

CERTIFICATE OF ANALYSIS

GENERAL INFORMATION

Report Date	4/9/2024	Country of Origin	Vanuatu
Sample Number	S2095	Country of Processing	USA
Product Name	Taboo	Manufacture Date	Feb-24
Lot Number	VSSC2402-T4	Best By Date	Feb-27

ITEM	SPECIFICATION	TEST RESULTS	METHOD
------	---------------	--------------	--------

PHYSICAL & CHEMICAL

Identification	Piper methysticum	Complies	HPLC
Appearance	Beige to Yellow Powder	Complies	Organoleptic
Kavalactone Standard	2-17 % Kavalactones	7.64%	HPLC
Kavalactone Profile	Noble	Pass	HPLC
Chemotype	If # 5 is in 1st or 2nd in Abundance	243561	HPLC
K/DHM	> 1.2 for Noble	2.3	Calculation

HEAVY METALS

		Basal	Lateral		
Arsenic (As)	NMT 1,000 (ppb)*	< 10	5.5	ppb	FDA EAM 4.7
Cadmium (Cd)	NMT 1,000 (ppb)*	145	176	ppb	FDA EAM 4.7
Lead (Pb)	NMT 1,000 (ppb)*	14.9	108	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

		Basal	Lateral		
AEROBIC PLATE COUNT	NMT 10,000,000 cfu	240	17,000	cfu / 10 g	USP 61
E. COLI	ABSENT (cfu/10g)	Absent		cfu / 10 g	USP 62
PSEUDOMONAS AERUGINOSA	ABSENT (cfu/10g)	Absent		cfu / 10 g	USP 62
SALMONELLA	ABSENT (cfu/10g)	Absent		cfu / 10 g	USP 62
STAPHYLOCOCCUS AUREUS	ABSENT (cfu/10g)	Absent		cfu / 10 g	USP 62
YEAST	NMT 100,000 cfu (Combined)	80	800	cfu / 10 g	
MOLD	NMT 100,000 cfu (Combined)	80	1,000	cfu / 10 g	USP 2021
TOTAL YEAST & MOLD	NMT 100,000 cfu (Combined)	160	1,800	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.

Authorized By (Name // Title):

Tony Saben / Manager

Signature:

Tony Saben

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis

Sample Identification Information

<u>Date of Analysis</u> 4/9/2024	<u>Country of Origin</u> VANUATU
<u>Sample:</u> S2095	<u>Country of Processing</u> USA
<u>Product Name</u> TABOO	<u>Manufacture Date</u> Feb-24
<u>Lot#</u> VSSC2402-T4	<u>Best By Date</u> Feb-27

General Product Specifications

<u>Product Species</u> Piper Methysticum	<u>Common Names</u> Kava kava, Awa, Yagona
<u>Part Used</u> Root	<u>Appearance</u> Yellow, Brown, beige powder

<u>Analyzed Characteristics</u>	<u>Specification</u>	<u>Result</u>	<u>Test Method</u>
<u>Standardization</u>	2-17% Kavalactones	7.64%	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>		243561	HPLC
<u>K/DHM</u>		2.3	Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2448			
Methysticin	M	1	2.21	629.379	8.61%	0.75%	6
Dihydromethysticin	DHM	2	3.38	513.6	7.03%	0.94%	5
Kavain	K	3	1	3965.084	54.27%	2.15%	4
Dihydrokavain	DHK	4	3.48	1154.187	15.80%	2.18%	2
Desmethoxyyangonin	DMY	5	2.52	432.449	5.92%	0.59%	1
Yangonin	Y	6	3.12	611.408	8.37%	1.03%	3
Kavalactones			Total:	7306.107	100.00%	7.64%	243561

*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

Hustle Youngs

Date

4/11/24

SAMPLE S2095
Vial 11

0.75082g/50mL

wavelength 246 nm

Path: \CHEM32\1\DATA\KAVA_04_09_2024_15MINSTDTESTMETHOD 2024-04-09 16-31-10\01->

SEQUENCE C:\CHEM32\1\DATA\KAVA_04_09_2024_ ->

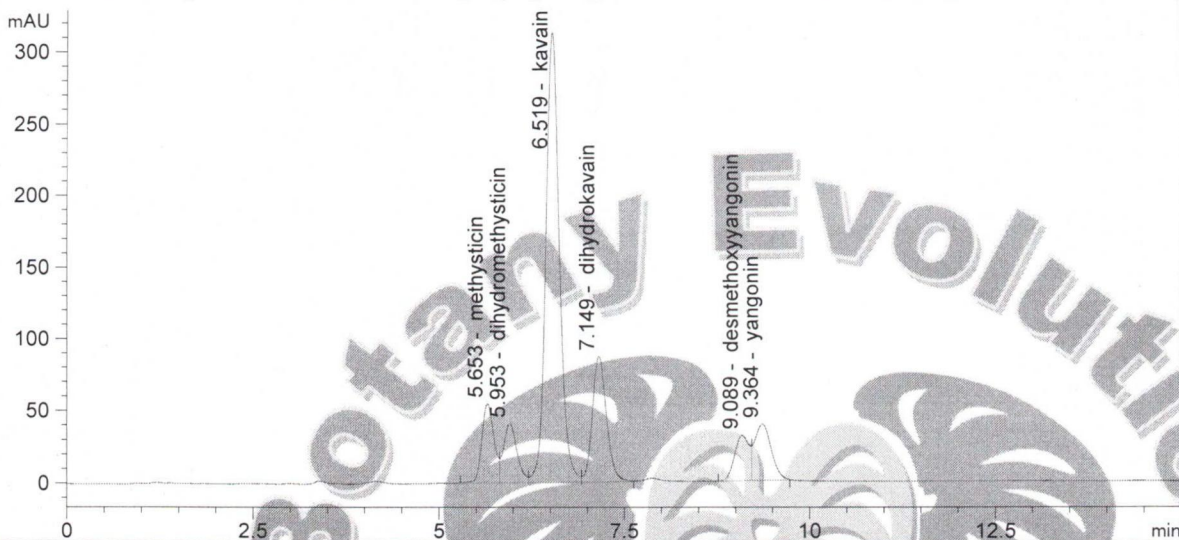
Injection date 4/9/2024

Injection time 8:18:27 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA_04_09_2024->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_04_09_2024_15MINSTDTESTMETHOD 2024-04-09 16-31-10\011-1101.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.653	629.379	8.61	0.000
2	dihydromethysticin	5.953	513.600	7.03	0.000
3	kavain	6.519	3965.084	54.27	0.000
4	dihydrokavain	7.149	1154.187	15.80	0.000
5	desmethoxyyangonin	9.089	432.449	5.92	0.000
6	yangonin	9.364	611.408	8.37	0.000

*4/11/24
by*