History in MasterControl.		

CERTIFICATE OF ANALYSIS

GUANIDINE HYDROCHLORIDE

REAGENT

BIO ULTRA GRADE / GHCL-5223

LOT#: GHCL-L02-0926-0057

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

Manufacturing Date: 10/02/26 Retest Date: 10/31/28

Packaging Site: 100 Majestic Way, Bangor PA, 18013

ANALYSIS	SPECIFICATION	RESULT
Absorbance (6M)	260 nm	< = 0.04 a.u.
	280 nm	< = 0.02 a.u.
Ammonium Chloride		< = 1.0 %
Appearance and Color	White Crystals	Passes Test
Assay, Dried Basis	> = 99.5%	99.8 %
Melting Range	183 - 188°C	186 - 187°C
pH (6M)	4.0 - 6.0	5.6
Residue on Ignition	< = 0.02 %	0.01 %
Solubility (6M)	Passes Test	Passes Test
Water Insoluble Substances	< = 0.02 %	< 0.02 %
Water, KF	< = 0.3 %	0.3 %

TEST METHOD REFERENCE: DCN: BSI-ATM-0013

MANUFACTURING 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: David McCall Date: 10/5/26 Job Title: QA Tech III

Reviewed by: Joan Rehrig Date: 10/6/26 Job Title: QA Supervisor