

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

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## CERTIFICATE OF ANALYSIS

Product Name:	L-Histidine Monohydrochloride Monohydrate		
CAS No.:	5934-29-2		
Quantity:	Sample	Manufacture Date:	Dec. 05, 2011
Batch No.:	5411152	Analysis Date:	Dec. 09, 2011
Quality Standard:	AJI92	Expiry Date:	Dec. 04, 2013
Test Items	Limit	Result	
Identification	as per AJI92	conform	
Appearance	white crystals or crystalline powder	conform	
Specific Rotation $[\alpha]_D^{20}$	+8.9° to +9.5°	+9.2°	
State of Solution	clear and colorless	99.1%	
	not less than 98.0%		
Chloride (Cl)	16.66% to 17.08%	16.8%	
Ammonium (NH <sub>4</sub> )	not more than 0.02%	<0.02%	
Sulfate (SO <sub>4</sub> )	not more than 0.020%	<0.02%	
Iron (Fe)	not more than 10ppm	<10ppm	
Heavy metals (Pb)	not more than 10ppm	<10ppm	
Arsenic (As <sub>2</sub> O <sub>3</sub> )	not more than 1ppm	<1ppm	
Other amino acids	conforms	conform	
Loss on drying	not more than 0.20%	0.13%	
Residue on Ignition	not more than 0.10%	0.04%	
Assay	99.0% to 101.0%	99.65%	
pH	3.5 to 4.5	3.8	
Conclusion: The products conform to AJI92 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			