



Specialized in chemicals

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Certificate of Analysis

Product	L-Glutamine		
CAS No.	56-85-9	Batch Number	TNJ2015090212
Packing	25kg /drum	N.W.	200.00kg
G. W.	224.00kg	MFG Date	Feb.10, 2015
Expiry	Apr.20, 2016	Analysis Date	Feb.11, 2015

Items	Specification	Results
Appearance	White crystalline or crystalline powder	Conforms
Identification (IR)	Concordant with reference spectrum	Conforms
Assay, %	98.50 ~ 101.50	99.20
Specific Rotation (a) _d ²⁵	+6.3° ~ +7.3°	+6.53°
Chloride (Cl), %	≤0.05	<0.05
Sulfate (SO ₄), %	≤0.03	<0.03
Iron (Fe), ppm	≤30	<30
Heavy Metals, ppm	≤15	<15
Loss on Drying, %	≤0.3	0.04
Residue on Ignition, %	≤0.3	0.08
Chromatographic purity	Conforms	Conforms
Organic volatile impurities	Meets the requirements	Conforms

Checker	Xu Dong	Rechecker	Lu Xiaoping	Approval	Du Yi
Conclusion	The Quality of the above said is in conformity with USP30 Standards				
COA Issuer	Quality Control Team-Technology Department of Hefei TNJ Chemical Industry Co.,Ltd.				



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