


CERTIFICATE OF ANALYSIS

Product Name:	L-Tryptophan	Report Date:	Aug 04, 2017
Formula:	C ₁₁ H ₁₂ N ₂ O ₂	Batch No.:	170802
CAS No.:	73-22-3	Manu. Date:	Aug 02, 2017
Inspection Standard:	USP38	Exp. Date:	Aug 01, 2019

RESULTS OF ANALYSIS

Test Items	Specifications	Results
Description	White crystals or crystalline powder	Conforms
Identification	Infrared Absorption	Conforms
Specific rotation $[\alpha]_D^{25}$	-29.7 to -32.7°	-31.7°
pH	5.5 to 7.0	5.7
Loss on drying	Not more than 0.3%	0.20%
Residue on ignition	Not more than 0.1%	0.08%
Chloride(Cl)	Not more than 0.05%	< 0.05%
Sulfate(SO ₄)	Not more than 0.03%	<0.03%
Iron(Fe)	Not more than 30ppm	<30ppm
Heavy metals(Pb)	Not more than 15ppm	<15ppm
Organic Volatile Impurity	Meets the requirements	Conforms
Assay	98.5 to 101.5%	99.3%
Conclusion:	Conforms to the specifications of USP38	

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