

CERTIFICATE OF ANALYSIS

GENERAL INFORMATION

Report Date	3/5/2025	Country of Origin	Solomon Islands
Sample Number	S2232	Country of Processing	USA
Product Name	Kakamora	Manufacture Date	Mar-25
Lot Number	SIK2502-KM3	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	13.64%	HPLC
Kavalactone Profile	Noble	Pass	HPLC
Chemotype	If # 5 is in 1st or 2nd in Abundance	423156	HPLC
K/DHM	> 1.2 for Noble	4.4	Calculation

HEAVY METALS

		Results	
Arsenic (As)	NMT 1,000 (ppb)*	58.8 ppb	FDA EAM 4.7
Cadmium (Cd)	NMT 1,000 (ppb)*	429 ppb	FDA EAM 4.7
Lead (Pb)	NMT 1,000 (ppb)*	291.7 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	15,200 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)	4,900 cfu / 10 g	
MOLD		250 cfu / 10 g	USP 2021
TOTAL YEAST & MOLD	NMT 100,000 cfu (Combined)	5150 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 Sahle Title: Manager Date: 3/7/2025

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis**Sample Identification Information**Date of Analysis 3/5/2025Sample: S2235Product Name KAKAMORALot# SIK2502-KM-3Country of Origin

SOLOMON ISLANDS

Country of Processing

USA

Manufacture Date

Mar-25

Best By Date

Mar-28

General Product SpecificationsProduct Species Piper MethysticumPart Used RootCommon Names

Kava kava, Awa, Yagona

Appearance

Yellow, Brown, beige powder

Analyzed Characteristics**Specification****Result****Test Method**Standardization

2-17% Kavalactones

13.64%

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

423156

HPLC

K/DHM

TUDEI < 1.2 > NOBLE

4.4

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	635.147	4.95%	0.82%	6
Dihydromethysticin	DHM	2	3.38	516.148	4.02%	1.01%	5
Kavain	K	3	1	7744.652	60.32%	4.50%	4
Dihydrokavain	DHK	4	3.48	1971.645	15.36%	3.99%	2
Desmethoxyyangonin	DMY	5	2.52	701.372	5.46%	1.03%	1
Yangonin	Y	6	3.12	1269.505	9.89%	2.30%	3
Kavalactones			Total:	12838.469	100.00%	13.64%	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

Justin Young

Date

3/10/25

SAMPLE S2235
Vial 14

0.75772g/50mL

wavelength 246 nm

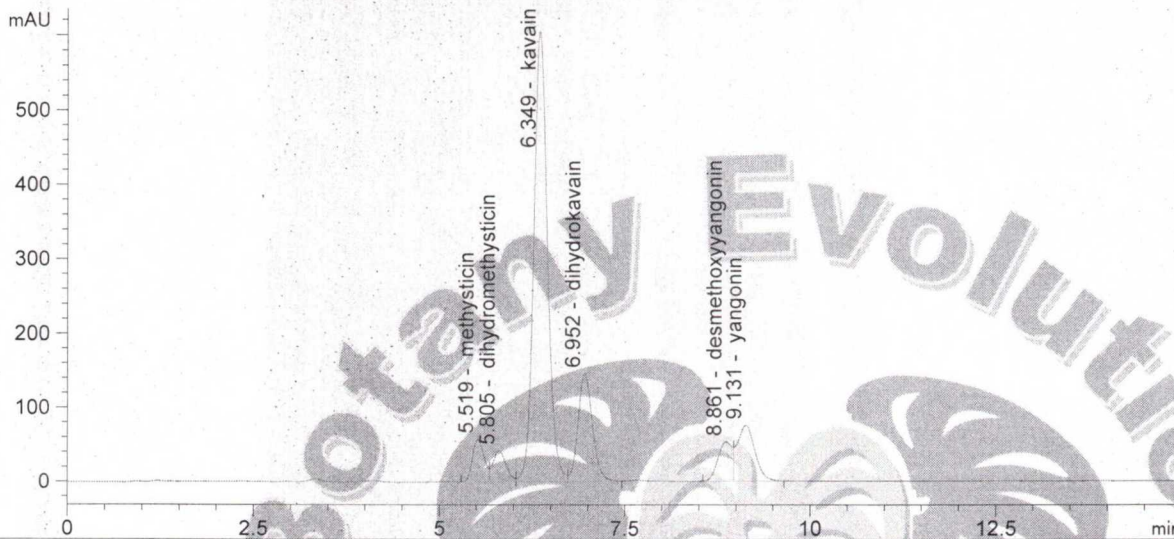
C:\CHEM32\1\DATA\KAVA_03_05_2025_15MINSTDTESTMETHOD 2025-03-05 16-07-05\01->
SEQUENCE C:\CHEM32\1\DATA\KAVA_03_05_2025_ ->

Injection date 3/5/2025
Injection time 8:42:33 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA_03_05_202->

DAD1 C, Sig=246,10 Ref=500.60 (KAVA_03_05_2025_15MINSTDTESTMETHOD 2025-03-05 16-07-05\014-1401.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.519	635.147	4.95	0.000
2	dihydromethysticin	5.805	516.148	4.02	0.000
3	kavain	6.349	7744.652	60.32	0.001
4	dihydrokavain	6.952	1971.645	15.36	0.000
5	desmethoxyyangonin	8.861	701.372	5.46	0.000
6	yangonin	9.131	1269.505	9.89	0.000

3/6/25
[Signature]