

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing:	2024-08-10 14:30:53
Date of Next Testing:	2028-08-09 14:30:53
Product Name:	<b>L-(+)-Lysine Monohydrochloride</b>
CAS Number:	657-27-2
Specifications & Purity:	Ultra pure, ≥99.5%(AT)
Lot #:	G2431277
SKU #	<b>L113005</b>
Version	<b>0</b>
<b>Analysis #:</b>	<b>382696</b>
Storage Temperature:	Room temperature

Parameter	Limit Values	Result
Strontium(Sr)	0-5 (ppm)	2.00 ppm
Specific Rotation [α] <sub>20</sub> /D(c=5 in 5 M HCl)	20-21 (°)	20.18°
(Pb)Lead	0-5 (ppm)	1.00 ppm
Iron(Fe)	0-5 (ppm)	2.00 ppm
Molybdenum(Mo)	0-5 (ppm)	1.20 ppm
foreign amino acids	0-0.3 (%)	0.10 %
Chromium(Cr)	0-5 (ppm)	0.60 ppm
Loss on drying	0-0.5 (%)	0.20 %
Ammonia (NH <sub>4</sub> )	0-100 (ppm)	12.00 ppm
UV Absorbance 280nm	0-0.1	0.02
Lithium(Li)	0-5 (ppm)	0.36 ppm
Magnesium(Mg)	0-5 (ppm)	0.55 ppm
Barium(Ba)	0-5 (ppm)	2.00 ppm
Sulfate(SO <sub>4</sub> <sup>2-</sup> )	0-100 (ppm)	20.00 ppm
(As)Arsenic	0-0.1 (ppm)	0.01 ppm
Manganese(Mn)	0-5	2.00
Aluminum(Al)	0-5 (ppm)	1.20 ppm
Cobalt(Co)	0-5 (ppm)	3.20 ppm
Ignition Residue (as sulfate)	0-0.1 (%)	0.02 %
Bismuth(Bi)	0-5 (ppm)	0.25 ppm
UV Absorbance 260nm	0-0.1	0.00
PH	5-6	5.20
Zinc(Zn)	0-5 (ppm)	2.10 ppm
Potassium(K)	0-50 (ppm)	3.50 ppm
Nickel(Ni)	0-5 (ppm)	1.22 ppm

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Parameter	Limit Values	Result
Sodium(Na)	0-50 (ppm)	2.40 ppm
Cadmium(Cd)	0-5 (ppm)	1.23 ppm
Copper(Cu)	0-5 (ppm)	1.66 ppm
Calcium(Ca)	0-10 (ppm)	2.00 ppm
Purity (Argentmetric Titration)	99.5-100 (%)	99.86 %
Appearance (L113005)	White Powder or Crystals	White Powder or Crystals
Carbon NMR Spectrum	Conforms to Structure	Conforms to Structure
Insoluble matter	pass	Pass
Solubility in H <sub>2</sub> O , soluble , 1M , 20°C, clear, colorless	pass	Pass
λ, 0.5 M in H <sub>2</sub> O	Pass	Pass
Infrared spectrum	Conforms to Structure	Conforms to Structure

John Su  
QA & QC Manager