

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

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|----------------------|--------------------------------|-----------------|-----------------------|
| Effective Date: | 1-Jun-2021 | 1-Jun-2024 | : Date of Next Review |
| Prepared By: | Jaron Hughes | 16-001230 v.4.0 | : Supersedes |
| QA/QC Approval: | Carissa McCollian | Wendy Santay | : Management Approval |
| Reason for Revision: | See Revision History in ensur. | | |

CERTIFICATE OF ANALYSIS

MOPS

BIO ULTRA GRADE / NEW CODE MOPS-5201-26

(HISTORICAL CODE MP5201-K050)

LOT: MOPS-0121-00017

$C_7H_{15}NO_4S \cdot x$ F.W. 209.26 g/mol. x CAS#: 1132-61-2

Manufacturing/Packaging Date: 7/6/21 Retest Date: 7/31/23

Packaging Site: 100 Majestic Way, Bangor PA, 18013

| ANALYSIS | | SPECIFICATION | TEST RESULT |
|---------------------------------------|--------------|------------------|------------------|
| Absorbance (0.1 M) | 260 nm | 0.02 a.u. max. | <0.02 a.u. |
| Appearance and Color | | White / Crystals | White / Crystals |
| Assay, Dried Basis | | 99.0% min. | 99.8% |
| Enzymes | DNase | None Detected | None Detected |
| | RNase | None Detected | None Detected |
| | Protease | None Detected | None Detected |
| LOD | | 1% max. | <1% |
| pH of 1% solution | | 2.5 – 4.5 | 4.2 @ 25.1 °C |
| pK _a Report From Mfg. CofA | | 7.10 – 7.30 | 7.2 |
| Trace Elements | Arsenic (As) | 0.0001% max. | <0.0001% |
| | Copper (Cu) | 0.0001% max. | <0.0001% |
| | Iron (Fe) | 0.0005% max. | <0.0005% |
| | Lead (Pb) | 0.0005% max. | <0.0005% |

TEST METHOD REFERENCE: DCN: 16-000498

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: Jaron Hughes Date: 7/15/21 Job Title: QA Specialist

Reviewed by: C. McCollian Date: 7/15/21 Job Title: QA Manager

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