

Title: L-Lysine 500 mg, 100 Vegetarian Capsules	
Allergy Research Group® / NutriCology®	
Document No.: 70600CA	Revision: 008

Certificate of Analysis

Part Number	70600		
Lot Number	90705		
Product Count & Form	100 Vegetarian Capsules		
Packaging, Closure	225 cc bottle, desiccant, rayon/cotton		
Storage Condition	Room Temperature		
Shelf Life	36 months	Expiration Date	07/22
Label Number, Size	70600L, D		
Retain Sample	2 bottles total		

ANALYSIS

Physical

Attribute	Method / SOP	Specification	Test Result
Product Color, Size	SOP 515	White, clear size "00"	Complies
Product Weight	SOP 514	Meet USP <2091> 730 – 1000 mg	Passes, 820 mg
Disintegration Time	SOP 522	Meet USP <2040>	Passes, 15:45 min.

Purity / Strength per Capsule

Active Ingredient	Label Claim	Specification	Test Result
L-Lysine HCl	500 mg	100-150% LC by HPLC	536 mg
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	Matches reference
Arsenic (inorganic)	ICP-MS per USP <2232>	≤ 15 mcg/day Ψ	0.340 mcg/day Ψ
Cadmium	ICP-MS per USP <2232>	≤ 5 mcg/day Ψ	BQL Ψ
Mercury (total)	ICP-MS per USP <2232>	≤ 15 mcg/day Ψ	BQL Ψ
Lead	ICP-MS per USP <2232>	≤ 10 mcg/day Ψ	BQL Ψ

Ψ – Permitted Daily Exposure, *Production and Process Control, BQL – Below Quantitative Level

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Microbiology

Attribute	Method / SOP	Specification	Test Result
Total Aerobic Count	USP/ AOAC/ FDA BAM	$\leq 1 \times 10^3$ CFU/g	<10 CFU/g
Total Yeast & Mold	USP/ AOAC/ FDA BAM	$\leq 1 \times 10^2$ CFU/g	<10 CFU/g
Coliform	USP/ AOAC/ FDA BAM	$\leq 1 \times 10^2$ 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

*Production and Process Control

Approval: 	Date: 08/22/13
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Micro Quality Labs, Inc.

Specializing in Pharmaceutical, Dietary Supplements, Toys and Cosmetics Testing
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E-Mail: Karine@MicroQualityLabs.com

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

ANALYTICAL/CHEMICAL CERTIFICATE OF ANALYSIS

Sample Name: **L-LYSINE**
Product Code: 40600
Batch/Lot: 90709
MQL Accession: 190730-0155

PO#: LJ07262019
Sample Description: FG
Rush: N/A
Received Date: 07/30/19

Test Requested:	Test Method:	Specification:	Results:
L-Lysine	MQLTM-0198 By GC-FID	NLT 500 mg / capsule	536 mg / capsule

Prepared By:


Kendra Hensley/Document Control Specialist

AUG 02 2019

08/02/19

Reviewed By:

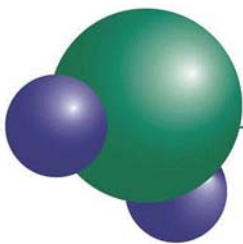

Raffie Avakian/Quality Assurance Reviewer

AUG 02 2019

08/02/19

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.

This report is submitted for the exclusive use of the person, partnership, or corporation to whom it is addressed, and neither the report nor the name of Micro Quality Labs, Inc. nor any member of its staff, may be used in connection with the advertising or sale of any product or process without written authorization from Micro Quality Labs, Inc. Failure to comply will result in immediate legal action by Micro Quality Labs, Inc.



Analytical Report

August 01, 2019

Tuyen Luong
Allergy Research Group/NutriCology
2300 North Loop Road
Alameda, CA 94502

Page 1 of 1
WO Number: W19G1000

Client: Allergy Research Group-QC
Client #: A5537-T
Sample Type: Capsule
Collector: Client

Customer PO: LJ07262019
Date Received: 7/29/2019
Date Completed: 08/01/2019
Discard Date: 08/15/2019

CSL#: 19G2390 L-Lysine - Lot#: 40600/ 90709

Parameter	Result	PQL	Method	Date	Analyst
Arsenic	0.065 ug/g	0.050	ICP MS	07/30/19	JTP
Cadmium	<0.050 ug/g	0.050	ICP MS	07/30/19	JTP
Lead	<0.050 ug/g	0.050	ICP MS	07/31/19	JTP
Mercury	<0.050 ug/g	0.050	ICP MS	07/30/19	JTP

CSL#: 19G2390

Parameter	Result	Serving Size	Unit Weight	Specification
Arsenic	0.07 ug/g	1 Capsule	0.81 g	<0.50 ug/g
Cadmium	<0.05 ug/g	1 Capsule	0.81 g	<0.50 ug/g
Lead	<0.05 ug/g	1 Capsule	0.81 g	<0.50 ug/g
Mercury	<0.05 ug/g	1 Capsule	0.81 g	<0.50 ug/g

Respectfully Submitted,
Chemical Solutions, Ltd.

QA Representative

Notes:

CONFIDENTIAL REPORT. This report is confidential and is for the sole use of the addressee.
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The units for the PQL are the same as those shown for the result.



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Project Description: Product Testing (PO # LJ07262019)
Report Issued To: Allergy Research Group
2300 North Loop
Alameda, CA 94501
Contact: Janice Vu

Certificate of Analysis

AEMTEK #: 19071486

Sampling Date: 2019-07-26
Sample Received: 2019-07-29
Analysis Started: 2019-07-29
Analysis Performed By: MM, JC, WY
Report Issue Date: 2019-08-01

Sample ID	Analyte	Aerobic Plate Count	Total Coliforms	Yeast	Mold	Escherichia coli	Salmonella	Staphylococcus aureus
2	L-Lysine	AOAC OMA 990.12 CFU/g 10	AOAC OMA 991.14 CFU/g 10	AOAC OMA 2014.05 CFU/g 10	AOAC OMA 2014.05 CFU/g 10	USP 37 <62> (mod.) per 10g P/A	USP 37 <62> (mod.) per 10g P/A	USP 37 <62> (mod.) per 10g P/A
RESULTS								
		<10	<10	<10	<10	ND	ND	ND

Terminology:

CFU = Colony Forming Units
< Indicates less than the reporting limit as noted
ND = Not Detected, negative, absent. Sensitivity is about 1 organism per test portion.
BAM = FDA Bacteriological Analytical Manual
AOAC OMA = Official Methods of Analysis of the AOAC International, 18th ed.

MPN = Most Probable Number
P/A = Presence/Absence
CP Staph = Coagulase Positive Staphylococci (Staphylococcus aureus)
CMMEF = Compendium of Methods for the Microbiological Examination of Foods, 4th ed.
AOAC RI = AOAC Research Institute Performance Tested.

N/A = Not Applicable or not analyzed

A 08/01/19