

CERTIFICATE OF ANALYSIS

Product Name: Acetyl L-Carnitine HCL
Manufacture Date: 11th Nov 2021
Batch Number: 10100420211116
Amount: 150kg

Packaging: 25kg net Drums
Testing Date: 13th Nov 2021
Re-Test Date: 10th Dec 2024
Cas Number: 5080-50-2

Item	Specification	Test Result	Testing Method
Appearance	White crystalline powder	Conforms	Organoleptic
Identification	IR	Positive	USP
Appearance of Solution	Clear and colourless	Conforms	Ph.Eur
Specific Rotation	-26.0° ~ -29.0°	-28.06°	USP
pH	2.3 ~ 2.6	2.35	USP
Loss on Drying	Max 0.5%	0.26%	USP
Chloride	14.6 ~ 15.1%	14.82%	USP
Assay	98.5 ~ 102.0%	99.82%	Titration
Residue on Ignition	Max 0.5%	0.04%	USP
Bulk Density	0.45 ~ 0.70g/ml	0.68g/ml	USP
Particle Size	Min 100% passing through 20 mesh	Conforms	USP
Heavy Metals	Max 10ppm	Conforms	USP
Arsenic	Max 1ppm	Conforms	Ch.P
Cyanide	Absent	Absent	Ch.P
Lead	Max 0.25ppm	0.07ppm	USP
Cadmium	Max 1ppm	Conforms	USP
Mercury	Max 0.1ppm	Conforms	USP
Total Plate Count	Max 1000cfu/g	20cfu/g	USP
Yeast and Mould	Max 100cfu/g	10cfu/g	USP
E.Coli	Negative in 1g	Negative	USP
Salmonella	Negative in 1g	Negative	USP

Staphylococcus Aureus	Negative in 25g	Negative	
Conclusion:	Conforms to the requirements of standard		

Remarks: Test results above are just for reference. As for specific, the sample shall be taken as standards.