

CERTIFICATE OF ANALYSIS

Product Name:	L-Cysteine HCl Monohydrate	Report Date:	Mar 23, 2017
Formula:	C ₃ H ₇ NO ₂ S•HCl•H ₂ O	Batch No.:	170320
CAS No.:	7048-04-6	Manu. Date:	Mar 20, 2017
Inspection Standard:	EP7	Exp. Date:	Mar 19, 2019

RESULTS OF ANALYSIS

Test Items	Specifications	Results
Appearance	A white, crystalline powder or colourless crystals, freely soluble in water, slightly soluble in alcohol, practically insoluble in ether. Fine, homogeneous, free flowing and with no evidence of hard lumps, Characteristic acidic smell. Free from any putrid, rancid, sour or foreign "off" odors	Conforms
Identification	Infrared Absorption	Conforms
Specific rotation $[\alpha]_{D}^{25P}$	+5.5° to +7.0°	+6.3°
Appearance of solution	Clear and not more intensely coloured than reference solution BY ₆	Conforms
Ninhydrin-positive substances	By TLC, not more than 0.5%	<0.5%
Sulfate(SO ₄)	Not more than 300ppm	<300ppm
Ammonium(NH ₄)	Not more than 200ppm	<200ppm
Chloride(Cl)	10.8% to 20.90%	20.0%
Iron(Fe)	Not more than 20ppm	<20ppm
Heavy metals	Not more than 10ppm	<5ppm
Lead	Not more than 3mg/kg (3ppm)	<3ppm
Loss on drying	8.0% to 12.0%	12.0%
Residue on ignition	Not more than 0.1%	0.06%
Assay	98.5 to 101.5 %	99.8%
Mesh size	100% through 12Mesh	Conforms
Conclusion:	Conforms to the specifications of EP7	

Analyst: **侯健之**Auditor: **辽薛兰**Chief of QC: **于铁梅**