

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2026-01-19 17:34:22
 Date of Next Testing: 2029-01-18 17:34:22
 Product Name: **L-Alanine**
 CAS Number: 56-41-7
 Specifications & Purity: UltraBio™, Ultra pure, ≥99.5%(NT)
 Lot #: A2613117
 SKU #: **L432936**
 Version: **1**
 Analysis #: **492006**
 Storage Temperature: Room temperature, Argon charged

Parameter	Limit Values	Result
Specific Rotation [α] ₂₀ /D(c=5 in 5 M HCl)	13-15 (°)	14.60000 °
Chloride (Cl ⁻)	0-50 (ppm)	21.20000 ppm
Aluminum (Al)	0-5 (ppm)	1.10000 ppm
Arsenic (As)	0-0.1 (ppm)	0.00400 ppm
Barium (Ba)	0-5 (ppm)	3.40000 ppm
Bismuth (Bi)	0-5 (ppm)	1.60000 ppm
Calcium (Ca)	0-10 (ppm)	3.10000 ppm
Cadmium (Cd)	0-5 (ppm)	1.90000 ppm
Cobalt (Co)	0-5 (ppm)	3.11000 ppm
Chromium (Cr)	0-5 (ppm)	2.90000 ppm
Copper (Cu)	0-5 (ppm)	1.95000 ppm
Iron (Fe)	0-5 (ppm)	2.90000 ppm
Potassium (K)	0-50 (ppm)	10.24000 ppm
Lithium (Li)	0-5 (ppm)	2.10000 ppm
Magnesium (Mg)	0-5 (ppm)	1.51000 ppm
Manganese (Mn)	0-5 (ppm)	2.01000 ppm
Molybdenum (Mo)	0-5 (ppm)	0.95100 ppm
NH ₄ ⁺	0-100 (ppm)	3.47000 ppm
Sodium (Na)	0-50 (ppm)	2.20000 ppm
Nickel (Ni)	0-5 (ppm)	1.00800 ppm
Lead (Pb)	0-5 (ppm)	1.99000 ppm
Strontium (Sr)	0-5 (ppm)	0.48000 ppm
Zinc (Zn)	0-5 (ppm)	0.81000 ppm
λ: 260 nm A _{max}	0-0.03	0.00000

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Parameter	Limit Values	Result
λ : 280 nm Amax	0-0.02	0.01000
Purity(NonaqueousTitration)	99.5-102.5 (%)	99.90000 %
Insoluble matter	0-0.3 (%)	0.15000 %
Residue on Ignition	0-0.05 (%)	0.04000 %
Sulfate(SO ₄ ²⁻)	0-50 (ppm)	48.00000 ppm
Appearance(L432936)	Colorless to white powder or crystals and/or chunks	Colorless to white powder or crystals and/or chunks
Infrared spectrum	Conforms to Structure	Conforms to Structure
Solubility in H ₂ O	Almost transparency	almost transparency



John Su
QA & QC Manager