

Title: <b>Saw Palmetto Complex with Lycopene</b>	
Allergy Research Group® / NutriCology®	
Document No.: 70730CA	Revision: 007

## Certificate of Analysis

<b>Part Number</b>	70730		
<b>Lot Number</b>	L0109		
<b>Product Count &amp; Form</b>	60 Softgels		
<b>Packaging, Closure</b>	175 cc bottle, desiccant		
<b>Storage Condition</b>	Room Temperature		
<b>Shelf Life</b>	24 months	Expiration Date	04/22
<b>Label Number, Size</b>	70730L, C		
<b>Retain Sample</b>	2 bottles per label (4 bottles total)		

### ANALYSIS

#### Physical

Attribute	Method / SOP	Specification	Test Result
Product Color, Size	SOP 515	Oblong, med. carob shell, size 22	Complies
Product Weight Variation	SOP 514	Meets USP <2091> Expected 1650 – 1840 mg	1738 mg
Disintegration Time	SOP 522	Meets USP <2040>	Pass, 15 mins†

†Per CMO CofA

#### Purity/Strength per Softgel

Active Ingredients	Label Claim	Release Limits	Test Result
Saw Palmetto Berry Extract (85%-95% Fatty Acids)	160 mg	100-150% LC by HPLC	100-150% LC by HPLC*
Beta Sitosterol > 40%, Plant Phytosterols	60 mg	100-150% LC by HPLC	100-150% LC by HPLC*
Zinc (Citrate Dihydrate)	5 mg	100-150% LC by ICP-EOS	11 mg
Lycopene	7.5 mg	100-150% LC by HPLC	8.121 mg
Pumpkin Seed oil	0.75 g	100-150% LC by input	100-150% LC by input*

#### Other Ingredients

Gelatin, Glycerin, Silicon Dioxide, Purified Water, Carob Extract, Zinc Oxide

\*Production and Process Control, †refer to 130TR for technical report and calculation, Zinc result higher due to matrix ingredients; †† 17OOS-17

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**Identification \ Chemical \ Heavy Metals**

Attribute	Method / SOP	Specification	Test Result
Identity	Bulk Certificate of Analysis Review	Approved	Approved
Identity	Near Infrared Spectrometry	Matches Reference	Complies
Arsenic (inorganic)	ICP-MS per USP <2232>	≤ 15 µg/day Ψ	BQL
Cadmium	ICP-MS per USP <2232>	≤ 5 µg/day Ψ	BQL
Mercury (total)	ICP-MS per USP <2232>	≤ 15 µg/day Ψ	BQL
Lead	ICP-MS per USP <2232>	≤ 10 µg/day Ψ	BQL

Below Quantitation Level, Ψ -Permitted Daily Exposure, φ - Complies with California Proposition 65 Limits

\*Production and Process Control

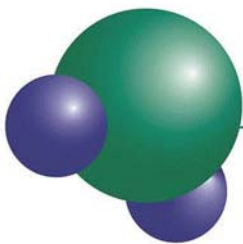
**Microbiology**

Attribute	Method / SOP	Specification	Test Result
Total Aerobic Count	USP/ AOAC/ FDA BAM	≤ 1 x 10 <sup>7</sup> CFU/g	20 CFU/g
Total Yeast & Mold	USP/ AOAC/ FDA BAM	≤ 1 x 10 <sup>5</sup> CFU/g	< 10 CFU/g
Coliform	USP/ AOAC/ FDA BAM	≤ 1 x 10 <sup>4</sup> CFU/g	< 10 CFU/g
Escherichia coli	USP/ AOAC/ FDA BAM	None Detected	Negative
Staphylococcus aureus	USP/ AOAC/ FDA BAM	None Detected	Negative
Salmonella	USP/ AOAC/ FDA BAM	None Detected	Negative

Upon presence of Escherichia coli, determine if colonies are enterovirulent. There is a zero tolerance for the presence of enterovirulent Escherichia coli.

\*Production and Process Control

Approval: 	Date: 05123119
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**chemical solutions ltd.**<sup>®</sup>

*trace elemental analysis*

## Analytical Report

May 10, 2019

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

Page 1 of 1  
WO Number: W19E0194

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

Customer PO: MH05032019  
Date Received: 5/6/2019  
Date Completed: 05/10/2019  
Discard Date: 05/24/2019

**CSL#: 19E0492 Palmetto Complex - Lot#: 40730/19040109**

Parameter	Result	PQL	Method	Date	Analyst
Arsenic	<0.050 ug/g	0.050	ICP MS	05/09/19	JTP
Cadmium	<0.050 ug/g	0.050	ICP MS	05/09/19	JTP
Lead	<0.050 ug/g	0.050	ICP MS	05/08/19	ARB
Mercury	<0.050 ug/g	0.050	ICP MS	05/09/19	JTP
Zinc	5,730 ug/g	0.50	ICP MS	05/08/19	HG

**CSL#: 19E0492**

Parameter	Result	Serving Size	Unit Weight	Specification
Arsenic	<0.05 ug/g	1 Soft Gel	1.85 g	<0.50 ug/g
Cadmium	<0.05 ug/g	1 Soft Gel	1.85 g	<0.50 ug/g
Lead	<0.05 ug/g	1 Soft Gel	1.85 g	<0.50 ug/g
Mercury	<0.05 ug/g	1 Soft Gel	1.85 g	<0.50 ug/g
Zinc	11 mg/soft gel	1 Soft Gel	1.85 g	5 mg/Soft Gel

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 # MH05032019)  
**Report Issued To:** Allergy Research Group  
2300 North Loop  
Alameda, CA 94501  
**Contact:** Janice Yu

### Certificate of Analysis

**AEMTEK #: 1905233**

**Sampling Date:** 2019-05-03  
**Sample Received:** 2019-05-06  
**Analysis Started:** 2019-05-06  
**Analysis Performed By:** EM, MM, JC, WY  
**Report Issue Date:** 2019-05-09

Sample ID	Analyte	Aerobic Plate Count	Total Coliforms	Yeast	Mold	Escherichia coli	Salmonella	Staphylococcus aureus
6	Method Description Palmetto Complex	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
<b>RESULTS</b>								
		20	<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

*JK 05105115*





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 Email: utlab@advancedlabsinc.com  
 FDA Registration #3006423386

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

## Test Certificate

Description: Palmetto Complex  
 Sample ID:  
 Lot No: 40730/19040109  
 Part Code:  
 Location:  
 PO No: MH05032019  
 Received: 5/6/2019

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

Lab No: 171097-04  
 Completed: 5/13/2019

Analysis	Result	Per Unit	Specifications	Method
†Lycopene	8.121	mg/softgel	>= 7.5 mg/softgel	HPLC

Analysis performed on a composite sample made from ten softgels.  
 Average fill weight = 1207.1 mg

Lycopene analysis performed using HPLC by method adapted from Steghens, J.P., vanKappel, A.L., Riboli, E., Collombel, C., "Simultaneous Measurement of Seven Carotenoids, Retinol and Alpha-tocopherol by High-Performance Liquid Chromatography," as published in the Journal of Chromatography, B: Biomedical Applications, 694: 71-81, 1997; utilizing a sample mixed 0.2 ml ethanol then shaken for 5 min. H<sub>2</sub>O (0.2 ml) and hexane (0.5 ml) were added and shaken for 5 min, and the organic phase separated. After second extraction with 0.3 ml hexane, combined extract was evaporated in vacuo and residue was dissolved in 0.3 ml hexane/ethanol/methanol (1:5:44). This solution was analyzed on two columns of 3 µm Adsorbosphere HS C18 (10 cm \* 4.6 mm i.d. and 15 cm \* 4.6 mm i.d. in series) at 37°C. The mobile phase (0.9 ml/min) was methanol/acetonitrile (2:3), containing 0.5% acetic acid for 7.1 min, then a step gradient to 24% of CH<sub>2</sub>Cl<sub>2</sub> in the same solvent for 10.3 min, with detection at 292, 325, 450 and 473 nm. Authentic chemical reference material obtained from Sigma-Aldrich.

**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: 5/13/2019

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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