

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing:	2024-11-04 13:36:00
Date of Next Testing:	2028-11-03 13:36:00
Product Name:	<b>DL-Thioctic acid</b>
CAS Number:	1077-28-7
Specifications & Purity:	≥99%
Lot #:	J2430609
SKU #	<b>T106640</b>
Version	<b>1</b>
<b>Analysis #:</b>	<b>419294</b>
Storage Temperature:	Store at 2-8°C, Protected from light, Argon charged

Parameter	Limit Values	Result
Specific Rotation [α] <sub>20</sub> /D(c=5 in EtOH)	-1-1 (°)	-0.26 °
Heavy metals	0-10 (ppm)	0.00 ppm
Purity(Neutralization titration)	98.5-101.5 (%)	100.19 %
Loss on drying	0-1 (%)	0.28 %
Chloride (Cl <sup>-</sup> )	0-0.071 (%)	0.02 %
Sulfate Ash	0-0.1 (%)	0.00 %
Melting point	60-63 (°C)	62.98000 °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