

## Certificate of Analysis

Date of Testing: 2023-04-21 11:47:43  
Date of Next Testing: 2026-04-20 11:47:43  
Product Name: **L-Cystine dihydrochloride**  
CAS Number: 30925-07-6  
Specifications & Purity: from non-animal source, ≥98.0% dry basis  
Lot #: D2311677  
SKU #: **L476402**  
**Analysis: 191623**

Parameter	Limit Values	Result
Purity(Titration by AgNO <sub>3</sub> )	97.5-102.5 (%)	99.97%
Specific Rotation [ $\alpha$ ] <sub>20</sub> /D(c=1 in 1mol/L HCl)	-173~-163 (°)	-172.85 °
Loss on drying	0-0.3 (%)	0.00%
Heavy metals	0-10 (ppm)	0.00 ppm
Appearance(L476402)	White to Off-White Crystalline Powder	white to off-white crystalline powder
NMR Spectrum 1H	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager