

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2025-03-26 15:43:14

Date of Next Testing: 2028-03-25 15:43:14

Product Name: **3-Morpholinopropanesulfonic Acid (MOPS)**

CAS Number: 1132-61-2

Specifications & Purity: UltraBio™, Ultra pure, ≥99.5%(T)

Lot #: C2519542

SKU #: **M475317**

Version: **2**

Analysis #: **475197**

Storage Temperature: Room temperature

| Parameter                                          | Limit Values   | Result      |
|----------------------------------------------------|----------------|-------------|
| Loss on Drying(110°C)                              | 0-1 (%)        | 0.25630 %   |
| Residue on ignition(Ash)(SO <sub>4</sub> , 900 °C) | 0-0.1 (%)      | 0.00000 %   |
| Sulfate(SO <sub>4</sub> <sup>2-</sup> )            | 0-0.005 (%)    | 0.00000 %   |
| Chloride (Cl <sup>-</sup> )                        | 0-0.05 (%)     | 0.00000 %   |
| Aluminum(Al)                                       | 0-5 (ppm)      | 0.00000 ppm |
| Lead(Pb)                                           | 0-5 (ppm)      | 0.00000 ppm |
| Bismuth(Bi)                                        | 0-5 (ppm)      | 0.00000 ppm |
| Iron(Fe)                                           | 0-5 (ppm)      | 0.00000 ppm |
| Lithium(Li)                                        | 0-5 (ppm)      | 0.00000 ppm |
| Molybdenum(Mo)                                     | 0-5 (ppm)      | 0.00000 ppm |
| Nickel(Ni)                                         | 0-5 (ppm)      | 0.00000 ppm |
| Calcium(Ca)                                        | 0-0.001 (%)    | 0.00000 %   |
| Magnesium(Mg)                                      | 0-5 (ppm)      | 0.00000 ppm |
| Chromium(Cr)                                       | 0-5 (ppm)      | 0.00000 ppm |
| Manganese(Mn)                                      | 0-5 (ppm)      | 0.00000 ppm |
| Potassium(K)                                       | 0-0.005 (%)    | 0.00000 %   |
| Barium(Ba)                                         | 0-5 (ppm)      | 0.00000 ppm |
| Zinc(Zn)                                           | 0-5 (ppm)      | 0.00000 ppm |
| Cadmium(Cd)                                        | 0-5 (ppm)      | 0.00000 ppm |
| Cobalt(Co)                                         | 0-5 (ppm)      | 0.00000 ppm |
| Copper(Cu)                                         | 0-5 (ppm)      | 0.00000 ppm |
| Strontium(Sr)                                      | 0-5 (ppm)      | 0.00000 ppm |
| Sodium(Na)                                         | 0-0.005 (%)    | 0.00000 %   |
| PH(1M Water)                                       | 2.5-4          | 3.56000     |
| Purity (Titration by NaOH)                         | 99.5-100.5 (%) | 99.72000 %  |

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**Parameter**UV Absorbance 260nm(1 M in H<sub>2</sub>O)UV Absorbance 280nm(1 M in H<sub>2</sub>O)

Appearance(M475317)

Solubility in H<sub>2</sub>O , Colorless and clear(500mg/ml)

Infrared spectrum

**Limit Values**

0-0.05

0-0.03

White Powder or Crystals

pass

Conforms to Structure

**Result**

0.02800

0.02600

White Powder or Crystals

Pass

Conforms to Structure

A handwritten signature in black ink that reads "John Su".John Su  
QA & QC Manager