



CERTIFICATE OF ANALYSIS

Product	L-Glutamine
Grade	USP
Product Code	GB0224
Formula	$C_5H_{10}N_2O_3$
MW	146.15
CAS#	56-85-9
Lot No	

Test Items	Specifications	Results
Appearance	White crystalline powder	
Identification(IR)	Concordant with the reference	
Assay	98.5 – 101.5%	
Specific Rotation $[\alpha]^{20}$	+34.2° - +36.2°	
Chloride	≤0.05%	
Sulfate	≤0.03%	
Loss on drying	≤0.3%	
Residue on ignition	≤0.3%	
Iron	≤30ppm	
Heavy metal (Pb)	≤15ppm	
Chromatographic purity	Conforms	
Organic volatile impurities	Meet the requirement	

Storage: Store at room temperature. Protect from moisture.