

**CERTIFICATE OF ANALYSIS**

**Product Name:** R-(+)- $\alpha$ -Lipoic Acid      **Lot No.:** A40-250929-1  
**CAS No.:** 1200-22-2      **Quantity:** 1000kg  
**Production Date:** 2025-09-29      **Expiry Date:** 2027-09-28

Items	Specifications	Results	Test Method
Appearance	A pale yellowish powder	Passes	Organoleptic
Identification –IR	Passes Test	Passes	GB/T6040-2019
Assay	98.0% -101.0%	98.5%	Q/FJKH 008-2021
R/S ratio	80-90% /10-20%	82.2%/17.8%	Q/FJKH 008-2021
Bulk Density	$\geq 0.120$ g/ml	0.426 g/ml	GB/T 20316.2-2006
Tapped Density	$\geq 0.155$ g/ml	0.537 g/ml	GB/T 21354-2008
Particle size	100% thru #40 mesh	Passes	GB/T13025.1-2012
Loss On Drying	$\leq 0.5\%$	0.15%	Q/FJKH 008-2021
Residual on Ignition	$\leq 0.8\%$	0.07%	Q/FJKH 008-2021
Optical (Specific) Rotation	+70.0° to +90.0°	+77.4°	Q/FJKH 008-2021
Heavy Metals (as Pb)	$\leq 5$ ppm	$\leq 5$ ppm	Q/FJKH 008-2021
Lead (Pb)	$\leq 0.5$ ppm	ND	ICP-MS
Cadmium (Cd)	$\leq 1$ ppm	ND	ICP-MS
Mercury (Hg)	$\leq 0.1$ ppm	ND	ICP-MS
Arsenic (As)	$\leq 1$ ppm	ND	ICP-MS
Cyclohexane	$\leq 3880$ ppm	753ppm	USP
Toluene	$\leq 1$ ppm	Not Detected	USP
Ethyl Acetate	$\leq 500$ ppm	154ppm	USP
Total Aerobic Count	$\leq 1000$ cfu/g	< 10 cfu/g	GB 4789.2-2022
Molds and Yeasts	$\leq 100$ cfu/g	< 10 cfu/g	GB 4789.15-2016
Total Coliforms	$\leq 100$ cfu/g	< 10 cfu/g	GB 4789.3-2016
Escherichia Coli	Negative to test (<10 cfu/g)	< 10 cfu/g	GB 4789.38-2012
Salmonella Species	Negative to test (Absent in 25g)	Absent in 25g	GB 4789.4-2024
Staphylococcus Aureus	Negative to test (Absent in 25g)	Absent in 25g	GB 4789.10-2016

**Conclusion: This Batch of Product Complies with Enterprise Standard.**

This material is stabilized using S- RLA. The proportion of RLA in this product is 80-90%, and the proportion of SLA is 10-20%.

Please keep in cool dry place, avoid direct sunlight, heat and moisture.

Reported By : Xiaoxiao Zeng

Reviewed By : Lin Tang

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