

# CERTIFICATE OF ANALYSIS

Product Name:	L-Cystine (Non Animal Source/ Vegan)	Report Date:	Aug 12, 2017
Formula:	C <sub>6</sub> H <sub>12</sub> N <sub>2</sub> O <sub>4</sub> S <sub>2</sub>	Batch No.:	170809
CAS No.:	56-89-3	Manu. Date:	Aug 09, 2017
Inspection Standard:	FCC10	Exp. Date:	Aug 08, 2019

## RESULTS OF ANALYSIS

Item	Specifications	Results	Methods
Appearance	White crystals or crystalline powder	Conforms	Visual
Identification	Infrared absorption spectrum	Conforms	FCC Appendix IIC
Assay	98.5 to 101.5 %	99.3%	Nitrogen Determination Appendix IIC
Lead (Pb)	Not more than 3ppm	<3ppm	AFS
Loss on Drying	Not more than 0.2%	0.08%	FCC Appendix IIC: 105 for 3 h
Residue on ignition (sulfated)	Not more than 0.1%	0.06%	FCC Appendix IIC
Specific rotation [ $\alpha$ ] <sub>D</sub> <sup>20</sup>	-215 to -225°	-218°	FCC Appendix IIB
Heavy metals (Pb)	Not more than 20ppm	<20ppm	AJI
Chloride(Cl)	Not more than 800ppm	<800ppm	AJI
Sulfate(SO <sub>4</sub> )	Not more than 500ppm (In-house)	<800ppm	AJI
Mesh Size	100% pass 20 mesh	Conforms	/
<b>Conclusion:</b>	Conforms to the specifications of FCC10		

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