

CERTIFICATE OF ANALYSIS

Product Name	L-Leucine	Batch Number	010047200812
CAS Number	61-90-5	Manufacture Date	Aug 12, 2020
Standard	USP32	Best Used Before	Aug 11, 2022

Items	Specifications	Results
Appearance	White crystalline or crystalline powder	Conforms
Identification	Infrared Absorption	Conforms
Specific rotation $[\alpha]_D^{20}$	+ 14.9° to + 17.3°	+ 16.0°
pH	5.5 to 7.0	6.2
Loss on drying	≤0.2%	0.14%
Residue on ignition	≤0.40%	0.10%
Chloride (Cl)	≤0.05%	Conforms
Sulfate(SO ₄)	≤ 0.03%	Conforms
Iron(Fe)	≤30ppm	Conforms
Heavy metals	≤15ppm	Conforms
Lead	≤3ppm	Conforms
Arsenic(as As ₂ O ₃)	≤1ppm	Conforms
Mercury	≤0.1ppm	Conforms
Chromatographic purity	As per USP32	Conforms
Organic volatile impurities	As Per USP32	Conforms
Assay	98.5% to 101.5%	99.2%
Total Plate Count	≤1000cfu/g	Conforms
Yeast and Mould	≤100cfu/g	Conforms
E.Coli	Negative	Negative
Salmonella	Negative	Negative
S.aureus	Negative	Negative

Conclusion: Qualified