

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2022-12-16 13:17:40  
 Date of Next Testing: 2025-12-15 13:17:40  
 Product Name: **Betaine**  
 CAS Number: 107-43-7  
 Specifications & Purity: 99%, Ultra pure, ≥99.0%  
 Lot #: L2210123  
 SKU #: **B105556**  
**Analysis:** **159572**  
 Storage Temperature: Protected from light

Parameter	Limit Values	Result
Sulfate(SO <sub>4</sub> <sup>2-</sup> )	0-200 (ppm)	12.63 ppm
Water by Karl Fischer	0-1 (%)	0.36 %
Magnesium(Mg)	0-5 (ppm)	0.00 ppm
Potassium(K)	0-50 (ppm)	0.00 ppm
Chloride (Cl <sup>-</sup> )	0-200 (ppm)	3.62 ppm
UV Absorbance A 1M/280nm, mEtOH	0-0.05	0.02
Cobalt(Co)	0-5 (ppm)	0.00 ppm
(Pb)Lead	0-5 (ppm)	0.00 ppm
Cadmium(Cd)	0-5 (ppm)	0.00 ppm
Copper(Cu)	0-5 (ppm)	0.00 ppm
Calcium(Ca)	0-10 (ppm)	0.00 ppm
Chromium(Cr)	0-5 (ppm)	0.00 ppm
Iron(Fe)	0-5 (ppm)	0.00 ppm
Manganese(Mn)	0-5 (ppm)	0.00 ppm
Nickel(Ni)	0-5 (ppm)	0.00 ppm
Zinc(Zn)	0-5 (ppm)	0.00 ppm
Sodium(Na)	0-100 (ppm)	10.00 ppm
UV Absorbance A 1M/260nm, mEtOH	0-0.09	0.07
Purity(Nonaqueous Titration)	99-101 (%)	99.01 %
Appearance (B105556)	White to Off-White Powder	White to Off-White Powder
Insoluble matter	pass	Pass
Solubility in MeOH , soluble 1 M at 20 °C, clear, colorless	pass	Pass
Infrared spectrum	Conforms to Structure	Conforms to Structure



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A handwritten signature in black ink that reads "John Su".

John Su  
QA & QC Manager