

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2024-05-27 12:55:26  
 Date of Next Testing: 2028-05-26 12:55:26  
 Product Name: **DL-Thioctic acid**  
 CAS Number: 1077-28-7  
 Specifications & Purity: 99%  
 Lot #: E2423410  
 SKU #: **T106640**  
 Version: **1**  
 Analysis #: **355523**  
 Storage Temperature: Store at 2-8°C, Argon charged

Parameter	Limit Values	Result
Specific Rotation [α] <sub>20</sub> /D(c=5 in EtOH)	-1-1 (°)	0.15°
Heavy metals	0-10 (ppm)	2.30 ppm
Purity(Neutralization titration)	98.5-101.5 (%)	100.19%
Loss on drying	0-1 (%)	0.20%
Chloride (Cl <sup>-</sup> )	0-0.071 (%)	0.04%
Sulfate Ash	0-0.1 (%)	0.02%
Melting point	60-63 (°C)	62.95000 °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