#### 2510 Kirby Circle NE Suite 110 Palm Bay, FL 32905

(321) 802 - 4583 botanyevolution@gmail.com

### CERTIFICATE OF ANALYSIS

	22 4 - 25	Country of Ouis	mi in	Г:::	
·	22-Apr-25 S2242	Country of Origin		Fiji	
Sample Number Product Name Say	,		United States		
	vusavu Waka	Manufacture Date		Apr-25	
Lot Number Fl	_K2503-SW4	Best By Date		Apr-28	
ITEM	SPECIFICATION	TEST RESULTS		METHOD	
PHYSICAL & CHEMICAL					
Identification	Piper methysticum	Complie	HPLC		
Appearance	Beige to Yellow Powder	Complies		Organoleptic	
Kavalactone Standard	2-17 % Kavalactones	7.29%		HPLC	
Kavalactone Profile	Noble	Noble Pass		HPLC	
Chemotype	If # 5 is in 1st or 2nd in Abundance	426531		HPLC	
K/DHM	> 1.2 for Noble	1.4		Calculation	
HEAVY METALS					
		Results		1406	
Arsenic (As)	NMT 1,000 (ppb)*	53.1	ppb	FDA EAM 4.7	
Cadmium (Cd)	NMT 1,000 (ppb)*	257	ppb	FDA EAM 4.7	
Lead (Pb)	NMT 1,000 (ppb)*	83.7 ppb		FDA EAM 4.7	
Mercury (Hg)	NMT 1,000 (ppb)*	< 10	ppb	FDA EAM 4.7	
*Heavy Metals Action Limits Based on I	Maximum PDE at 5% Kavalactones. Results N	lay Exceed 1,000 ppb actio	on limit with higher	kavalactone contents.	
MICROBIOLOGICAL					
		Results			
AEROBIC PLATE COUNT	NMT 10,000,000 cfu	1,190,000	cfu / 10 g	USP 2021	
E. COLI	ABSENT (cfu/10g)	Absent	cfu/10g	USP 2022	
PSEUDOMONAS AERUGINOSA	ABSENT (cfu/10g)	Absent	cfu/10g	USP 2022	
SALMONELLA	ABSENT (cfu/10g)	Absent	cfu/10g	USP 2022	
STAPHYLOCOCCUS AUREUS	ABSENT (cfu/10g)	Absent	cfu/10g	USP 2022	
YEAST		10	cfu/10g		
MOLD	NMT 100,000 cfu (Combined)	10	cfu / 10 g	USP 2021	
TOTAL YEAST & MOLD	NMT 100,000 cfu (Combined)	20 cfu / 10 g			
cfu/g = Colony Forming Units Per	Gram NMT = No More Than	PDE = Permitted Da	aily Exposure	PPB = Parts Per Billio	
Analysis Performed by a Third-Party Labor	ratory Company	and the			
Ve are dedicated to offer the best quality	of botanical products on the market. W			istry stanaara testing	

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: <u>July Salls</u> Date: 4/23/2025

## **Botany Evolution LLC**

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

# **Certificate Of Analysis**

Sample Identification Information

Date of Analysis 4/22/2025

Sample: S2242

Product Name SAVUSAVU WAKA

Lot# FLK2503-SW4

**Country of Origin** 

**Country of Processing** USA

Manufacture Date

Apr-25 Apr-28

FIJI

**Best By Date** 

**General Product Specifications** 

**Product Species** Piper Methysticum

Part Used Root

**Common Names** 

Kava kava, Awa, Yagona

**Appearance** 

Yellow, Brown, beige powder

**Analyzed Characteristics** 

Identification

Standardization

**Kavalactone Profile** 

Complies by HPLC

Noble

Mesh Size 60-30

Color

Odor

Taste

Chemotype

K/DHM

Specification

2-17% Kavalactones

Beige to Yellow

TUDEI < 1.2 > NOBLE

Result **Test Method** 

7.29%

Conform

PASS

60

Pass

**Pass** 

Pass

426531

1.4

Visual

Organoleptic

Organoleptic

**HPLC** 

**HPLC** 

**HPLC** 

**HPLC** 

Sieve

Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2279.089			
Methysticin	M	1	2.21	1014.172	17.00%	1.36%	6
Dihydromethysticin	DHM	2	3.38	576.243	9.66%	1.18%	5
Kavain	К	3	1	2803.063	47.00%	1.70%	4
Dihydrokavain	DHK	4	3.48	752.629	12.62%	1.59%	2
Desmethoxyyangonin	DMY	5	2.52	256.73	4.30%	0.39%	1
Yangonin	Υ	6	3.12	561.588	9.42%	1.06%	3
Kavalactones			Total:	5964.425	100.00%	7.29%	426531

<sup>\*</sup>See data in attachment HPLC1100 Agilent Certificate with Chromatogram graph.

Chemist

lust youngs

Date

4/22/25

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

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.

#### Kavalactone Analysis

SAMPLE S2242 Vial 11

0.75786g/50mL

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA\_04\_17\_2025\_15MINSTDTESTMETHOD 2025-04-17 15-39-19\01->

SEQUENCE C:\CHEM32\1\DATA\KAVA 04 17 2025

Injection date 4/17/2025 Injection time 7:26:18 PM

COMPOUND

Acq. operator KRISTL

C:\CHEM32\1\DATA\KAVA 04 17 202-> Method DAD1 C, Sig=246,10 Ref=500,60 (KAVA\_04\_17\_2025\_15MINSTDTESTMETHOD 2025-04-17 15-39-19\011-1101.D) mAU 6.352 - kavain 200 22 - methysticin romethysticin 175 150 125 100 6.956 75 50 8.863 25 0 0 10 12.5

AREA

AREA

AMOUNT

				- 570E NE COE NA 1271 - 1271 - 1471	- at 1000000000 10000000 1000
1	methysticin	5.522	1014.172	17.00	0.000
2	dihydromethysticin	5.807	576.243	9.66	0.000
3	kavain	6.352	2803.063	47.00	0.000
4	dihydrokavain	6.956	752.629	12.62	0.000
5	desmethoxyyangonin	8.863	256.730	4.30	0.000
6	yangonin	9.127:	561.588	9.42	0.000

RET. TIME

4/22/25