

Certificate of Analysis

Date of Testing: 2024-11-06 15:26:50

Date of Next Testing: 2028-11-05 15:26:50

Product Name: **L-Cystine**

CAS Number: 56-89-3

Specifications & Purity: Moligand™, SuperPure grade, ≥99.5%

Lot #: K2401299

SKU #: **C108227**

Version: **2**

Analysis #: **424506**

Storage Temperature: Protected from light, Desiccated

Parameter	Limit Values	Result
Zinc(Zn)	0-5 (ppm)	0.33 ppm
Potassium(K)	0-50 (ppm)	1.02 ppm
Calcium(Ca)	0-50 (ppm)	1.14 ppm
Cadmium(Cd)	0-5 (ppm)	0.25 ppm
Sodium(Na)	0-150 (ppm)	2.36 ppm
Purity(HPLC)	99.5-100 (%)	99.75400 %
(Pb)Lead	0-5 (ppm)	0.25 ppm
Chloride (Cl-)	0-500 (ppm)	1.15 ppm
Iron(Fe)	0-10 (ppm)	0.36 ppm
Magnesium(Mg)	0-5 (ppm)	0.03 ppm
Chromium(Cr)	0-5 (ppm)	0.02 ppm
Nickel(Ni)	0-5 (ppm)	0.32 ppm
Loss on drying	0-0.1 (%)	0.00 %
Manganese(Mn)	0-5	0.24
Cobalt(Co)	0-5 (ppm)	0.02 ppm
Sulfate(SO42-)	0-100 (ppm)	1.53 ppm
Copper(Cu)	0-6 (ppm)	0.03 ppm
Sulfate Ash	0-0.1 (%)	0.00 %
Specific Rotation [α] ₂₀ /D(c=2 in 1 M HCl)	-224--214 (°)	-214.44 °
Infrared spectrum	Conforms to Structure	Conforms to Structure
Insoluble matter	pass	Pass
Appearance(C108227)	Colorless or White Powder to Crystals	Colorless or White Powder to Crystals



ALADDIN SCIENTIFIC CORPORATION

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

John Su
QA & QC Manager