

CERTIFICATE OF ANALYSIS

GENERAL INFORMATION

Report Date	12/17/2024	Country of Origin	Solomon Islands
Sample Number	S2195	Country of Processing	United States
Product Name	Gold	Manufacture Date	Dec-24
Lot Number	SIK2411-G12	Best By Date	Dec-27

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	12.59%	HPLC
Kavalactone Profile	Noble	Pass	HPLC
Chemotype	If # 5 is in 1st or 2nd in Abundance	423516	HPLC
K/DHM	> 1.2 for Noble	4.3	Calculation

HEAVY METALS

		Result	
Arsenic (As)	NMT 1,000 (ppb)*	21.7	ppb FDA EAM 4.7
Cadmium (Cd)	NMT 1,000 (ppb)*	320	ppb FDA EAM 4.7
Lead (Pb)	NMT 1,000 (ppb)*	55.5	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

		Result	
AEROBIC PLATE COUNT	NMT 10,000,000 cfu	45,000	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)	38,900	cfu / 10 g
MOLD		230	cfu / 10 g USP 2021
TOTAL YEAST & MOLD	NMT 100,000 cfu (Combined)	39130	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 Sahib Title: Manager Date: 12/18/24

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis

Sample Identification Information

Date of Analysis 12/17/2024

Sample: S2195

Product Name GOLD

Lot# SIK2411-G12

Country of Origin

SOLOMON ISLANDS

Country of Processing

USA

Manufacture Date

Nov-24

Best By Date

Nov-27

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

12.59%

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

423516

HPLC

K/DHM

4.3

Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2472.728			
Methysticin	M	1	2.21	570.894	4.75%	0.72%	6
Dihydromethysticin	DHM	2	3.38	499.147	4.16%	0.96%	5
Kavain	K	3	1	7215.037	60.06%	4.11%	4
Dihydrokavain	DHK	4	3.48	1925.594	16.03%	3.82%	2
Desmethoxyyangonin	DMY	5	2.52	639.139	5.32%	0.92%	1
Yangonin	Y	6	3.12	1162.769	9.68%	2.07%	3
Kavalactones			Total:	12012.580	100.00%	12.59%	423516

*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

Russell Youngs

Date

12/18/24

SAMPLE S2195
Vial 15

0.75636g/50mL

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_12_17_2024_15MINSTDTESTMETHOD 2024-12-17 14-19-01\01->
SEQUENCE C:\CHEM32\1\DATA\KAVA_12_17_2024_ ->

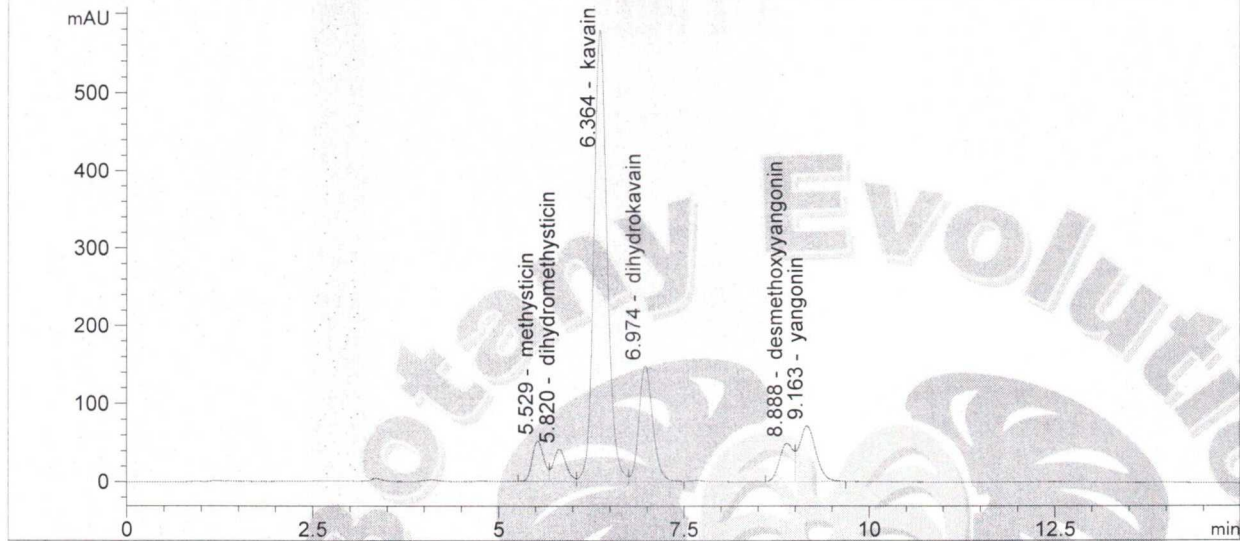
Injection date 12/17/2024

Injection time 7:10:13 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA_12_17_202->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_12_17_2024_15MINSTDTESTMETHOD 2024-12-17 14-19-01\015-1501.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.529	570.894	4.75	0.000
2	dihydromethysticin	5.820	499.147	4.16	0.000
3	kavain	6.364	7215.037	60.06	0.001
4	dihydrokavain	6.974	1925.594	16.03	0.000
5	desmethoxyyangonin	8.888	639.139	5.32	0.000
6	yangonin	9.163	1162.769	9.68	0.000

12/18/24
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