

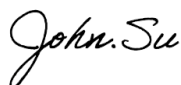
ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2024-03-20 14:32:33
 Date of Next Testing: 2028-03-19 14:32:33
 Product Name: **L(+)-Arginine hydrochloride**
 CAS Number: 1119-34-2
 Specifications & Purity: USP
 Lot #: C2416136
 SKU #: **L274353**
Analysis: **323628**
 Storage Temperature: Room temperature

Parameter	Limit Values	Result
Ignition Residue (as sulfate)	0-0.1 (%)	0.00 %
Sulfate(SO ₄ ²⁻)	0-0.03 (%)	0.01 %
Chloride (Cl ⁻)	16.5-17.1 (%)	16.76 %
Heavy metal (as Pb)	0-10 (ppm)	0.00 ppm
Arsenic(As)	0-1 (ppm)	0.00000 ppm
Chromatographic purity(Total impurities)	0-2 (%)	0.33200 %
pH(1.0 g in 10 mL H ₂ O)	4.7-6.2	4.97000
Assay(Perchloric acid titration, calc. on anhydrous substance)	98.5-101.5 (%)	101.50000 %
Specific Rotation [α] ₂₀ /D(c=80mg/mL in 6M HCl)	21.4-23.6 (°)	21.41000 °
Chromatographic purity(Individual impurities)	0-0.5 (%)	0.33000 %
Loss on drying	0-0.2 (%)	0.00 %
Appearance(L274353)	white crystalline powder	white crystalline powder
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager