

# CERTIFICATE OF ANALYSIS

## GENERAL INFORMATION

Report Date	3/5/2025	Country of Origin	Solomon Islands
Sample Number	S2236	Country of Processing	USA
Product Name	Gold Headhunter	Manufacture Date	Mar-25
Lot Number	SIK2502-HH3	Best By Date	Mar-28

ITEM	SPECIFICATION	TEST RESULTS	METHOD
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## PHYSICAL & CHEMICAL

Identification	Piper methysticum	Complies	HPLC
Appearance	Beige to Yellow Powder	Complies	Organoleptic
Kavalactone Standard	2-17 % Kavalactones	14.67%	HPLC
Kavalactone Profile	Noble	Pass	HPLC
Chemotype	If # 5 is in 1st or 2nd in Abundance	243516	HPLC
K/DHM	> 1.2 for Noble	4.9	Calculation

## HEAVY METALS

		Results		
Arsenic (As)	NMT 1,000 (ppb)*	479	ppb	FDA EAM 4.7
Cadmium (Cd)	NMT 1,000 (ppb)*	333	ppb	FDA EAM 4.7
Lead (Pb)	NMT 1,000 (ppb)*	94.5	ppb	FDA EAM 4.7
Mercury (Hg)	NMT 1,000 (ppb)*	< 10	ppb	FDA EAM 4.7

\*Heavy Metals Action Limits Based on Maximum PDE at 5% Kavalactones. Results May Exceed 1,000 ppb action limit with higher kavalactone contents.

## MICROBIOLOGICAL

		Results		
AEROBIC PLATE COUNT	NMT 10,000,000 cfu	540,000	cfu / 10 g	USP 2021
E. COLI	ABSENT (cfu/10g)	Absent	cfu / 10 g	USP 2022
PSEUDOMONAS AERUGINOSA	ABSENT (cfu/10g)	Absent	cfu / 10 g	USP 2022
SALMONELLA	ABSENT (cfu/10g)	Absent	cfu / 10 g	USP 2022
STAPHYLOCOCCUS AUREUS	ABSENT (cfu/10g)	Absent	cfu / 10 g	USP 2022
YEAST	NMT 100,000 cfu (Combined)	270,000	cfu / 10 g	
MOLD		25	cfu / 10 g	USP 2021
TOTAL YEAST & MOLD	NMT 100,000 cfu (Combined)	270025	cfu / 10 g	

cfu/g = Colony Forming Units Per Gram      NMT = No More Than      PDE = Permitted Daily Exposure      PPB = Parts Per Billion

### Analysis Performed by a Third-Party Laboratory

We are dedicated to offer the best quality of botanical products on the market. We test and stand behind our products.

Disclaimer - The test results are accurate to the best of our knowledge and are based upon reputable laboratory and industry standard testing methods.

These results should not be used as a final determination for use in a finished product. It is recommended that you verify these test results with an in-house quality control department or obtain an additional independent third-party lab to verify that this material meets specifications.

Botany Evolution, its board of directors, contract laboratories, employees, and affiliates are held harmless from any loss or damages resulting from the use or misuse of this document. The appropriate use of this product is the sole responsibility of the user of the purchasing party.

Completed By: Tony Sakhi Title: Director of Operations Date: 3/26/2025



Botany Evolution LLC  
2510 Kirby Circle NE  
Palm Bay, FL 32945  
321-802-4583

Certificate Of Analysis

Sample Identification Information

<u>Date of Analysis</u> 3/24/2025	<u>Country of Origin</u> SOLOMON ISLANDS
<u>Sample:</u> S2236	<u>Country of Processing</u> USA
<u>Product Name</u> HEADHUNTER	<u>Manufacture Date</u> Mar-25
<u>Lot#</u> SIK2502-HH3	<u>Best By Date</u> Mar-28

General Product Specifications

<u>Product Species</u> Piper Methysticum	<u>Common Names</u> Kava kava, Awa, Yagona
<u>Part Used</u> Root	<u>Appearance</u> Yellow, Brown, beige powder

Analyzed Characteristics	Specification	Result	Test Method
<u>Standardization</u>	2-17% Kavalactones	14.67%	HPLC
<u>Identification</u>	Complies by HPLC	Conform	HPLC
<u>Kavalactone Profile</u>	Noble	PASS	HPLC
<u>Mesh Size</u>	60-30	60	Sieve
<u>Color</u>	Beige to Yellow	Pass	Visual
<u>Odor</u>		Pass	Organoleptic
<u>Taste</u>		Pass	Organoleptic
<u>Chemotype</u>		423156	HPLC
<u>K/DHM</u>	TUDEI < 1.2 > NOBLE	4.9	Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2380.544			
Methysticin	M	1	2.21	583.683	4.22%	0.75%	6
Dihydromethysticin	DHM	2	3.38	507.593	3.67%	1.00%	5
Kavain	K	3	1	8476.438	61.24%	4.94%	4
Dihydrokavain	DHK	4	3.48	2189.75	15.82%	4.44%	2
Desmethoxyyangonin	DMY	5	2.52	743.489	5.37%	1.09%	1
Yangonin	Y	6	3.12	1340.799	9.69%	2.44%	3
Kavalactones			Total:	13841.752	100.00%	14.67%	423156

\*See data in attachment HPLC1100 Agilent Certificate with Chromatogram graph.

This result are in house tested and the best of our knowledge and experience. Using calibrated equipment.

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Chemist Hustle Youngs Date 3/24/25



SAMPLE S2236  
Vial 11

0.75514g/50mL

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA\_03\_21\_2025\_15MINSTDTESTMETHOD 2025-03-21 16-48-50\01->  
SEQUENCE C:\CHEM32\1\DATA\KAVA\_03\_21\_2025\_ ->

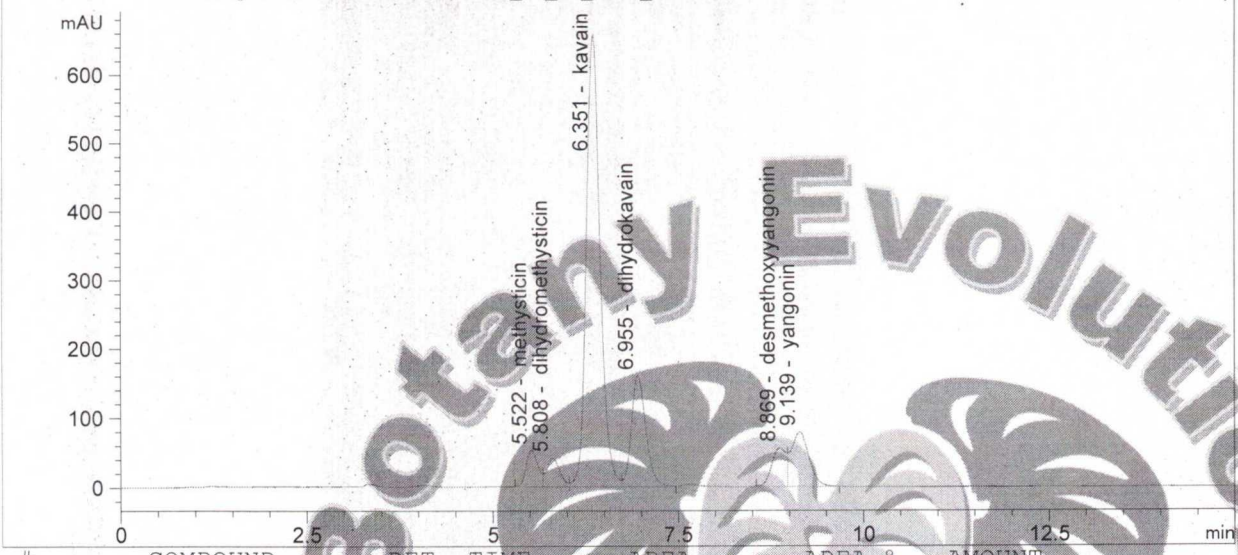
Injection date 3/21/2025

Injection time 8:35:57 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA\_03\_21\_202->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA\_03\_21\_2025\_15MINSTDTESTMETHOD 2025-03-21 16-48-50\011-1101.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.522	583.683	4.22	0.000
2	dihydromethysticin	5.808	507.593	3.67	0.000
3	kavain	6.351	8476.438	61.24	0.001
4	dihydrokavain	6.955	2189.750	15.82	0.000
5	desmethoxyyangonin	8.869	743.489	5.37	0.000
6	yangonin	9.139	1340.799	9.69	0.000

3/24/25  
y