

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis**Sample Identification Information**Date of Analysis 1/8/2018Sample: S0304Product Name CEREMONIALLot# VFE171222CCountry of Origin VANUATUCountry of Processing VANUATUManufacture Date 12/22/17Expiration Date 12/22/20**General Product Specifications**Product Species Piper MethysticumPart Used RootCommon Names Kava kava, Awa, YagonaAppearance Beige powder**Analyzed Characteristics****Specification****Result****Test Method**Standardization

2-15% Kavalactones

8.74%

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

243516

HPLC

K/DHM

2.94

Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2896.159			
Methysticin	M	1	2.19	681.99	7.66%	0.73%	6
Dihydromethysticin	DHM	2	3.23	523.667	5.88%	0.82%	5
Kavain	K	3	1	4978.627	55.92%	2.42%	4
Dihydrokavain	DHK	4	4.21	1380.139	15.50%	2.83%	2
Desmethoxyyangonin	DMY	5	2.74	558.796	6.28%	0.74%	1
Yangonin	Y	6	3.16	780.679	8.77%	1.20%	3
Kavalactones			Total:	8903.898	100.00%	8.74%	243516

*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.

*Mustie Youngs**1/10/18*

SAMPLE S0304
Vial 11

0.75972 g/50 ml

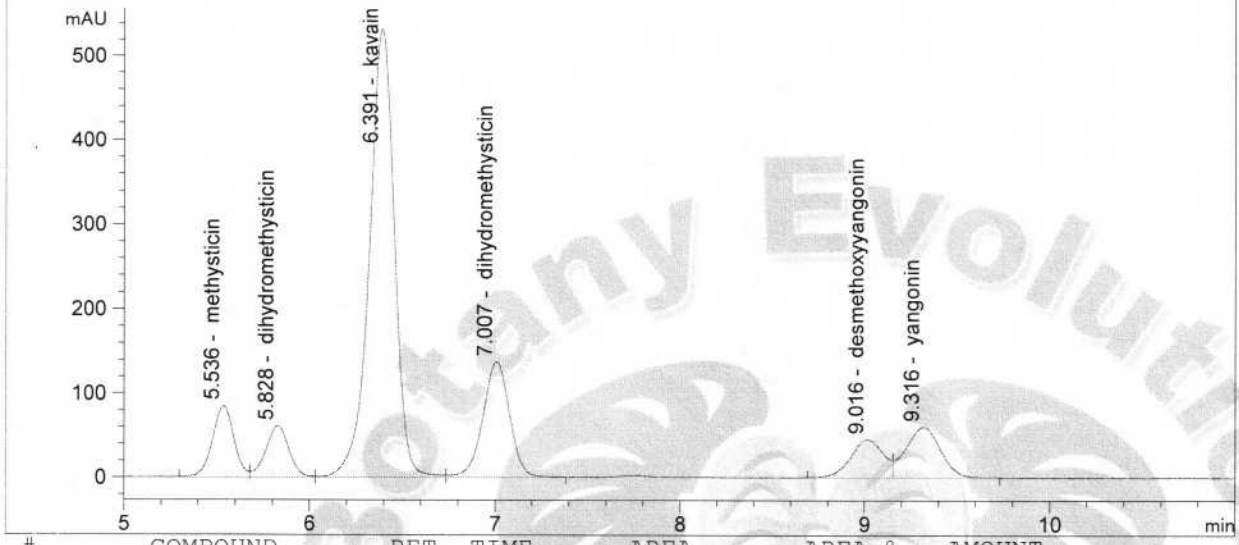
wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_1_8_2018_15MINSTDTESTMETHOD 2018-01-08 15-05-22\011-->
SEQUENCE C:\CHEM32\1\DATA\KAVA_1_8_2018_ ->

Injection date 1/8/2018
Injection time 7:07:37 PM
Acq. operator KRISTL

Method C:\CHEM32\1\METHODS\KAVA15MIN STD TEST.M

DAD1 C, Sig=246,10 Ref=500.60 (KAVA_1_8_2018_15MINSTDTESTMETHOD 2018-01-08 15-05-22\011-1201.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.536	681.990	7.66	0.000
2	dihydromethysticin	5.828	523.667	5.88	0.000
3	kavain	6.391	4978.627	55.92	0.000
4	dihydromethysticin	7.007	1380.139	15.50	0.001
5	desmethoxyyangonin	9.016	558.796	6.28	0.000
6	yangonin	9.316	780.679	8.77	0.000

Handwritten signature: vj
1/10/18