

BIOSPECTRA

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

Effective Date:	4-Feb-2025	4-Feb-2028	: Date of Next Review
Prepared By:	Taylor Yurick	BSI-COA-0028 v.4.1	: Supersedes
QA/QC Approval:	Jaron Hughes	Carissa Albert	: Management Approval
Reason for Revision:	See Revision History in MasterControl.		

CERTIFICATE OF ANALYSIS

MOPS

BIO EXCIPIENT GRADE / MOPS-3220

LOT: MOPS-S02-0126-0002

C₇H₁₅NO₄S · F.W. 209.26 g/mol · CAS# 1132-61-2

Manufacturing Date: 01/16/26 Retest Date: 01/31/28

Manufacturing Site: 1474 Rockdale Lane, Stroudsburg, PA 18360

Packaging Site: 1474 Rockdale Lane, Stroudsburg, PA 18360

ANALYSIS	SPECIFICATION	TEST RESULT
Absorbance (0.1 M)	250 nm	0.020 a.u. max.
	260 nm	0.007 a.u.
	280 nm	0.020 a.u. max.
Appearance and Color	White / Crystals	0.006 a.u.
Assay	0.020 a.u. max.	0.005 a.u.
Chloride	White / Crystals	White / Crystals
Enzymes	99.5% min.	100.2%
	0.005% max	<0.005%
	DNase	None Detected
Enzymes	RNase	None Detected
	Protease	None Detected
Identification (IR)	None Detected	None Detected
Karl Fischer Water	None Detected	None Detected
Loss on Drying	Passes Test	Passes Test
pH (1% solution)	0.1% max.	<0.1%
pH (2.5M)	1.0% max.	<1.0%
pK _a	3.0 – 4.5	4.2 @ 23.3 °C
Residue on Ignition	2.5 – 4.5	3.6 @ 23.1 °C
Solubility (5%)	7.0 – 7.5	7.2
Sulfate	0.1% max.	<0.1%
	Passes Test	Passes Test
	0.005% max.	<0.005%

ANALYSIS	SPECIFICATION	TEST RESULT
Trace Metals	Arsenic (As)	5 ppm max.
	Copper (Cu)	5 ppm max.
	Iron (Fe)	5 ppm max.
	Lead (Pb)	5 ppm max.
		<0.45 ppm
		<0.15 ppm
		<0.30 ppm
		<1.0 ppm

COUNTRY OF ORIGIN: U.S.A.

TEST METHOD REFERENCE: DCN: BSI-ATM-0008

INTENDED USE: Material represented by this Certificate of Analysis is suitable for use as an excipient. It is manufactured in accordance with the ICH Q7 Good Manufacturing Practice Guide. 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, 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: S. Leffken Date: 2/4/26 Job Title: QA Technician III

Reviewed by: Saylor Yumick Date: 2/4/26 Job Title: QA SUPERVISOR