BIOSPECTRA

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

Effective Date:	21-Apr-2020	21-Apr-2023	: Date of Next Review
Prepared By:	Kyle Snyder	16-000103 v. 4.2	: Supersedes
QA/QC Approval:	Carissa McCollian	Wendy Santay	: Management Approval
Reason for Revision:	See Revision History in ensur.		

CERTIFICATE OF ANALYSIS

GUANIDINE HYDROCHLORIDE

BIO PHARMA GRADE / GH4220-K025

LOT#: GH4220-125-1220

$NH_2C(NH)NH_2 \cdot HCl$ ▲ F.W. 95.53 g/mol. ▲ CAS# 50-01-1

Manufacturing Date: 10/29/20 Retest Date: 10/31/22

Manufacturing Site: 1474 Rockdale Lane, Stroudsburg, PA 18360

Packaging Date: 12/7/20 Packaging Site: 100 Majestic Way, Bangor PA, 18013

ANALYSIS		SPECIFICATIONS	RESULT
Absorbance	275 nm	0.0300 a.u. maximum	0.0056 a.u.
	260 nm	0.0300 a.u. maximum	0.0116 a.u.
	230 nm	0.2000 a.u. maximum	0.1245 a.u.
Appearance and Color		White / Crystals	White / Crystals
Assay		99.5% minimum	99.9%
Enzymes	DNase	None Detected	None Detected
	Protease	None Detected	None Detected
	RNase	None Detected	None Detected
Identification (IR)		Passes Test	Passes Test
Insoluble Matter		0.15% maximum	<0.15%
Loss on Drying		0.5% maximum	<0.5%
Melting Range		184-188°C	185 - 187°C
Nitrate		0.01% maximum	<0.01%
pH (6M)		4.5-6.0	4.9 @ 25.0°C
Residue on Ignition		0.05% maximum	<0.05%
Solubility (6M)		Passes Test	Passes Test
Sulfate		0.01% maximum	<0.01%
Trace Metals	Arsenic (As)	5 ppm maximum	< 5 ppm
	Copper (Cu)	5 ppm maximum	< 5 ppm
	Iron (Fe)	5 ppm maximum	< 5 ppm
	Lead (Pb)	5 ppm maximum	< 5 ppm

COUNTRY OF ORIGIN: U.S.A.

TEST METHOD REFERENCE: 16-000493

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INTENDED USE: Material represented by this Certificate of Analysis is suitable for use as a GMP process chemical. It is manufactured in accordance with the IPEC-PQG Joint Good Manufacturing Practice Guide. 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.

RESIDUAL SOLVENTS STATEMENT: Based on the manufacturing process and the controlled handling, storage and analysis of this product, this product complies with the requirements and specifications listed in the current USP method <467> Tables 1, 2, 3, or 4.

Prepared by: _____ Date: 12/11/20 Job Title: QA Specialist

Reviewed by: _____ Date: 12/11/20 Job Title: QA Supervisor

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