

## Certificate of Analysis

Date of Testing: 2024-08-23 11:47:28  
Date of Next Testing: 2028-08-22 11:47:28  
Product Name: **DL-Thioctic acid**  
CAS Number: 1077-28-7  
Specifications & Purity: 99%  
Lot #: H2416500  
SKU #: **T106640**  
Version: **1**  
Analysis #: **395013**  
Storage Temperature: Store at 2-8°C, Argon charged

Parameter	Limit Values	Result
Specific Rotation $[\alpha]_{20/D(c=5 \text{ in EtOH})}$	-1-1 (°)	0.01°
Heavy metals	0-10 (ppm)	0.00 ppm
Purity(Neutralization titration)	98.5-101.5 (%)	99.98%
Loss on drying	0-1 (%)	0.26%
Chloride (Cl-)	0-0.071 (%)	0.00%
Sulfate Ash	0-0.1 (%)	0.00%
Melting point	60-63 (°C)	62.85000 °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