



Certificate of Analysis

Product Name:	Alpha Lipoic Acid	Batch Number:	Varies
CAS No.	1077-28-7	Manufacture Date:	Varies
Molecular Formula:	C₈H₁₄O₂S₂	Expiry Date:	Varies

IDENTIFICATION			SPECIFICATION	RESULT
Assay			99~101%	99 - 99.3%
Physical	Appearance		Slightly yellow crystalline powder	Complies
	Loss on drying		≤ 0.2%	0.1%
	Residue on ignition		≤ 0.1%	0.01% - 0.03%
	Specific rotation		-1.0° to +1.0°	0°
	Particle Size		100% pass 40 mesh	Complies
	Melting point		60.0°C ~ 62.0°C	61.6°C- 61.8°C
	Residual solvents	Cyclohexane	≤ 1000 - 3880 ppm	750 - 1020 ppm
		Ethyl Acetate	≤ 250 - 500 ppm	74 - 180 ppm
		Toluene	≤ 20 ppm	Not detected
Chemical	Heavy Metals		≤ 10 ppm	Complies
	Lead (Pb)		≤ 3 ppm	< 3 ppm
	Cadmium (Cd)		≤ 1 ppm	< 1 ppm
	Mercury (Hg)		≤ 0.1 ppm	< 0.1 ppm
	Single impurity		≤ 0.10%	0.02% - 0.03%
	Total impurities		≤ 2.0%	0.05% - 0.07%
Microbial	Total Plate Count		≤ 1000 cfu/g	< 10 cfu/g
	Yeast & Mold		≤ 100 cfu/g	< 10 cfu/g
	E. Coli, Salmonella, Staphylococcus		Negative	Complies
Else	Storage condition		Sealed, kept in shady and dry place	
	Shelf life		Two years	

