

Shine Star (Hubei) Biological Engineering Co., Ltd.

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CERTIFICATE OF ANALYSIS

Product Name:	L-Leucine	CAS No.:	61-90-5
Quantity:	1000kgs	Manufacture Date:	Dec 06, 2018
Batch No.:	55184523	Analysis Date:	Dec 16, 2018
Quality Standard:	USP33	Expiry Date:	Dec 05, 2020
Test Items	Limit	Result	
Appearance	white or almost white crystalline powder	conform	
Identification	as per USP33	conform	
Specific rotation	+14.9° to +17.3°	+15.4°	
pH	5.5 to 7.0	5.9	
Loss on drying	not more than 0.2%	0.16%	
Residue on ignition	not more than 0.4%	0.04%	
Chloride	not more than 0.05%	<0.05%	
Sulfate	not more than 0.03%	<0.03%	
Iron	not more than 0.003%	<0.003%	
Heavy metals	not more than 0.0015%	<0.0015%	
Chromatographic purity	as per USP33	conform	
Assay	98.5% to 101.5%	99.68%	
Conclusion: The products conform to USP33 standard.			
Reported by: 陈燕		Verified by: 郭刚	
Storage: Preserve in well-closed containers.			