

Title: Selenium Solution 236 mL (8 fl. Oz.) Liquid	
Allergy Research Group® / NutriCology®	
Document No.: 70120CA	Revision: 009

Certificate of Analysis

Part Number	70120		
Lot Number	171161		
Product Count & Form	8 fl oz (236 ml) liquid		
Packaging, Closure	250 ml amber glass bottle		
Storage Condition	Room Temperature		
Shelf Life	36 months	Expiration Date	01APR2023
Label Number, Size	70120L, F		
Retain Sample	2 bottles total		

ANALYSIS

Physical

Attribute	Method / SOP	Specification	Test Result
Product Color	QC011	Clear	Complies
Product Taste	QC011	Tasteless	Complies

Purity/Strength

Active Ingredients	Label Claim	Release Limits	Test Result
Selenium (as Sodium Selenite)	100 µg / 2.5 ml serving	100-150% LC By ICP-OES	115 µg / 2.5 ml serving

*Production and Process Control

Identification \ Chemical \ Heavy Metals


Attribute	Method / SOP	Specification	Test Result
Identity	Bulk Certificate of Analysis Review	Approved	Approved
Arsenic (inorganic)	ICP-MS per USP <2232>	≤ 15 mcg/day Ψ	0.225 mcg/day
Cadmium	ICP-MS per USP <2232>	≤ 5 mcg/day Ψ	BQL
Mercury (total)	ICP-MS per USP <2232>	≤ 15 mcg/day Ψ	0.075 mcg/day
Lead	ICP-MS per USP <2232>	≤ 10 mcg/day Ψ	0.285 mcg/day

*Production and Process Control, Ψ – Permitted Daily Exposure

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: 2020.07.16 14:50:03 -06'00'	Date: 21MAY2020
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Project Description: Product Testing (PO # LJ07292019)
Report Issued To: Allergy Research Group
 2300 North Loop Rd.
 Alameda, CA 94502
Contact: Janice Vu

Certificate of Analysis

AEMTEK #: 19071552

Sampling Date: 2019-07-29
Sample Received: 2019-07-30
Analysis Started: 2019-07-30
Analysis Performed By: JC, WY
Report Issue Date: 2019-08-02

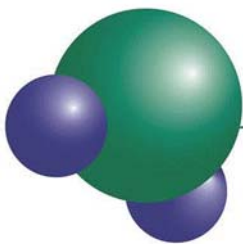
Analyte			Aerobic Plate Count	Total Coliforms	Yeast	Mold	Escherichia coli	Salmonella	Staphylococcus aureus
Method			AOAC OMA 990.12	AOAC OMA 991.14	AOAC OMA 2014.05	AOAC OMA 2014.05	USP 37 <62> (mod.)	USP 37 <62> (mod.)	USP 37 <62> (mod.)
Reporting Unit			CFU/g	CFU/g	CFU/g	CFU/g	per 10g	per 10g	per 10g
Method Detection Limit for Reporting			10	10	10	10	P/A	P/A	P/A
Sample ID	Sample Description	Lot #/Code	RESULTS						
1	Sodium Selenite Solution	80120/ 165641	<10	<10	<10	<10	ND	ND	ND

Terminology:

CFU = Colony Forming Units g = gram
 < 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 N/A = Not Applicable or not analyzed
 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.

J 08/02/19



Analytical Report

August 05, 2019

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

Page 1 of 1
WO Number: W19G1053

Client: Allergy Research Group-QC
Client #: A5537-T
Sample Type: Liquid Product-Mass
Collector: Client

Customer PO: LJ07292019
Date Received: 7/30/2019
Date Completed: 08/05/2019
Discard Date: 08/19/2019

CSL#: 19G2499 Sodium Selenite Solution - Lot#: 80120/ 165641

Parameter	Result	PQL	Method	Date	Analyst
Arsenic	<0.050 ug/g	0.050	ICP MS	07/31/19	KMS
Cadmium	<0.050 ug/g	0.050	ICP MS	07/31/19	KMS
Lead	<0.050 ug/g	0.050	ICP MS	07/31/19	KMS
Mercury	<0.050 ug/g	0.050	ICP MS	07/31/19	KMS
Selenium	49.4 ug/g	0.50	ICP MS	08/02/19	JTP

CSL#: 19G2499

Parameter	Result*	Serving Size	Unit Weight	Specification
Arsenic	<0.05 ug/g	2.5 ml	NA	<0.50 ug/g
Cadmium	<0.05 ug/g	2.5 ml	NA	<0.50 ug/g
Lead	<0.05 ug/g	2.5 ml	NA	<0.50 ug/g
Mercury	<0.05 ug/g	2.5 ml	NA	<0.50 ug/g
Selenium	124 ug/serving	2.5 ml	NA	100 ug/serving

Respectfully Submitted,
Chemical Solutions, Ltd.

QA Representative

Notes:

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

*Assuming a density of 1.00 g/ml.