

Title: Pantethine, 60 Capsules	
Allergy Research Group® / NutriCology®	
Document No.: 75000CA	Revision: 008

Certificate of Analysis

Part Number	75000		
Lot Number	00601		
Product Count & Form	60 Vegetarian Capsules		
Packaging, Closure	150 cc bottle, desiccant, rayon/cotton		
Storage Condition	Room Temperature		
Shelf Life	24 months	Expiration Date	03/2022
Label Number, Size	75000L, M		
Retain Sample	2 bottles total		

ANALYSIS

Physical

Attribute	Method / SOP	Specification	Test Result
Product Color & Size	QC011	White, clear size "00"	Complies
Product Weight Variation	SOP 514	Meets USP <2091> 650- 820 mg	Passes, 740 mg
Disintegration Time	SOP 522	Meets USP <2040>	Passes, 18:00 mins.

Purity/Strength per Capsule

Active Ingredients	Label Claim	Release Limits	Test Result
Pantesin (Pantethine 330 mg)	600 mg Pantesin (330 mg Pantethine)	100-150% LC by HPLC	351.2
Other Ingredients			
HPMC, 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>	≤ 15 mcg/day Ψ	0.113 mcg/day
Cadmium	ICP-MS per USP <2232>	≤ 5 mcg/day Ψ	0.009 mcg/day
Mercury (total)	ICP-MS per USP <2232>	≤ 15 mcg/day Ψ	BQL
Lead	ICP-MS per USP <2232>	≤ 10 mcg/day Ψ	0.034 mcg/day

BQL – Below Quantitative Level, Ψ – Permitted Daily Exposure, φ - Complies with California Proposition 65 Limits, *Production and process control

Title: **Pantethine, 60 Capsules**

Allergy Research Group® / NutriCology®

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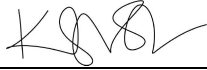
Revision: 008

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	< 3 CFU/g
Escherichia coli	USP/ AOAC/ FDA BAM	None Detected	Not Detected
Staphylococcus aureus	USP/ AOAC/ FDA BAM	None Detected	Not Detected
Salmonella	USP/ AOAC/ FDA BAM	None Detected	Not Detected

*Production and process control

Approval:



Digitally signed by Kimberly Vennebush
Date: 2020.05.26 11:18:43 -06'00'

Date: 26MAY2020



40 West Louise Ave., Salt Lake City, UT 84115
 Phone: (801) 485-1800 Fax: (801) 484-9211
 Email: utlab@advancedlabsinc.com
FDA Registration #14353128308

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

Test Certificate

Description: Pantethine
 Sample ID: 45000/00601
 Lot No:
 Location:
 Received: 3/26/2020
 Completed: 3/31/2020

Client: Allergy Research Group
 2300 N Loop Rd.
 Alameda, CA 94502

Lab No: 192099-01

Analysis	Result	Per Unit	Specifications	Method
Total Aerobic Microbial Count	<10	CFU/g	<= 1,000 CFU/g	USP <2021>
Coliform	<3	MPN/g	<= 100 MPN/g	FDA BAM
E.Coli	<3	MPN/g	< 3 MPN/g	FDA BAM
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	
Mold *	<10	CFU/g	<= 100 CFU/g	

FDA BAM Method Utilized: 10g sample size

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: 
 Alisa Farnsworth-Quality Technician

Dated: 3/31/2020

Printed: 3/31/2020 9:44:38 PM





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Email: utlab@advancedlabsinc.com
FDA Registration #14353128308

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

Test Certificate

Description: Pantethine
Sample ID: 45000/00601
Lot No:
Location:
Received: 4/22/2020
Completed: 4/27/2020

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

Lab No: 194193-01

Analysis	Result	Per Unit	Specifications	Method
E. Coli	Absent	per 10 grams	Absent	USP <2022>

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Results Approved By: 
Kristina Noll - Quality Technician

Dated: 4/27/2020

Printed: 4/27/2020 10:23:58 AM



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Test Certificate

Description: Pantethine
Sample ID: 45000/00601
Lot No:
Location:
Received: 3/26/2020
Completed: 4/2/2020

Client: Allergy Research Group
2300 N Loop Rd.
Alameda, CA 94502

Lab No: 192101-01

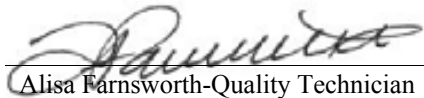
Analysis	Result	Per Unit	Specifications	Method
Mercury	< 0.001	µg/g	< 0.5 µg/g	ICP-MS USP <730>
Lead	0.031	µg/g	< 0.5 µg/g	ICP-MS USP <730>
Arsenic	0.045	µg/g	< 0.5 µg/g	ICP-MS USP <730>
Cadmium	0.003	µg/g	< 0.5 µg/g	ICP-MS USP <730>
† Pantethine	351.2	mg/capsule	>= 330 mg/capsule	HPLC

Pantethine analysis performed using HPLC by method adapted from Chu, K.O. and Tin, K.C., "Analysis of Commercial Multi-Vitamin Preparation by HPLC with Diode Array Detector," as published in Analytical Letters, Vol.31, No.15, pp.2707- 2715, 1998; utilizing sample dissolved in 5mM-potassium dihydrogen phosphate and 5% aqueous acetonitrile adjusted to pH 5.6 (A) with sonication and analyzed on an Alltech Alltima C18 5 µm column (25 cm*4.6 mm i.d.) with gradient elution (1 ml/min) using A and 5mM-potassium dihydrogen phosphate and 50% aqueous acetonitrile adjusted to pH 5.6 (B) from 100% A (0-18 min) to 50% A 50% B (18-30 min, then maintained constant from 30-40 min) to 100% B (40-41 min, then maintained constant from 41-50 min) with diode array detection. Authentic chemical reference material obtained from Sigma-Aldrich.

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Results Approved By:


Alisa Farnsworth-Quality Technician

Dated:

4/2/2020

Tests marked with † were done at Atlas Bioscience Labs, LLC, a joint venture with Advanced Laboratories. -
1775 S. Pantano Rd - Ste #110, Tucson, AZ 85710

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