

## Certificate of Analysis

Date of Testing: 2022-08-02 17:14:56  
 Date of Next Testing: 2026-08-01 17:14:56  
 Product Name: **DL-Thioctic acid**  
 CAS Number: 1077-28-7  
 Specifications & Purity: 99%  
 Lot #: G2230451  
 SKU #: **T106640**  
**Analysis:** **111663**  
 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 (°)	-0.27°
Purity(Neutralization titration)	98.5-101.5 (%)	98.64%
Melting point	60-63 (°C)	62.50000 °C
Loss on drying	0-1 (%)	0.07%
Chloride (Cl <sup>-</sup> )	0-0.071 (%)	0.05%
Sulfate Ash	0-0.1 (%)	0.04%
Heavy metals	0-10 (ppm)	4.59 ppm
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
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager