

Botany Evolution LLC

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

Certificate Of Analysis

Sample Identification Information

Date of Analysis 5/1/2024
Sample: S2102
Product Name SAVUSAVU WAKA
Lot# FLK2403-SW4

Country of Origin FIJI
Country of Processing USA
Manufacture Date Mar-24
Best By Date Mar-27

General Product Specifications

Product Species Piper Methycticum
Part Used Root

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

Analyzed Characteristics

Specification

Result

Test Method

<u>Standardization</u>	2-17% Kavalactones	8.47%	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>		426351	HPLC
<u>K/DHM</u>		1.8	Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2304			
Methycticin	M	1	2.21	1151.493	15.43%	1.46%	6
Dihydromethycticin	DHM	2	3.38	617.067	8.27%	1.19%	5
Kavain	K	3	1	3650.646	48.93%	2.09%	4
Dihydrokavain	DHK	4	3.48	949.479	12.73%	1.89%	2
Desmethoxyyangonin	DMY	5	2.52	346.517	4.64%	0.50%	1
Yangonin	Y	6	3.12	745.092	9.99%	1.33%	3
Kavalactones			Total:	7460.294	100.00%	8.47%	426351

*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.
 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.

Chemist Mustel Youngs Date 5/2/24

SAMPLE S2102
 Vial 14

0.75490g/50mL

wavelength 246 nm

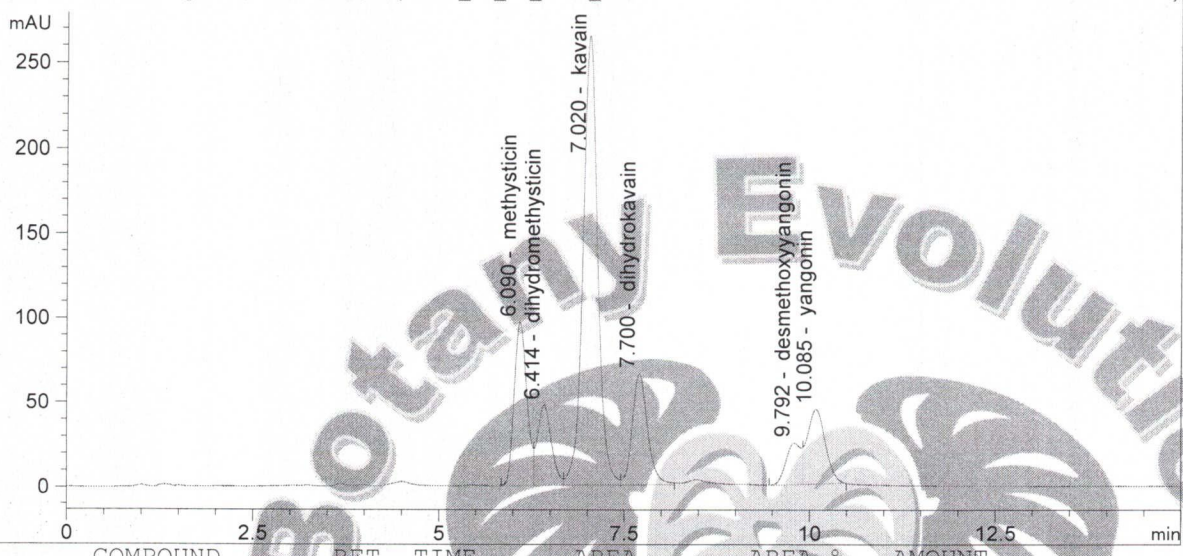
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Injection date 5/1/2024
 Injection time 8:46:04 PM

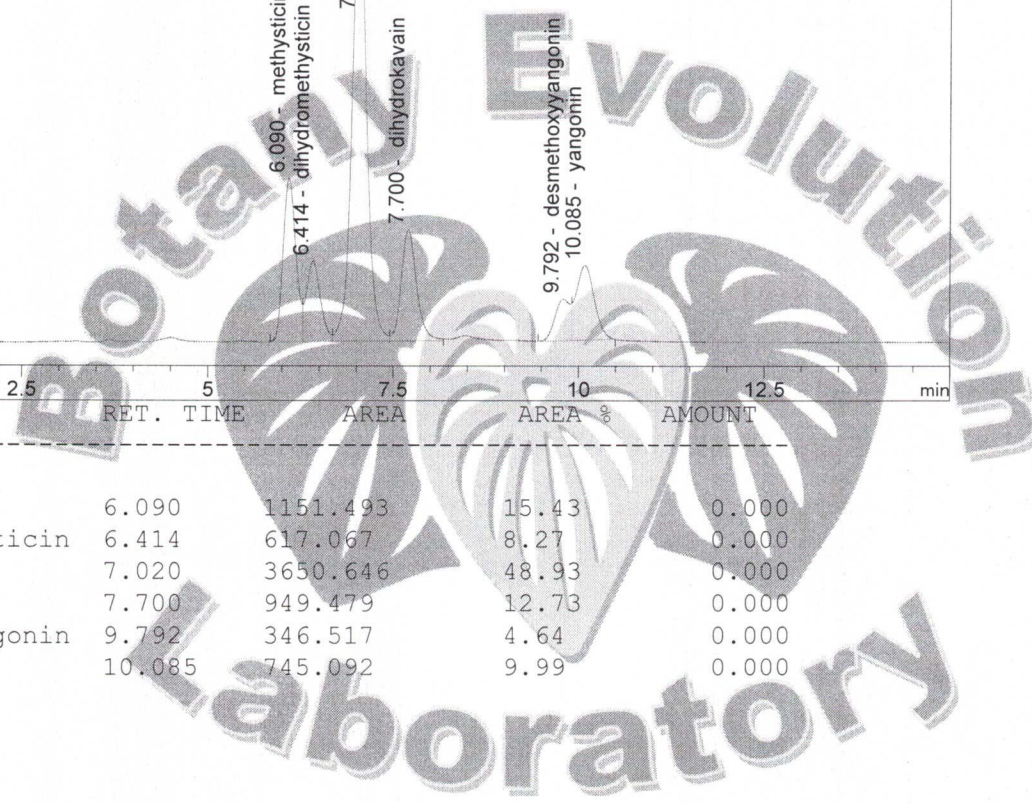
Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA_05_01_202->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_05_01_2024_15MINSTDTESTMETHOD 2024-05-01 14-33-50\014-1701.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	6.090	1151.493	15.43	0.000
2	dihydromethysticin	6.414	617.067	8.27	0.000
3	kavain	7.020	3650.646	48.93	0.000
4	dihydrokavain	7.700	949.479	12.73	0.000
5	desmethoxyyangonin	9.792	346.517	4.64	0.000
6	yangonin	10.085	745.092	9.99	0.000



5/2/24
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CERTIFICATE OF ANALYSIS

GENERAL INFORMATION

Report Date	5/1/2024	Country of Origin	Fiji
Sample Number	S2102	Country of Processing	USA
Product Name	Savusavu Waka	Manufacture Date	Mar-24
Lot Number	FLK2403-SW4	Best By Date	Mar-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	8.47%	HPLC
Kavalactone Profile	Noble	Pass	HPLC
Chemotype	If # 5 is in 1st or 2nd in Abundance	426351	HPLC
K/DHM	> 1.2 for Noble	1.8	Calculation

HEAVY METALS

		Tai Waka	LK Reserve		
Arsenic (As)	NMT 1,000 (ppb)*	13.3	13.4	ppb	FDA EAM 4.7
Cadmium (Cd)	NMT 1,000 (ppb)*	155	156	ppb	FDA EAM 4.7
Lead (Pb)	NMT 1,000 (ppb)*	52.7	45.1	ppb	FDA EAM 4.7
Mercury (Hg)	NMT 1,000 (ppb)*	< 10	< 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

		Tai Waka	LK Reserve		
AEROBIC PLATE COUNT	NMT 10,000,000 cfu	52,000	12,000	cfu / 10 g	USP 2021
E. COLI	ABSENT (cfu/10g)	Absent	Absent	cfu / 10 g	USP 2022
PSEUDOMONAS AERUGINOSA	ABSENT (cfu/10g)	Absent	Absent	cfu / 10 g	USP 2022
SALMONELLA	ABSENT (cfu/10g)	Absent	Absent	cfu / 10 g	USP 2022
STAPHYLOCOCCUS AUREUS	ABSENT (cfu/10g)	Absent	Absent	cfu / 10 g	USP 2022
YEAST	NMT 100,000 cfu (Combined)	50,000	1,700	cfu / 10 g	
MOLD	NMT 100,000 cfu (Combined)	10	1,500	cfu / 10 g	USP 2021
TOTAL YEAST & MOLD	NMT 100,000 cfu (Combined)	50,010	3,200	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

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Completed By: Tony Sabeh Title: Manager Signature: Tony Sabeh