Botany Evolution LLC
2510 Kirby Circle NE Suite 110
Palm Bay, FL 32905
(321) 802 - 4583
botanyevolution@gmail.com

CERTIFICATE OF ANALYSIS

GENERAL INFORMATION

Report Date	12/17/2024	Country of Origin	Vanuatu
Sample Number	S2193	Country of Processing	USA
Product Name	Taboo	Manufacture Date	Dec-24
Lot Number	VSSC2411-T12	Best By Date	Dec-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	8.52%	HPLC
Kavalactone Profile	Noble	Pass	HPLC
Chemotype	If # 5 is in 1st or 2nd in Abundance	245361	HPLC
K/DHM	> 1.2 for Noble	2.2	Calculation
HEAVY METALS			
		Results	
Arsenic (As)	NMT 1,000 (ppb)*	37.4 ppb	FDA EAM 4.7
Cadmium (Cd)	NMT 1,000 (ppb)*	376 ppb	FDA EAM 4.7
Lead (Pb)	NMT 1,000 (ppb)*	68.8 ppb	FDA EAM 4.7
Mercury (Hg)	NMT 1,000 (ppb)*	< 10 ppb	FDA EAM 4.7
MICROBIOLOGICAL			
		Results	
AEROBIC PLATE COUNT	NMT 10,000,000 cfu	34,300 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 62
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)	1,010 cfu / 10 g	USP 2021
MOLD		340 cfu / 10 g	
TOTAL YEAST & MOLD	NMT 100,000 cfu (Combined)	1350 cfu / 10 g	

*Heavy Metals Action Limits Based on Maximum PDE at 5% Kavalactones. Results May Exceed 1,000 ppb action limit with higher kavalactone contents.

:fu/g = Colony Forming Units Per Gran 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: _____ Title: Manager Signature: 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: S2193
Product Name TABOO
Lot# VSSC2411-T12

Country of Origin VANUATU
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	8.52%	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		245361	HPLC
K/DHM		2.2	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	689.301	8.97%	0.87%	6
Dihydromethysticin	DHM	2	3.38	560.231	7.29%	1.08%	5
Kavain	K	3	1	4101.251	53.36%	2.33%	4
Dihydrokavain	DHK	4	3.48	1260.388	16.40%	2.50%	2
Desmethoxyyangonin	DMY	5	2.52	494.817	6.44%	0.71%	1
Yangonin	Y	6	3.12	579.4	7.54%	1.03%	3
Kavalactones			**Total:**	**7685.388**	**100.00%**	**8.52%**	**245361**

*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 Mustl Youngs Date 12/18/24

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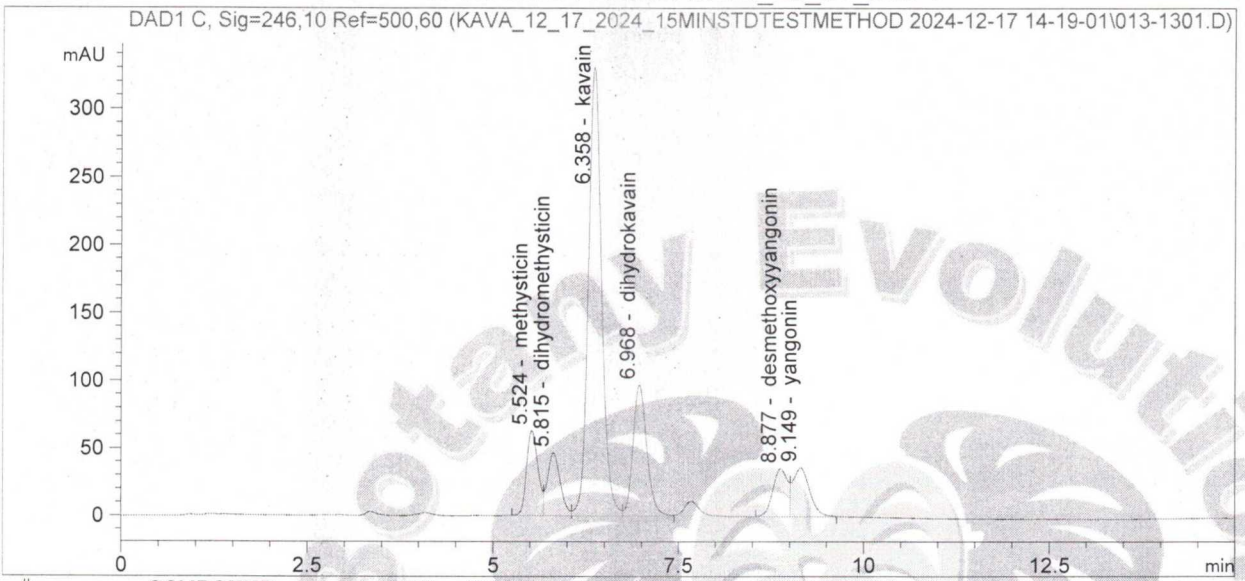
Kavalactone Analysis

SAMPLE S2193
Vial 13

0.75668g/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 6:37:55 PM
Acq. operator KRISTL
Method C:\CHEM32\1\DATA\KAVA_12_17_202->



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.524	689.301	8.97	0.000
2	dihydromethysticin	5.815	560.231	7.29	0.000
3	kavain	6.358	4101.251	53.36	0.000
4	dihydrokavain	6.968	1260.388	16.40	0.000
5	desmethoxyyangonin	8.877	494.817	6.44	0.000
6	yangonin	9.149	579.400	7.54	0.000

12/18/24