


CERTIFICATE OF ANALYSIS

Product Name:	D-Cysteine HCl Monohydrate	Report Date:	Aug 04, 2017
Formula:	C ₃ H ₇ NO ₂ SHClH ₂ O	Batch No.:	170802
CAS No.:	32443-99-5	Manu. Date:	Aug 02, 2017
Inspection Standard:	AJI92	Exp. Date:	Aug 01, 2019

RESULTS OF ANALYSIS

Test Items	Specifications	Results
Appearance	White crystals or crystalline powder	Conforms
Specific rotation $[\alpha]_D^{20}$	-5.5° to -7.0°	-6.0°
Identification	Infrared Absorption	Conforms
State of solution (Transmittance)	Clear and colorless Not less than 98.0%	99.5%
Chloride (Cl)	19.89% to 20.29%	20.02%
Ammonium (NH ₄)	Not more than 0.02%	<0.02%
Sulfate (SO ₄)	Not more than 0.020%	<0.020%
Iron (Fe)	Not more than 10ppm	<10ppm
Heavy Metals (Pb)	Not more than 10ppm	<10ppm
Arsenic	Not more than 1ppm	<1ppm
Other amino acids	Chromatographically not detectable	Conforms
Loss on drying	8.5% to 12.0%	10.20%
Residue on ignition (sulfated)	Not more than 0.10%	0.04%
Assay	98.5% to 100.5%	99.2%
Conclusion:	Conforms to the specifications of AJI92.	

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