



## Certificate of Analysis

1 Reagent Lane  
Fair Lawn, NJ 07410  
201.796.7100 tel  
201.796.1329 fax

ThermoFisher Scientific's Quality System has been found to conform to Quality Management System  
Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. ThermoFisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. ThermoFisher does not maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	J16285	Quality Test / Release Date	09/04/2018
Lot Number	183777		
Description	L-GLUTAMINE, ULTRAPURE		
Country of Origin	Brazil	Suggested Retest Date	Sep/2023
Chemical Origin			
BSE/TSE Comment			
Chemical Comment			

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystalline powder
ARSENIC (As)	ppm	<= 3	<1
ASSAY	%	>= 98.5	100.3
CHLORIDE	%	<= 0.021	<0.02
LOSS ON DRYING @ 105 C	%	<= 0.2	<0.2
SULFATE (SO4)	%	<= 0.028	<0.02
IDENTIFICATION, I.R.	Matches Reference	= MATCHES REFERENCE	MATCHES REFERENCE
IGNITION RESIDUE	%	<= 0.1	<0.1
IRON (Fe)	ppm	<= 10	<10
SPECIFIC ROTATION @ 20 DEG	DEGREES	Inclusive Between +6.3 - +7.3	6.7
HEAVY METALS	ppm	<= 10	<10

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.  
If there are any questions with this certificate, please call at (800) 227-6701.

\*Based on suggested storage condition.