

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2024-12-17 18:56:30
 Date of Next Testing: 2028-12-16 18:56:30
 Product Name: **DL-Thioctic acid**
 CAS Number: 1077-28-7
 Specifications & Purity: $\geq 99\%$
 Lot #: L2412697
 SKU #: **T106640**
 Version: **1**
 Analysis #: **441074**
 Storage Temperature: Store at 2-8°C, Protected from light, Argon charged

Parameter	Limit Values	Result
Specific Rotation $[\alpha]_{20/D}(c=5 \text{ in EtOH})$	-1-1 (°)	0.08°
Heavy metals	0-10 (ppm)	0.00 ppm
Purity(Neutralization titration)	98.5-101.5 (%)	100.99%
Loss on drying	0-1 (%)	0.10%
Chloride (Cl-)	0-0.071 (%)	0.01%
Sulfate Ash	0-0.1 (%)	0.00%
Melting point	60-63 (°C)	62.91000 °C
Appearance (T106640)	yellow powder, crystals and/or chunks	yellow powder, crystals and/or chunks
Solubility(2% in 10% NaOH)	Pale yellow transparent liquid	Pale yellow transparent liquid
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager