Botany Evolution LLC

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CERTIFICATE OF ANALYSIS

GENERAL INFORMATION

Report Date	3/5/2025	**Country of Origin**	Solomon Islands
Sample Number	S2237	**Country of Processing**	USA
Product Name	Gold	**Manufacture Date**	Mar-25
Lot Number	SIK2502-G3	**Best By Date**	Mar-28

ITEM	SPECIFICATION	TEST RESULTS	METHOD

PHYSICAL & CHEMICAL

ITEM	SPECIFICATION	TEST RESULTS	METHOD
Identification	Piper methysticum	Complies	HPLC
Appearance	Beige to Yellow Powder	Complies	Organoleptic
Kavalactone Standard	2-17 % Kavalactones	10.2%	HPLC
Kavalactone Profile	Noble	Pass	HPLC
Chemotype	If # 5 is in 1st or 2nd in Abundance	243516	HPLC
K/DHM	> 1.2 for Noble	4.0	Calculation

HEAVY METALS

ITEM	SPECIFICATION	Results		METHOD
Arsenic (As)	NMT 1,000 (ppb)*	273	ppb	FDA EAM 4.7
Cadmium (Cd)	NMT 1,000 (ppb)*	309	ppb	FDA EAM 4.7
Lead (Pb)	NMT 1,000 (ppb)*	40	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

ITEM	SPECIFICATION	Results		METHOD
AEROBIC PLATE COUNT	NMT 10,000,000 cfu	290,000	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)	120,000	cfu / 10 g	
MOLD		40	cfu / 10 g	USP 2021
TOTAL YEAST & MOLD	NMT 100,000 cfu (Combined)	120040	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: [signature] Title: Director of Operations Date: 3/26/2025

Botany Evolution LLC
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Certificate Of Analysis

Sample Identification Information

Date of Analysis 3/5/2025
Sample: S2237
Product Name GOLD
Lot# SIK2502-G3

Country of Origin SOLOMON ISLANDS
Country of Processing USA
Manufacture Date Mar-25
Best By Date Mar-28

General Product Specifications

Product Species Piper Methysticum
Part Used Root

Common Names Kava kava, Awa, Yagona
Appearance Yellow, Brown, beige powder

Analyzed Characteristics	Specification	Result	Test Method
Standardization	2-17% Kavalactones	10.20%	HPLC
Identification	Complies by HPLC	Conform	HPLC
Kavalactone Profile	Noble	PASS	HPLC
Mesh Size	60-30	60	Sieve
Color	Beige to Yellow	Pass	Visual
Odor		Pass	Organoleptic
Taste		Pass	Organoleptic
Chemotype		243516	HPLC
K/DHM	TUDEI < 1.2 > NOBLE	4.0	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	346.98	3.77%	0.45%	6
Dihydromethysticin	DHM	2	3.38	397.554	4.32%	0.78%	5
Kavain	K	3	1	5342.202	58.09%	3.11%	4
Dihydrokavain	DHK	4	3.48	1786.197	19.42%	3.62%	2
Desmethoxyyangonin	DMY	5	2.52	472.517	5.14%	0.69%	1
Yangonin	Y	6	3.12	851.132	9.25%	1.55%	3
Kavalactones			**Total:**	**9196.582**	**100.00%**	**10.20%**	**243516**

*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 Mustil Young Date 3/5/25

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Kavalactone Analysis

SAMPLE S2237
Vial 12

.75594g/50mL

avelength 246 nm
:\CHEM32\1\DATA\KAVA_03_21_2025_15MINSTDTESTMETHOD 2025-03-21 16-48-50\01->
EQUENCE C:\CHEM32\1\DATA\KAVA_03_21_2025_ ->
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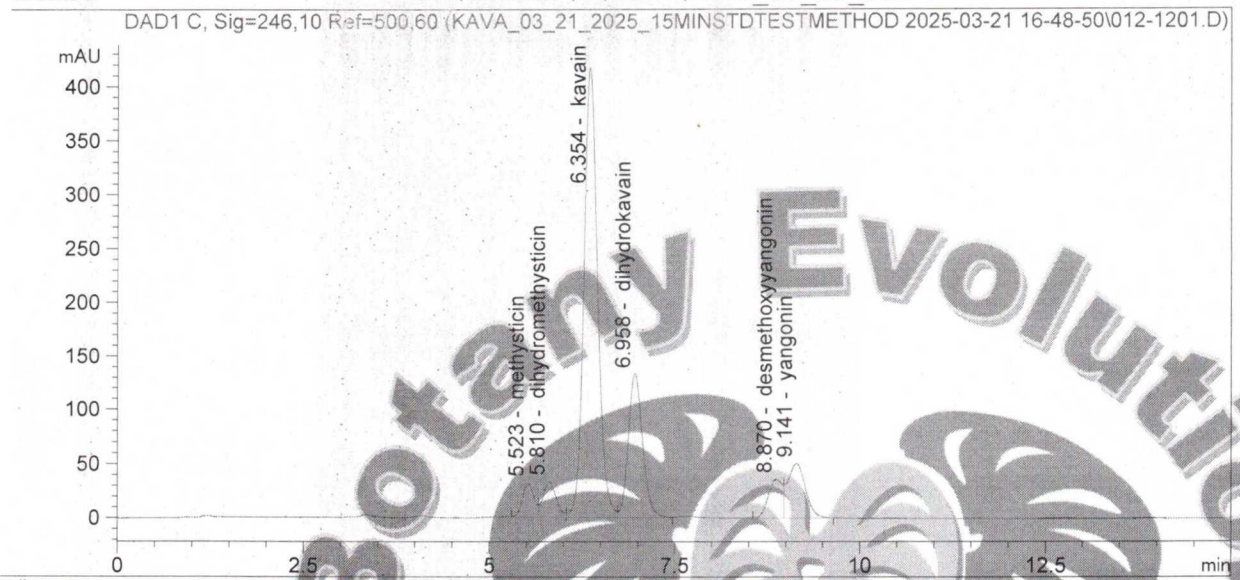

#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.523	346.980	3.77	0.000
2	dihydromethysticin	5.810	397.554	4.32	0.000
3	kavain	6.354	5342.202	58.09	0.000
4	dihydrokavain	6.958	1786.197	19.42	0.000
5	desmethoxyyangonin	8.870	472.517	5.14	0.000
6	yangonin	9.141	851.132	9.25	0.000

3/24/25