

Title: L-Glutamine 800 mg	
Allergy Research Group® / NutriCology®	
Document No.: 44050	Revision: 001

Bulk Product Specification

Part Number	44050		
Lot Number	00408		
Storage Condition	Room Temperature		
Shelf Life	36 months	Expiration Date	MAY2023
Bulk Certificate of Analysis	Required		

ANALYSIS

Physical

Attribute	Method / SOP	Specification	Test Result
Product Color & Size	QC011	Clear, white fill, size "00"	Complies
Product Weight Variation	SOP 514	Meets USP <2091> 873 - 1067 mg	972 mg
Disintegration time	SOP 522	Meets USP <2040>	Passes, 14:30 mins

Purity/Strength per Capsule

Active Ingredients	Label Claim	Release Limits	Test Result
L-Glutamine	800 mg	100 – 150 % of LC	805 mg/capsule
Other Ingredients: Hydroxypropyl methylcellulose, Microcrystalline Cellulose, L-Leucine			

*Production and Process Control


Identification \ Chemical \ Heavy Metals

Attribute	Method / SOP	Specification	Test Result
Identity	Bulk Certificate of Analysis Review	Approved	Approved
Identity	Near Infrared Spectroscopy	Matches reference	Complies
Arsenic (inorganic)	ICP-MS per USP <2232>	Perform and report †	0.079 µg/capsule
Cadmium	ICP-MS per USP <2232>	Perform and report †	< 0.001 µg/capsule
Mercury (total)	ICP-MS per USP <2232>	Perform and report †	0.006 µg/capsule
Lead	ICP-MS per USP <2232>	Perform and report †	0.004 µg/capsule

†Customer to further evaluate the metal exposure per daily serving size

Microbiology

Attribute	Method / SOP	Specification	Test Result
Total Aerobic Count	USP/ AOAC/ FDA BAM	≤ 1 x 10 ⁵ CFU/g	< 10 CFU/g
Total Yeast & Mold	USP/ AOAC/ FDA BAM	≤ 1 x 10 ⁴ CFU/g	< 10 CFU/g
Coliform	USP/ AOAC/ FDA BAM	≤ 1 x 10 ³ CFU/g	< 10 CFU/g
Escherichia coli	USP/ AOAC/ FDA BAM	None Detected	None Detected
Staphylococcus aureus	USP/ AOAC/ FDA BAM	None Detected	None Detected
Salmonella	USP/ AOAC/ FDA BAM	None Detected	None Detected

Approval:		Digitally signed by Kimberly Vennebush Date: 2020.06.24 11:04:24 -06'00'
		Date: 24JUN2020

If you liked our service, please tell a friend. If you didn't, please tell us!

Test Certificate

 Description: L-Glutamine
 Sample ID: 44050/00408
 Lot No:
 Location:
 Received: 5/21/2020
 Completed: 5/29/2020

 Client: Allergy Research Group
 2300 S Main St
 Salt Lake City, UT 84115

Lab No: 196841-01

Analysis	Result	Per Unit	Specifications	Method
Mercury	0.006	µg/g	< 0.5 µg/g	ICP-MS USP <730>
Lead	0.004	µg/g	< 0.5 µg/g	ICP-MS USP <730>
Arsenic	0.081	µg/g	< 0.5 µg/g	ICP-MS USP <730>
Cadmium	< 0.001	µg/g	< 0.5 µg/g	ICP-MS USP <730>
Total Aerobic Microbial Count	< 10	CFU/g	<= 1,000 CFU/g	USP <2021>
Coliform	< 10	CFU/g	<= 100 CFU/g	AOAC 991.14
E.Coli	Absent	per 10 grams	Absent	USP <2022>
Staphylococcus aureus	Absent	per 10 grams	Absent	USP <2022>
Salmonella	Absent	per 10 grams	Absent	USP <2022>
Total Yeast & Mold	< 10	CFU/g	<= 100 CFU/g	USP <2021>
Yeast *	< 10	CFU/g	<= 100 CFU/g	USP <2021>
Mold *	< 10	CFU/g	<= 100 CFU/g	USP <2021>

* For informational purposes only.

THESE RESULTS APPLY ONLY TO THE SAMPLE SUBMITTED AND NOT TO THE PRODUCT FROM WHICH IT WAS TAKEN. THESE RESULTS ARE PROVIDED ONLY FOR THE BENEFIT OF CLIENT, WITHOUT REPRESENTATION OR WARRANTY OF ANY KIND, EXCEPT FOR THE EXPRESS LIMITED WARRANTY PROVIDED SOLELY TO CLIENT IN ADVANCED LABORATORIES' TERMS OF SERVICE.

THIS CERTIFICATE SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT WRITTEN APPROVAL FROM ADVANCED LABORATORIES.

 Results Approved By: 
 Kristina Noll - Quality Technician

Dated: 5/29/2020

Printed: 5/29/2020 1:49:30 PM





Micro Quality Labs, Inc.

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Customer: Allergy Research Group, LLC
Address: 2300 North Loop Road
Alameda, CA 94502

ANALYTICAL/CHEMICAL CERTIFICATE OF ANALYSIS

Sample Name: L-GLUTAMINE
Product Code: 44050
Batch/Lot: 00408
MQL Accession: 200612-0366

PO#: 77705
Sample Description: BULK
Rush: N/A
Received Date: 06/12/20

Test Requested:	Test Method:	Specification:	Results:
L-Glutamine (Glutamine)	MQLTM-0198 By GC-FID	100-150% of 800 mg	805 mg

Prepared By:


Diana Zavala, Document Control Specialist

JUN 23 2020

06/23/20

Reviewed By:


Sade Rodriguez/Quality Assurance Reviewer

JUN 23 2020

06/23/20

The aforementioned results on this report are representative of the samples submitted and may not be indicative of the entire manufacture, batch, and/or lot. Applicable current GMP's shall always be used when sampling. GLP's shall always be practiced by Micro Quality Labs to ensure the most accurate results.

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