

## Certificate of Analysis

Date of Testing: 2022-03-01 15:35:04  
Date of Next Testing: 2026-02-28 15:35:04  
Product Name: **DL-Thioctic acid**  
CAS Number: 1077-28-7  
Specifications & Purity: 99%  
Lot #: B2225741  
SKU #: **T106640**  
**Analysis:** **059488**  
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)	0.00 ppm
Loss on drying	0-1 (%)	0.36 %
Chloride (Cl <sup>-</sup> )	0-0.071 (%)	0.05 %
Sulfate Ash	0-0.1 (%)	0.02 %
Purity(Neutralization titration)	98.5-101.5 (%)	98.51 %
Melting point	60-63 (°C)	62.98000 °C
Appearance (T106640)	yellow powder, crystals and/or chunks	yellow powder, crystals and/or chunks
Infrared spectrum	Conforms to Structure	Conforms to Structure
Solubility(2% in 10% NaOH)	Pale yellow transparent liquid	Pale yellow transparent liquid



John Su  
QA & QC Manager