

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

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CERTIFICATE OF ANALYSIS

Product Name:	L-Arginine Monohydrochloride		
CAS No.:	1119-34-2		
Quantity:	Sample	Manufacture Date:	Dec. 06, 2011
Batch No.:	5311409	Analysis Date:	Dec. 10, 2011
Quality Standard:	USP31	Expiry Date:	Dec. 05, 2013
Test Items	Limit	Result	
Appearance	white or almost white crystalline powder or colorless crystals	conform	
Identification	as per USP31	conform	
Specific rotation	+21.4° to +23.6°	+22.5°	
Loss on drying	not more than 0.2%	0.10%	
Residue on ignition	not more than 0.1%	0.04%	
Sulfate	not more than 0.03%	<0.03%	
Heavy metals	not more than 0.002%	<0.002%	
Chromatographic purity	as per USP31	conform	
Organic volatile impurities	as per USP31	conform	
Residual solvents	as per USP31	conform	
Chloride	16.5% to 17.1%	16.8%	
Assay	98.5% to 101.5%	99.67%	
Conclusion: The products conform to USP31 standard.			
Analyst: 涂静 胡昌清 张冰 万东静		Verifier: 郭刚	
Storage: Preserve in well-closed containers and protected from light			