

Title: <b>Pycnogenol® 100, 30 vegetarian capsules</b>	
Allergy Research Group* / NutriCology*	
Document No.: 77270CA	Revision: 001

## Certificate of Analysis

<b>Part Number</b>	77270		
<b>Lot Number</b>	K 8124		
<b>Product Count &amp; Form</b>	30 Vegetarian Capsules		
<b>Packaging, Closure</b>	075 cc bottle, desiccant, rayon/ cotton		
<b>Storage Condition</b>	Room Temperature		
<b>Shelf Life</b>	24 months	Expiration Date	12120
<b>Label Number, Size</b>	77270L, M		
<b>Retain Sample</b>	2 bottles per label (4 bottles total)		

### ANALYSIS

#### Physical

Attribute	Method / SOP	Specification	Test Result
Product Color, Size	SOP 515	Clear, size "1"	Complies
Product Weight Variation	SOP 514	Meets USP <2091> 280 – 400 mg	Pass, 307 mg
Disintegration Time	SOP 522	Meets USP <2040>	Pass

#### Purity/Strength per Capsule

Active Ingredients	Label Claim	Release Limits	Test Result
Pycnogenol (contains 65%-75% content of procyanidins)	100 mg	100-150% LC by input	100-150% LC by input*
Procyanidins (dried basis)	NLT 65 mg	NLT 65 mg by UV-Vis	78.9 mg

#### Other Ingredients

Hydroxypropyl Methylcellulose, Silicone dioxide, L-Leucine, Microcrystalline Cellulose.

\* Production and Process Control

#### Identification \ Chemical \ Heavy Metals

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

\* Production and Process control

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**Microbiology**

<b>Attribute</b>	<b>Method / SOP</b>	<b>Specification</b>	<b>Test Result</b>
Total Aerobic Count	USP/ AOAC/ FDA BAM	$\leq 1 \times 10^4$ CFU/g	< 10 CFU/g
Total Yeast & Mold	USP/ AOAC/ FDA BAM	$\leq 1 \times 10^3$ 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

Approval: 	Date: 03/04/19
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## Certificate of Analysis

### Allergy Research Group

2300 North Loop Road  
Alameda California 94502 United States

<b>Sample Name:</b>	<b>Pycnogenol</b>	<b>Eurofins Sample:</b>	<b>8075199</b>
<b>Project ID</b>	ALLER_RE_G-20190121-0004	<b>Receipt Date</b>	21-Jan-2019
<b>PO Number</b>	MH01172019	<b>Receipt Condition</b>	Ambient temperature
<b>Sample Serving Size</b>	1 Cap	<b>Login Date</b>	21-Jan-2019
<b>Description</b>	87270_K8124	<b>Online Order</b>	20

Analysis	Result
<b>Calculated Sample Weight</b>	
Entity Weight	0.3211 g
Entity Fill Weight	0.2476 g
<b>Determination of Proanthocyanidins by UV/Vis Spectrophotometer</b>	
Proanthocyanidins	78.9 mg/Serving Size
<b>Moisture (Karl Fischer method)</b>	
Karl Fischer Moisture	4.01 %

Method References	Testing Location
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Calculated Sample Weight (PREP_BREA)	Food Integrity Innovation-Brea
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Determination of Proanthocyanidins by UV/Vis Spectrophotometer (OC_PRCY_S) USP method 30 P. 965-966	Food Integrity Innovation-Brea
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Moisture (Karl Fischer method) (OC_KFMO_S) The United States Pharmacopeia, Fortieth Revision, <921>, Method 1a, The United States Pharmacopeial Convention, Rockville, MD (2017).	Food Integrity Innovation-Brea
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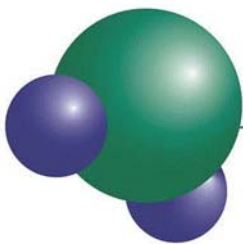
Testing Location(s)	Released on Behalf of Eurofins by
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Food Integrity Innovation-Brea	Robert Grahn - Manager
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Eurofins Food Chemistry Testing US, Inc.  
2951 Saturn Street  
Unit C  
Brea CA 92821  
800-675-8375

Eurofins Food Integrity and Innovation accepts all liability for work conducted as of 01 Aug 2018.

These results apply only to the items tested. This certificate of analysis shall not be reproduced, except in its entirety, without the written approval of Eurofins.



## Analytical Report

January 23, 2019

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

Page 1 of 1  
WO Number: W19A0739

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

Customer PO: MH01172019  
Date Received: 1/18/2019  
Date Completed: 01/23/2019  
Discard Date: 02/06/2019

**CSL#: 19A2161 Pycnogenol - Lot#: 87270/ K8124**

Parameter	Result	PQL	Method	Date	Analyst
Arsenic	<0.050 ug/g	0.050	ICP MS	01/23/19	RBP
Cadmium	<0.050 ug/g	0.050	ICP MS	01/23/19	RBP
Lead	<0.050 ug/g	0.050	ICP MS	01/21/19	JTG
Mercury	<0.050 ug/g	0.050	ICP MS	01/23/19	RBP

**CSL#: 19A2161**

Parameter	Result	Serving Size	Unit Weight	Specification
Arsenic	<0.05 ug/g	1 Capsule	0.31 g	<0.50 ug/g
Cadmium	<0.05 ug/g	1 Capsule	0.31 g	<0.50 ug/g
Lead	<0.05 ug/g	1 Capsule	0.31 g	<0.50 ug/g
Mercury	<0.05 ug/g	1 Capsule	0.31 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.  
This report can only be reproduced in full.  
The units for the PQL are the same as those shown for the result.



# AEMTEK, INC.

466 Kato Terrace,  
Fremont, CA 94539  
Phone: 510-979-1979  
Fax: 510-668-1980  
E-mail: labdata@aemtek.com  
Web: www.aemtek.com

**Project Description:** Product Testing (PO # MH01172019)  
**Report Issued To:** Allergy Research Group  
2300 North Loop  
Alameda, CA 94501  
**Contact:** Janice Vu

## Certificate of Analysis

**AEMTEK #: 1901846**

**Sampling Date:** 2019-01-17  
**Sample Received:** 2019-01-18  
**Analysis Started:** 2019-01-18  
**Analysis Performed By:** JC, MM, EL, FH  
**Report Issue Date:** 2019-01-28

Sample ID	Analyte	Aerobic Plate Count	Total Coliforms	Yeast	Mold	Escherichia coli	Salmonella	Staphylococcus aureus
5	Method Reporting Unit Method Detection Limit for Reporting Sample Description Pycnogenol	AOAC OMA 990.12 CFU/g 10 <10	AOAC OMA 991.14 CFU/g 10 <10	AOAC OMA 2014.05 CFU/g 10 <10	AOAC OMA 2014.05 CFU/g 10 <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>								
	Lot #/Code	87270/ K8124						

**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

*JL 012819*