

### Certificate Of Analysis

Product Name: L-Leucine

CAS No. 61-90-5

Packing: 25kg/drum

Batch No.:L20140309

Quantity:3000kg

Mfg Date: 2014.03.09

Inspection Date: 2014.03.10

Expiry Date: 2016.03.08

Country Of Origin: China

Items	Limits	Test results
Description	White crystals or crystalline powder	Conforms
Assay	98.5%~101.5%	99.6%
Identification (Infrared Absorption)	Corresponding to Reference Spectrum	Confirms
State of solution	Clear	Confirms
PH	5.5~7.0	5.8
Specific rotation	+14.9°~+17.3°	+16.1°
Residue on Ignition	≤0.4%	0.06%
Loss on Drying	≤0.2%	0.05%
Chloride (Cl)	≤500ppm	<500ppm
Iron(Fe)	≤30ppm	<30ppm
Sulfate ( SO <sub>4</sub> )	≤300ppm	<300ppm
Heavy Metals	≤15ppm	<15ppm
Lead (Pb)	≤5ppm	<5ppm
Arsenic (As)	≤3ppm	<3ppm
Cadmium (Cd)	≤1ppm	<1ppm
Mercury (Hg)	≤1ppm	<1ppm
Total Plate Count	≤5000cfu/g	<5000cfu/g
Yeast and Molds	≤100cfu/g	<100cfu/g
E.Coli	Negative in 10g	Confirms
Staphylococcus Aureus	Negative in 10g	Confirms
Salmonella	Negative in 10g	Confirms
Storage Condition	Stored In Cool and Dry place	
Conclusion: Passed test according to the Standard of USP24 .		

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