

BIOSPECTRA

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

Effective Date:	19-April-2019	19-April-2022	: Date of Next Review
Prepared By:	Jessica DeMaio	16-000105 v.3.0	: Supersedes
QA/QC Approval:	Jenna Miller	Dora Meissner	: Management Approval
Reason for Revision:	See Revision History in ensur		

MES MONOHYDRATE

CERTIFICATE OF ANALYSIS

BIO PHARMA GRADE / ME4220-K025

LOT: ME4220-159-0419

 $C_6H_{13}NO_4S \cdot H_2O$ * F.W. 213.25 g/mol. * CAS# 145224-94-8

Manufacturing Date: 4/8/2019

Retest Date: 4/30/2021

Manufacturing Site: 100 Majestic Way, Bangor PA, 18013 Packaging Date: 4/9/2019

Packaging Site: 100 Majestic Way, Bangor PA, 18013

ANALYSIS	SPECIFICATION	TEST RESULT	
Absorbance (1M)	260 nm	0.1000 a.u. max.	0.0035 a.u.
	280 nm	0.1000 a.u. max.	0.0028 a.u.
Appearance and Color	White / Crystals	White / Crystals	
Assay	99.0% min.	99.18%	
Chloride	0.005% max.	<0.005%	
Color (1M, Alkaline)	Colorless	Colorless	
Enzymes	DNase	None Detected	None Detected
	RNase	None Detected	None Detected
	Protease	None Detected	None Detected
Heavy Metals	2 ppm max.	< 2 ppm	
Identification (IR)	Passes Test	Passes Test	
Loss on Drying @ 130°C	7 – 10%	9.3982%	
pH (5% Soln.)	3.0 – 3.5	3.38 @ 24.3 °C	
pH (0.5M)	2.5 – 4.5	3.17 @ 25.0 °C	
pK _a	5.9 – 6.3	6.1	
Residue on Ignition	0.05% max.	<0.0150%	
Solubility (5%)	Passes Test	Passes Test	
Sulfate	0.005% max.	<0.005%	
Trace Elements	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

