AMARC | ASIA MEDICAL AND AGRICULTURAL LABORATORY AND RESEARCH CENTER

TESTING
No.0096

REPORT OF ANALYSIS

Report Date : 28/02/2025
Report No. : 25-025694
Request No. : 25-11064

Client Name	: CR LIVING & FARMING CO., LTD		
Address	: 211 Moo 4., Mae O, Phan, Chiang Rai 57120		
Sample Code	: 25-11064-001		
Sample Name	: Atomic jelly		
Receive Date	: 19/02/2025	Commence Date : 19/02/2025	
Reg. No.	: -	Lot No.	: -
Mfg.Date	: -	Exp.Date	: -
Manufacturer	: -		
Composition	: -		
Sample Condition	: Sample is contained in sealed plastic bag.		

Test Item	Test Method	Result	Unit	Limit
Total Aerobic Microbial Count *	THP 2021	8.5×10^4	CFU/g	-
Arsenic A1	In-house method : TM-PM-029 based on Thai Herbal Pharmacopoeia 2021 (Chapter 5.2)	Not Detected	mg/kg	-
Cadmium A1	In-house method : TM-PM-029 based on Thai Herbal Pharmacopoeia 2021 (Chapter 5.2)	Not Detected	mg/kg	-
Lead A1	In-house method : TM-PM-029 based on Thai Herbal Pharmacopoeia 2021 (Chapter 5.2)	Not Detected	mg/kg	-
Mercury A1	In-house method : TM-PM-029 based on Thai Herbal Pharmacopoeia 2021 (Chapter 5.2)	Not Detected	mg/kg	-

Remark : 1. A1 = ISO/IEC 17025:2017 Accredited by DSS.
2. * = Marked Test(s) is/are not accredited.
3. LOD of Arsenic = 0.200 mg/kg, LOQ of Arsenic = 2.000 mg/kg
4. LOD of Cadmium = 0.020 mg/kg, LOQ of Cadmium = 0.150 mg/kg
5. LOD of Lead = 0.400 mg/kg, LOQ of Lead = 5.000 mg/kg
6. LOD of Mercury = 0.050 mg/kg, LOQ of Mercury = 0.250 mg/kg

Nittaya N.

(Miss Nittaya Wuttichaikijcharoen)
Microbiological Laboratory Manager
Printed date : 28/02/2025

- End of Report -

Athena Ag, Inc.
8760 Younger Creek Drive
Sacramento, CA 95828, USA
1 (844) 333-1818
www.athenaag.com

CERTIFICATE OF ANALYSIS

Product: Athena Pro Bloom

This is to certify the batch conforms to the following specifications, within regulatory tolerances:

PHYSICAL AND CHEMICAL PROPERTIES	**Physical State**	Solid, soluble powder		
	Colour	Tan		
	pH	2.8 – 4		
	Specific Gravity	1.16		
	Country of Origin	USA		
NUTRIENT LEVELS Shown in percent (%) on a guaranteed basis	**Item**	**Result**		
	Available Phosphate (P_2O_5)	12		
	Soluble Potash (K_2O)	24		
	Magnesium (Mg)	3		
	Sulfur (S)	9		
	Iron (Fe)	0.1		
HEAVY METALS [1] Results shown in parts per million (ppm)	**Item**	**Result**	**Detection Limit**	**Test Method**
	Arsenic (As)	0.30	0.04	EPA 6020
	Cadmium (Cd)	< 0.03	0.03	EPA 6020
	Cobalt (Co)	< 1.00	1.00	EPA 6010D
	Chromium (Cr)	1.81	0.8	EPA 6010D
	Copper (Cu)	155	0.4	EPA 6010D
	Mercury (Hg)	< 0.01	0.01	EPA 7471
	Molybdenum (Mo)	58.2	0.4	EPA 6010D
	Nickel (Ni)	< 0.5	0.5	EPA 6010D
	Lead (Pb)	< 0.25	0.25	EPA 6020
	Selenium (Se)	< 0.10	0.1	EPA 6020
	Zinc (Zn)	177.2	2.0	EPA 6010D

[1] Tested on a quarterly basis by third-party accredited laboratories. Results are representative of all batches, and fall within established regulatory standards.

Completed By:

Kayli Thorpe, Product Compliance Manager	Kayli Thorpe	June 14, 2024
NAME & TITLE	**SIGNATURE**	**DATE**

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8760 Younger Creek Drive,
Sacramento, CA 95828, USA
1 (844) 333-1818
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CERTIFICATE OF ANALYSIS

Product: Athena Pro Core

This is to certify the batch above conforms to the following specifications, within regulatory tolerances:

PHYSICAL AND CHEMICAL PROPERTIES	**Physical State**	Soluble powder		
	Color	Tan		
	pH	3 – 4.5		
	Specific Gravity	1.1		
	Country of Origin	USA		
NUTRIENT LEVELS Shown in percent (%) on a guaranteed basis	**Item**	**Result**		
	Total Nitrogen (N)	14		
	Calcium (Ca)	17		
	Boron (B)	0.015		
	Copper (Cu)	0.01		
	Iron (Fe)	0.07		
	Manganese (Mn)	0.025		
	Molybdenum (Mo)	0.002		
	Zinc (Zn)	0.01		
HEAVY METALS [1] Results shown in parts per million (ppm)	**Item**	**Result**	**Detection Limit**	**Test Method**
	Arsenic	0.06	0.04	EPA 6020
	Cadmium	0.07	0.03	EPA 6020
	Cobalt	< 1.00	1.00	EPA 6010
	Chromium	0.83	0.8	EPA 6010
	Copper	-	-	-
	Mercury	< 0.01	0.01	EPA 7471
	Molybdenum	-	-	-
	Nickel	< 0.5	0.5	EPA 6010
	Lead	0.05	0.05	EPA 6020
	Selenium	< 0.10	0.1	EPA 6020
	Zinc	-	-	-

[1] **Tested on a quarterly basis. Results are representative of all batches, and fall within established regulatory standards.**

Completed By:

Kayli Thorpe, Product Compliance Manager	Kayli Thorpe	January 10, 2024
NAME & TITLE	**SIGNATURE**	**DATE**

Athena Ag, Inc.
8760 Younger Creek Drive,
Sacramento, CA 95828, USA
1 (844) 333-1818
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CERTIFICATE OF ANALYSIS

Product: Athena Pro Grow

This is to certify the batch above conforms to the following specifications, within regulatory tolerances:

PHYSICAL AND CHEMICAL PROPERTIES	**Physical State**	Soluble powder		
	Color	Tan		
	pH	2.8 – 4		
	Specific Gravity	1.16		
	Country of Origin	USA		
NUTRIENT LEVELS Shown in percent (%) on a guaranteed basis	**Item**	**Result**		
	Total Nitrogen (N)	2		
	Available Phosphate (P_2O_5)	8		
	Soluble Potash (K_2O)	20		
	Magnesium (Mg)	3		
	Sulfur (S)	8		
	Iron (Fe)	0.1		
HEAVY METALS [1] Results shown in parts per million (ppm)	**Item**	**Result**	**Detection Limit**	**Test Method**
	Arsenic	0.20	0.04	EPA 6020
	Cadmium	< 0.03	0.03	EPA 6020
	Cobalt	< 1.00	1.00	EPA 6010
	Chromium	2.66	0.8	EPA 6010
	Copper	133	0.4	EPA 6010
	Mercury	< 0.01	0.01	EPA 7471
	Molybdenum	67.7	0.4	EPA 6010
	Nickel	< 0.5	0.5	EPA 6010
	Lead	< 0.05	0.05	EPA 6020
	Selenium	< 0.10	0.1	EPA 6020
	Zinc	167.4	2.0	EPA 6010

[1] Tested on a quarterly basis. Results are representative of all batches, and fall within established regulatory standards.

Completed By:

Kayli Thorpe, Product Compliance Manager	Kayli Thorpe	January 10, 2024
NAME & TITLE	**SIGNATURE**	**DATE**

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1 (844) 333-1818
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CERTIFICATE OF ANALYSIS

Product: Athena Balance

This is to certify the batch conforms to the following specifications, within regulatory tolerances:

PHYSICAL AND CHEMICAL PROPERTIES	**Physical State**	Liquid solution		
	Color	Semi-clear		
	pH	11 – 12		
	Specific Gravity	1.04 – 1.08		
	Country of Origin	USA		
HEAVY METALS [1] Results shown in parts per million (ppm)	**Item**	**Result**	**Detection Limit**	**Test Method**
	Arsenic (As)	< 0.50	0.50	EPA 6020
	Cadmium (Cd)	< 0.05	0.05	EPA 6020
	Cobalt (Co)	< 1.00	1.00	EPA 6010D
	Chromium (Cr)	< 1.00	1.0	EPA 6010D
	Copper (Cu)	< 1.0	1.0	EPA 6010D
	Mercury (Hg)	< 0.05	0.05	EPA 7471
	Molybdenum (Mo)	< 1.0	1.0	EPA 6010D
	Nickel (Ni)	< 1.0	1.0	EPA 6010D
	Lead (Pb)	< 0.25	0.25	EPA 6020
	Selenium (Se)	< 0.50	0.5	EPA 6020
	Zinc (Zn)	< 2.0	2.0	EPA 6010D

[1] Tested on a quarterly basis by third-party accredited laboratories. Results are representative of all batches, and fall within established regulatory standards.

Completed By:

Kayli Thorpe, Product Compliance Manager	Kayli Thorpe	June 14, 2024
NAME & TITLE	**SIGNATURE**	**DATE**

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CERTIFICATE OF ANALYSIS

Product: Athena Cleanse

This is to certify the batch conforms to the following specifications, within regulatory tolerances:

PHYSICAL AND CHEMICAL PROPERTIES	**Physical State**	Liquid		
	Color	Clear		
	pH	6.5 – 7.5		
	Specific Gravity	0.98 – 1.02		
	Country of Origin	USA		
HEAVY METALS [1] Results shown in parts per million (ppm)	**Item**	**Result**	**Detection Limit**	**Test Method**
	Arsenic (As)	< 0.50	0.50	EPA 6020
	Cadmium (Cd)	< 0.05	0.05	EPA 6020
	Cobalt (Co)	< 1.00	1.00	EPA 6010D
	Chromium (Cr)	< 1.00	1.0	EPA 6010D
	Copper (Cu)	< 1.0	1.0	EPA 6010D
	Mercury (Hg)	< 0.05	0.05	EPA 7471
	Molybdenum (Mo)	< 1.0	1.0	EPA 6010D
	Nickel (Ni)	< 1.0	1.0	EPA 6010D
	Lead (Pb)	< 0.25	0.25	EPA 6020
	Selenium (Se)	< 0.50	0.5	EPA 6020
	Zinc (Zn)	< 2.0	2.0	EPA 6010D

[1] Tested on a quarterly basis by third-party accredited laboratories. Results are representative of all batches, and fall within established regulatory standards.

Completed By:

Kayli Thorpe, Product Compliance Manager	Kayli Thorpe	June 14, 2024
NAME & TITLE	**SIGNATURE**	**DATE**

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8760 Younger Creek Drive
Sacramento, CA 95828, USA
1 (844) 333-1818
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CERTIFICATE OF ANALYSIS

Product: Athena Fade

This is to certify the batch conforms to the following specifications, within regulatory tolerances:

PHYSICAL AND CHEMICAL PROPERTIES	**Physical State**	Liquid solution		
	Color	Amber		
	pH	2.8 – 4.8		
	Specific Gravity	1.1 – 1.116		
	Country of Origin	USA		
NUTRIENT LEVELS Shown in percent (%) on a guaranteed basis	**Item**	**Result**		
	Calcium (Ca)	4		
	Chlorine (Cl)	7		
	Boron (B)	0.01		
	Copper (Cu)	0.005		
	Iron (Fe)	0.06		
	Manganese (Mn)	0.013		
	Molybdenum (Mo)	0.0007		
	Zinc (Zn)	0.0045		
HEAVY METALS [1] Results shown in parts per million (ppm)	**Item**	**Result**	**Detection Limit**	**Test Method**
	Arsenic (As)	< 0.50	0.50	EPA 6020
	Cadmium (Cd)	< 0.05	0.05	EPA 6020
	Cobalt (Co)	< 1.00	1.00	EPA 6010D
	Chromium (Cr)	< 1.00	1.0	EPA 6010D
	Copper (Cu)	–	–	–
	Mercury (Hg)	< 0.05	0.05	EPA 7471
	Molybdenum (Mo)	–	–	–
	Nickel (Ni)	< 1.0	1.0	EPA 6010D
	Lead (Pb)	< 0.25	0.25	EPA 6020
	Selenium (Se)	< 0.50	0.5	EPA 6020
	Zinc (Zn)	–	–	–

[1] Tested on a quarterly basis by third-party accredited laboratories. Results are representative of all batches, and fall within established regulatory standards.

Completed By:

Kayli Thorpe, Product Compliance Manager	Kayli Thorpe	June 14, 2024
NAME & TITLE	**SIGNATURE**	**DATE**

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CERTIFICATE OF ANALYSIS

Product: Athena IPM

This is to certify the batch conforms to the following specifications, within regulatory tolerances:

PHYSICAL AND CHEMICAL PROPERTIES	**Physical State**	Liquid solution		
	Color	Semi-clear, amber		
	pH	3.8 – 5.2		
	Specific Gravity	1.013 – 1.023		
	Country of Origin	USA		
HEAVY METALS [1] Results shown in parts per million (ppm)	**Item**	**Result**	**Detection Limit**	**Test Method**
	Arsenic (As)	< 5.0	5.0	EPA 6010D
	Cadmium (Cd)	< 0.50	0.50	EPA 6010D
	Cobalt (Co)	< 1.00	1.00	EPA 6010D
	Chromium (Cr)	< 1.00	1.00	EPA 6010D
	Copper (Cu)	< 1.0	1.0	EPA 6010D
	Mercury (Hg)	< 0.05	0.05	EPA 7471
	Molybdenum (Mo)	< 1.0	1.0	EPA 6010D
	Nickel (Ni)	< 1.0	1.0	EPA 6010D
	Lead (Pb)	< 5.0	5.0	EPA 6010D
	Selenium (Se)	< 10.0	10.0	EPA 6010D
	Zinc (Zn)	< 2.0	2.0	EPA 6010D

[1] Tested on a quarterly basis by third-party accredited laboratories. Results are representative of all batches, and fall within established regulatory standards.

Completed By:

Kayli Thorpe, Product Compliance Manager	Kayli Thorpe	June 14, 2024
NAME & TITLE	**SIGNATURE**	**DATE**

The Perfect Run.™

ANALYTICAL REPORT

ANALYSIS REQUEST			
Customer Name:	Shanghai ABM Rock Wool Dafeng Co., Ltd	**Job No.:**	D-0729
Contact Name:	Shuo Lian	**Samples Received:**	27th Mar, 2023
Customer Address:	401A, 189 Shenwu Road, Shanghai, China	**Date(s) Tested:**	28th Mar – 12th Apr, 2023
Analysis Request:	Heavy metals analysis and microbiology		

SAMPLE DETAILS	
Sample ID:	**Sample Description:**
D-0729/1	UPuper Rock Wool Growing Substrate, #1 Plug
D-0729/2	UPuper Rock Wool Growing Substrate, #2 Block
D-0729/3	UPuper Rock Wool Growing Substrate, #3 Slab
D-0729/4	UPuper Rock Wool Growing Substrate, #4 Plug [Micro]
D-0729/5	UPuper Rock Wool Growing Substrate, #5 Block [Micro]
D-0729/6	UPuper Rock Wool Growing Substrate, #6 Slab [Micro]

METHOD DETAILS
Samples acid digested and analysed by ICP-MS against a standard calibration curve. Microbiology analysis as per Ph. Eur 2.6.12

D-0729/1 – 6	UPuper Rock Wool Growing Substrates		
Test	**Result**		
	D-0729/1 & 4	**D-0729/2 & 5**	**D-0729/3 & 6**
Heavy Metals			
Arsenic	< 1.5 µg/g	< 1.5 µg/g	< 1.5 µg/g
Cadmium	< 0.3 µg/g	< 0.3 µg/g	< 0.3 µg/g
Lead	< 2.5 µg/g	< 2.5 µg/g	< 2.5 µg/g
Mercury	< 0.1 µg/g	< 0.1 µg/g	< 0.1 µg/g
Microbiology			
TAMC	< 10 CFU/g	< 10 CFU/g	< 10 CFU/g
TYMC	< 10 CFU/g	< 10 CFU/g	< 10 CFU/g

This document utilises electronic signatures

Reviewed By: Ming Xiong
Position: Laboratory Manager

Approved By: Russell Kinghorn
Position: Managing Director
Date Approved: 13/04/2023 12:48:27 PM

PHARMALYTICS Pty Ltd,
4 Corporate Boulevard Bayswater VIC 3153 Australia
www.pharmalytics.com.au

SGS INTRON Laboratory
P.O. box 5187
NL-6130 PD Sittard
tel: +31 (0) 88 - 2 145 204

Certificate Of Analysis

Grodan B.V.
Att. Mr. W. Daniëls
P.O.B. 1160
6040 KD ROERMOND
The Netherlands

Date	:	18-09-2024
Subject	:	CAT-leaching test
Your Code	:	budget: 442002/NL42039
Laboratory Number	:	243078b / A158800
Sampling	:	By customer
Period of Investigation	:	23-08-2024 until 18-09-2024

SAMPLE DATA

Sample No	Sample Type	Sample Code	Date of Acceptance
2	Stone wool	Roe 6 Batch 2	23-08-2024
102	CAT-extract	From sample 2	27-08-2024

METHODS

Analysis	Technique	Method	Q	s
CAT-extraction		NEN-EN 13651		
Conservation		Own method		
Arsenic	ICP-MS	NEN EN ISO 17294-2		s
Cadmium	ICP-MS	NEN EN ISO 17294-2		s
Mercury	Cold vapour AAS	NEN EN ISO 12846		Qs
Lead	ICP-MS	NEN EN ISO 17294-2		s
Nickel	ICP-MS	NEN EN ISO 17294-2		s

Q = ISO 17025 accredited, s = subcontracted, Qs = ISO 17025 accredited subcontractor

Author: W.H.M. Klarenaar, Project Manager

Authorisation: ing. M.J.G. Delamboy, Operations Manager

SGS INTRON Laboratory
P.O. box 5187
NL-6130 PD Sittard
t +31 (0) 88 - 2 145 204

RESULTS

Leaching CAT method	Roe 6 Batch 2		blank/RL		corrected for blank
Element	µg/l	mg/kg dm	µg/l	mg/kg dm	mg/kg dm
Arsenic (As)	<1	<0,1	<1	<0,1	<0,1
Cadmium (Cd)	<0,10	<0,01	<0,10	<0,01	<0,01
Lead (Pb)	3,0	0,2	<1,0	<0,1	0,2
Mercury (Hg)	<0,050	<0,004	<0,050	<0,004	<0,004
Nickel (Ni)	110	7,9	<3,0	<0,2	7,9
Amount of sample (g)	11,2				
Dry matter %m/m	100				
Wool density (kg/m^3)	70	L/S= 5,0			
Extract volume (ml)	800				

INFORMATION ON THE SUITABILITY OF THE SAMPLES FOR ANALYSIS

According to international regulation (NEN-EN-ISO/IEC 17025) SGS INTRON is obliged to control if the samples are suitable for the intended analyses and should ensure that the samples do not degrade before the content is determined. It is requested that the suppliers of samples deliver the samples packed and, if applicable, conserved in a manner that is suitable for the intended analyses.

DISCLAIMER

- This report may only be reproduced in its entirety without the written permission of the SGS INTRON laboratory.
- The results are only related to the investigated samples.
- The scope of the NEN-EN-ISO/IEC 17025 accreditation includes all results associated with analyzes that are marked with a Q for analysis methods.
- The uncertainty of measurement of the reported results and other performance data can be requested at SGS INTRON.
- On request, a list of accredited analysis methods can be requested, which describes the relationship (compliant, equivalent, own method) with the underlying standard.