

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2023-12-04 11:47:53

Date of Next Testing: 2027-12-03 11:47:53

Product Name: **L-Penicillamine**

CAS Number: 1113-41-3

Specifications & Purity: $\geq 98\%$ (T)

Lot #: L2301275

SKU #: **S161218**Version: **0**Analysis #: **296096**

Storage Temperature: Store at 2-8°C

Parameter	Limit Values	Result
Specific Rotation $[\alpha]_{20/D}(c=1 \text{ in } 1\text{mol/L NaOH})$	61-65 (°)	63.45°
Purity(Titration by HClO_4)	97.5-102.5 (%)	97.65 %
Appearance (S161218)	White to Off-White Powder or Crystals	White to Off-White Powder or Crystals
Infrared spectrum	Conforms to Structure	Conforms to Structure
Proton NMR spectrum	Conforms to Structure	Conforms to Structure

John Su
QA & QC Manager