

**Botany Evolution LLC**

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

**Certificate Of Analysis****Sample Identification Information**Date of Analysis 3/8/2018Sample: S0368Product Name CEREMONIALLot# VSSC180216CCountry of Origin/Region VANUATUCountry of Processing USAManufacture Date 02/16/18Expiration Date 02/16/21**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

6.31%

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

2.71

Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2951.927			
Methysticin	M	1	2.19	513.428	8.00%	0.54%	6
Dihydromethysticin	DHM	2	3.23	402.666	6.27%	0.63%	5
Kavain	K	3	1	3519.106	54.81%	1.69%	4
Dihydrokavain	DHK	4	4.21	1021.169	15.91%	2.07%	2
Desmethoxyyangonin	DMY	5	2.74	419.048	6.53%	0.55%	1
Yangonin	Y	6	3.16	544.601	8.48%	0.83%	3
Kavalactones			<b>Total:</b>	<b>6420.018</b>	<b>100.00%</b>	<b>6.31%</b>	<b>243516</b>

\*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.

Mustle Youngs

3/9/18

SAMPLE S0368

Vial 14

0.75376g/50ml

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA\_3\_8\_2018\_15MINSTDTESTMETHOD 2018-03-08 14-07-24\014-->

SEQUENCE C:\CHEM32\1\DATA\KAVA\_3\_8\_2018\_ ->

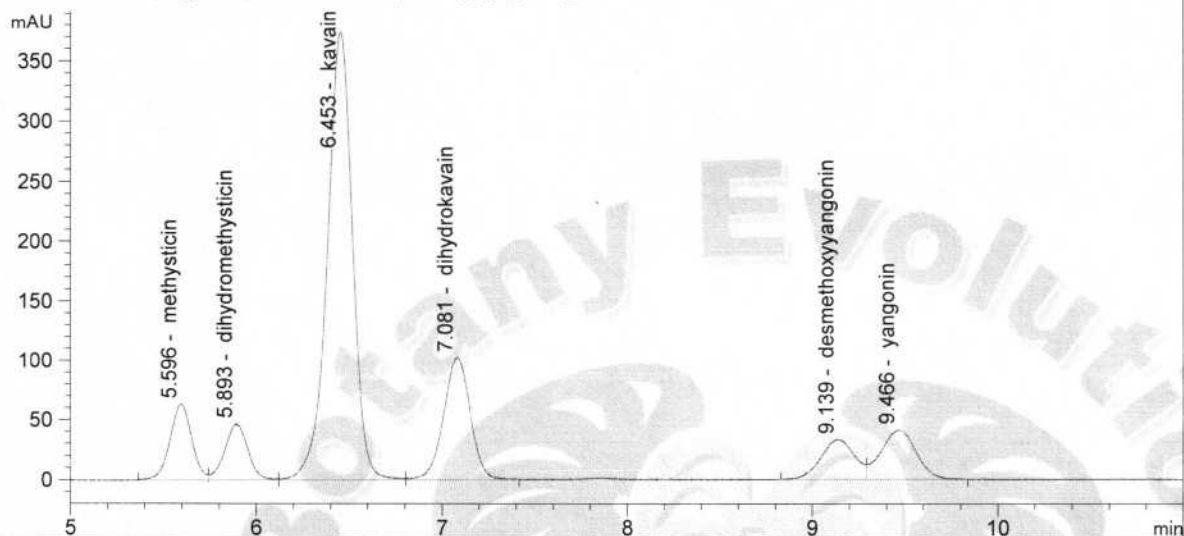
Injection date 3/8/2018

Injection time 6:58:41 PM

Acq. operator KRISTL

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

DAD1 C, Sig=246,10 Ref=500,60 (KAVA\_3\_8\_2018\_15MINSTDTESTMETHOD 2018-03-08 14-07-24\014-1501.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.596	513.428	8.00	0.000
2	dihydromethysticin	5.893	402.666	6.27	0.000
3	kavain	6.453	3519.106	54.81	0.000
4	dihydrokavain	7.081	1021.169	15.91	0.000
5	desmethoxyyangonin	9.139	419.048	6.53	0.000
6	yangonin	9.466	544.601	8.48	0.000

3/9/18  
KJ