

CERTIFICATE OF ANALYSIS

Product Name	L-Leucine	Batch Number	17022401
CAS Number	61-90-5	Manufacture Date	Feb 24, 2017
Quantity	100.0Kg	Retested date	Feb 23, 2019

Test Items	Standards	Results
Description	White crystalline powder	Conforms
Identification	Infrared Absorption	Conforms
Assay	98.5~101.5%	99.4%
State of solution	≥98.0%	98.52%
Specific optical rotation[a]	+14.7~+17.3°	+15.3°
Heavy metals(Pb)	≤5ppm	<5ppm
Loss on drying	≤0.2%	<0.1%
Residue on ignition	≤0.1%	<0.1%
Chloride(Cl)	≤400ppm	<400ppm
Ammonium(NH ₄)	≤0.02%	<0.02%
Sulfate(SO ₄)	≤200ppm	<200ppm
Iron(Fe)	≤10ppm	<10ppm