

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2024-02-28 11:19:57  
 Date of Next Testing: 2027-02-27 11:19:57  
 Product Name: **L-Ascorbic acid**  
 CAS Number: 50-81-7  
 Specifications & Purity: Ultrapure BioReagent, ≥99.5% (RT)  
 Lot #: B2421605  
 SKU #: **L432790**  
**Analysis:** **313169**  
 Storage Temperature: Protected from light

Parameter	Limit Values	Result
Loss on drying	0-0.05 (%)	0.01 %
Sulfated Ash	0-0.05 (%)	0.03800 %
Aluminium(Al)	0-5 (ppm)	0.00000 ppm
Barium(Ba)	0-5 (ppm)	0.00 ppm
Bismuth(Bi)	0-5 (ppm)	0.00 ppm
Calcium(Ca)	0-10 (ppm)	0.00 ppm
Cadmium(Cd)	0-5 (ppm)	0.00 ppm
Cobalt(Co)	0-5 (ppm)	0.00 ppm
Chromium(Cr)	0-5 (ppm)	0.00 ppm
Copper(Cu)	0-5 (ppm)	0.00 ppm
Iron(Fe)	0-5 (ppm)	0.00 ppm
Potassium(K)	0-50 (ppm)	0.00 ppm
Lithium(Li)	0-5 (ppm)	0.00 ppm
Magnesium(Mg)	0-5 (ppm)	0.00 ppm
Manganese(Mn)	0-5 (ppm)	0.00 ppm
Molybdenum(Mo)	0-5 (ppm)	0.00 ppm
Sodium(Na)	0-50 (ppm)	0.00 ppm
Nickel(Ni)	0-5 (ppm)	0.00 ppm
Lead(Pb)	0-5 (ppm)	0.00 ppm
Strontium(Sr)	0-5 (ppm)	0.00 ppm
Zinc(Zn)	0-5 (ppm)	0.00 ppm
Arsenic traces(MHS-AAS)	0-0.1 (ppm)	0.00 ppm
Chloride (Cl-)	0-50 (ppm)	0.00 ppm
PH(25 °C, 1 M in Water)	1.0-2.5	2.02
Sulfate(SO <sub>4</sub> )	0-20 (ppm)	0.00000 ppm
Specific Rotation [α] <sub>20</sub> /D(c=10 in H <sub>2</sub> O)	20.5-21.5 (°)	20.55°

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Parameter	Limit Values	Result
Purity(Iodometric Titration)	99.5-100.5 (%)	99.53 %
Appearance(L432790)	White To Off White Powder Or Crystals	White to Off White Powder or Crystals
Solubility in H <sub>2</sub> O,Colorless and clear(1M)	Pass	Pass
Residue (filter test)	no residue	no residue
Infrared spectrum	Conforms to Structure	Conforms to Structure

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

John Su  
QA & QC Manager