BIOSPECTRA

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

Effective Date:	30-Jan-2017	30-Jan-2020	: Date of Next Review
Prepared By:	Jamie Storm	16-001152 v2.0	: Supersedes
QA/QC Approval:	Crystal Hamelburg	Chad Pezoldt	: Management Approval
Reason for Revision:	See Revision History in ensur		

GUANIDINE THIOCYANATE

CERTIFICATE OF ANALYSIS

BIO EXCIPIENT GRADE / GT3220-K001

LOT: GT3220-011-0118

$NH_2C(NH)NH_2 \cdot HSCN$ ⅄ F.W. 118.16 g/mol ⅄ CAS#: 593-84-0

Manufacturing Date: 11/01/2016 Retest Date: 11/30/2018

Manufacturing Site: 100 Majestic Way, Bangor PA, 18013 Packaging Date: 01/15/2018

Packaging Site: 100 Majestic Way, Bangor PA, 18013

ANALYSIS		SPECIFICATION	TEST RESULT
Absorbance	280nm	0.300 a.u. max.	0.0980 a.u.
	300nm	0.050 a.u. max.	0.0147 a.u.
	340nm	0.030 a.u. max.	0.0040 a.u.
Appearance and Color		White / Crystals	White / Crystals
Assay		99.5% min.	99.62%
Enzymes	DNase	None Detected	None Detected
	RNase	None Detected	None Detected
	Protease	None Detected	None Detected
Identity (IR)		Passes Test	Passes Test
Loss On Drying		0.5% max.	0.1057%
Melting Range		115-121°C	119.5 – 120.6°C
pH (5% Solution)		5.0 – 7.0	5.48 @ 20.4°C
Solubility (35%)		Passes Test	Passes Test
Trace Metals	Arsenic (As)	5 ppm max.	< 5 ppm
	Copper (Cu)	5 ppm max.	< 5 ppm
	Iron (Fe)	5 ppm max.	< 5 ppm
	Lead (Pb)	5 ppm max.	< 5 ppm

COUNTRY OF ORIGIN: U.S.A.

TEST METHOD REFERENCE: DCN: 16-000043

INTENDED USE: Material represented by this Certificate of Analysis is suitable to be used only as the following: ICH Q7 Compliant cGMP Manufactured Excipient for use in further manufacturing. The material represented by this Certificate of Analysis is not suitable to be used as an Active Pharmaceutical Ingredient, Drug Product or household item.

OVI STATEMENT: Based on the manufacturing process and the controlled handling and storage of this product, there is no potential for any of the residual solvents listed in the current USP method <467> Tables 1, 2, 3, or 4 to be present at the specified limits; furthermore, if tested this product would comply with USP/NF requirements.

Prepared by: H. Bennett Date: 1/17/18

Reviewed by: Christel M Date: 1/17/18