

Title: **Zinc Citrate 50 mg, 60 Vegetarian Capsules**

Allergy Research Group® / NutriCology®

Document No.:70290CA

Revision: 011

Certificate of Analysis

Part Number	70290		
Lot Number	0366		
Product Count & Form	60 Vegetarian Capsules		
Packaging, Closure	75 cc bottle, desiccant, rayon/cotton		
Storage Condition	Room Temperature		
Shelf Life	36 months	Expiration Date	05/2023
Label Number, Size	70290L, B		
Retain Sample	2 bottles per label (4 bottles total)		

ANALYSIS

Physical

Attribute	Method / SOP	Specification	Test Result
Product Color, Size	QC011	White, clear size "1"	Complies
Product Weight Variation	QC012	Meets USP <2091>: 430 mg – 520 mg	Passes, 446 mg
Disintegration time	SOP 522	Meets USP <2040>	Pass

*Production and process control for HPMC capsules

Purity / Strength per Capsule

Active Ingredient	Label Claim	Release Limit	Test Result
Zinc Citrate	50 mg (elemental) (167 mg formula)	100-150% LC by ICP-OES	52 mg/capsule
Other Ingredients: Hydroxypropyl methylcellulose, microcrystalline cellulose, rice hull concentrate, gum arabic, sunflower oil			

* 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	BQL
Cadmium	ICP-MS per USP <2232>	≤ 5 mcg/day Ψ	0.080 mcg/day
Mercury (total)	ICP-MS per USP <2232>	≤ 15 mcg/day Ψ	BQL
Lead	ICP-MS per USP <2232>	≤ 10 mcg/day Ψ	0.134 mcg/day

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

Microbiology

Attribute	Method / SOP	Specification	Test Result
Total Aerobic Count	USP/ AOAC/ FDA BAM	≤ 1 x 10 ³ CFU/g	< 10 CFU/g
Total Yeast & Mold	USP/ AOAC/ FDA BAM	≤ 1 x 10 ² CFU/g	< 10 CFU/g
Coliform	USP/ AOAC/ FDA BAM	≤ 1 x 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:		Digitally signed by Kimberly Vennebush Date: 2020.07.27 09:07:44 -06'00'	Date: 27JUL2020
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If you liked our service, please tell a friend. If you didn't, please tell us!

Test Certificate

Description: Zinc Citrate 50mg
Sample ID: 40290
Lot No: C0366
Location:
Received: 7/13/2020
Completed: 7/20/2020Client: Allergy Research Group
2300 S Main St
Salt Lake City, UT 84115

Lab No: 199724-01

Analysis	Result	Per Unit	Specifications	Method
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:

7/20/2020

Printed: 7/20/2020 10:18:58 AM



Analytical Report

July 24, 2020

Tuyen Luong
Allergy Research Group/NutriCology
2300 S Main St
Salt Lake City, Utah 84115

Page 1 of 1
WO Number: W20G0581

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

Customer PO: 77775-10
Date Received: 7/20/2020
Date Completed: 07/24/2020
Discard Date: 08/07/2020


CSL#: 20G1303 Zinc Citrate 50mg - Lot#: 40290/C0366

Parameter	Result	PQL	Method	Date	Instrument	Analyst
Arsenic*	<0.10 ug/g	0.10	ICP MS	07/21/20	350X	JTP
Cadmium	0.064 ug/g	0.050	ICP MS	07/20/20	9000-2	JTP
Lead	0.095 ug/g	0.050	ICP MS	07/20/20	DRCe-2	JTP
Mercury	<0.050 ug/g	0.050	ICP MS	07/20/20	9000-2	JTP
Zinc	115,000 ug/g	0.50	ICP MS	07/23/20	9000	TMY

CSL#: 20G1303

Parameter	Result	Serving Size	Unit Weight	Specification
Arsenic*	<0.10 ug/g	1 Capsule	0.45 g	<0.50 ug/g
Cadmium	0.06 ug/g	1 Capsule	0.45 g	<0.50 ug/g
Lead	0.10 ug/g	1 Capsule	0.45 g	<0.50 ug/g
Mercury	<0.05 ug/g	1 Capsule	0.45 g	<0.50 ug/g
Zinc	52 mg/serving	1 Capsule	0.45 g	50 mg/serving

Reviewed and Approved,
SGS Chemical Solutions Laboratories, Inc.

DocuSigned by:

AF6434AEAFED49A...
QA Representative

Notes:

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The units for the PQL are the same as those shown for the result.

*PQL reported is above the minimum report level specified on the Sample Submittal Form. The requested levels were not attainable due to the nature of this sample.