

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	Sep 12, 2021
Batch No.	55213678	Analysis Date	Sep 16, 2021
Quality Standard	USP33	Expiry Date	Sep 11, 2023
Test Items	Limit	Result	
Appearance	white or almost white crystalline powder	conform	
Identification	as per USP33	conform	
Specific rotation	+14.9° to +17.3°	+15.3°	
pH	5.5 to 7.0	5.8	
Loss on drying	not more than 0.2%	0.15%	
Residue on ignition	not more than 0.4%	0.03%	
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%	99.6%	
Conclusion: The products conform to USP33 standard.			
Reported by: 陈燕		Verified by: 郭刚	
Storage: Preserve in well-closed containers.			



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Identification	as per USP33	conform
Specific rotation	+14.9° to +17.3°	+15.4°
pH	5.5 to 7.0	5.8
Loss on drying	not more than 0.2%	0.14%
Residue on ignition	not more than 0.4%	0.03%
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%	99.7%

Conclusion: The products conform to USP33 standard.

Reported by: 陈燕

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Storage: Preserve in well-closed containers.