

CERTIFICATE OF ANALYSIS

Product Name:	Alpha Lipoic Acid	Lot No.:	KH-A40-250319-1
CAS No.:	1077-28-7	Quantity:	3000kg
Product Code:	KH-A40	Production Date:	2025-03-19
		Expiry Date:	2027-03-18

Country of Origin:		Test Date:	
China		2025-03-19	
Items	Specifications	Results	Test Method
Appearance	Slightly yellow crystalline powder	Passes	Organoleptic
Assay (HPLC)	99.0% -101.0%	99.3%	USP
Melting temperature	60.0℃ - 62.0℃	61.1℃	USP
Individual impurity	≤ 0.1%	0.08%	USP
Total impurities	≤ 2.0%	0.13%	USP
Impurity polymer(TLC)	≤ 1.0%	Passes	USP
Particle size	100% thru #40 mesh	Passes	GB/T13025.1-2012
Loss On Drying	≤ 0.2%	0.06%	USP
Residual on Ignition	≤ 0.1%	0.06%	USP
Specific Rotation[α] _D ²⁵	-1.0° to +1.0°	0°	USP
Heavy Metals (as Pb)	≤ 10ppm	≤ 10ppm	General Rule 0821
Lead (Pb)	≤ 0.5ppm	ND	ICP-MS
Cadmium (Cd)	≤ 1ppm	ND	ICP-MS
Mercury (Hg)	≤ 0.1ppm	ND	ICP-MS
Arsenic (As)	≤ 1ppm	0.0261ppm	ICP-MS
Cyclohexane	≤ 3880ppm	839ppm	USP
Ethyl Acetate	≤ 500ppm	199ppm	USP
Total Aerobic Count	≤ 1000 cfu/g	< 10 cfu/g	GB 4789.2-2022
Molds and Yeasts	≤ 100 cfu/g	< 10 cfu/g	GB 4789.15-2016
Total Coliforms	≤ 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 current USP standard.