



Specialized in chemicals

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Certificate of Analysis

Product	L-Serine	Batch Number	TNJ2015090212
CAS No.	56-45-1	Packing	25.00kg/drum
M.F.	C3H7NO3	MFG Date	Feb.10, 2015
M.W.	105.09	Analysis Date	Feb.11, 2015
N.W.	3,000.00kg	Retest Date	Feb.09, 2017
G.W.	3,280.00kg		

<u>Sr. No.</u>	<u>Items</u>	<u>Specification</u>	<u>Results</u>
01	Appearance	White crystalline powder	Confirms
02	Specific optical rotation, $[\alpha]_{D20}^0$	+14.0°~+15.50°	+14.80°
03	Loss on Drying, %	≤0.20	0.06
04	Heavy metals, %	≤0.015	0.013
05	Chloride, %	≤0.02	Confirms
06	Iron (Fe), %	≤0.02	0.01
07	Sulfate (SO4), %	≤0.02	Confirms
08	Residue on Ignition, %	≤0.10	0.06
09	Chromatographic purity, %		
	Single impurity	≤0.50	Confirms
10	Total impurity	≤2.00	
11	Assay, %	98.50~101.00	99.48

Prepared by Dong Mei

Checked by Wang Tianyi

Approved by Liu Wu

Conclusion The Quality of the above said is in conformity with **USP34**

Storage Stored in dry and ventilation place, far from heat and water.

COA Issuer Quality Control Team-Technology Department

