

**Botany Evolution LLC**

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

**Certificate Of Analysis****Sample Identification Information**Date of Analysis 8/24/2018Sample: S0521Product Name CEREMONIALLot# VFE180727CCountry of Origin/Region VANUATUCountry of Processing VANUATUManufacture Date 07/27/18Expiration Date 07/27/21**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

10.35%

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

243561

HPLC

K/DHM

2.60

Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2456.889			
Methysticin	M	1	2.21	501.693	8.21%	0.91%	6
Dihydromethysticin	DHM	2	3.38	393.586	6.44%	1.05%	5
Kavain	K	3	1	3310.437	54.19%	2.74%	4
Dihydrokavain	DHK	4	3.08	933.687	15.28%	3.25%	2
Desmethoxyyangonin	DMY	5	2.52	398.457	6.52%	0.90%	1
Yangonin	Y	6	3.12	571.55	9.36%	1.49%	3
Kavalactones			<b>Total:</b>	<b>6109.410</b>	<b>100.00%</b>	<b>10.35%</b>	<b>243561</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.

*Mustel Youngs 8/27/18*

SAMPLE S0521  
Vial 11

0.50092g/50ML

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA\_8\_24\_2018\_15MINSTDTESTMETHOD 2018-08-24 15-28-44\011->  
SEQUENCE

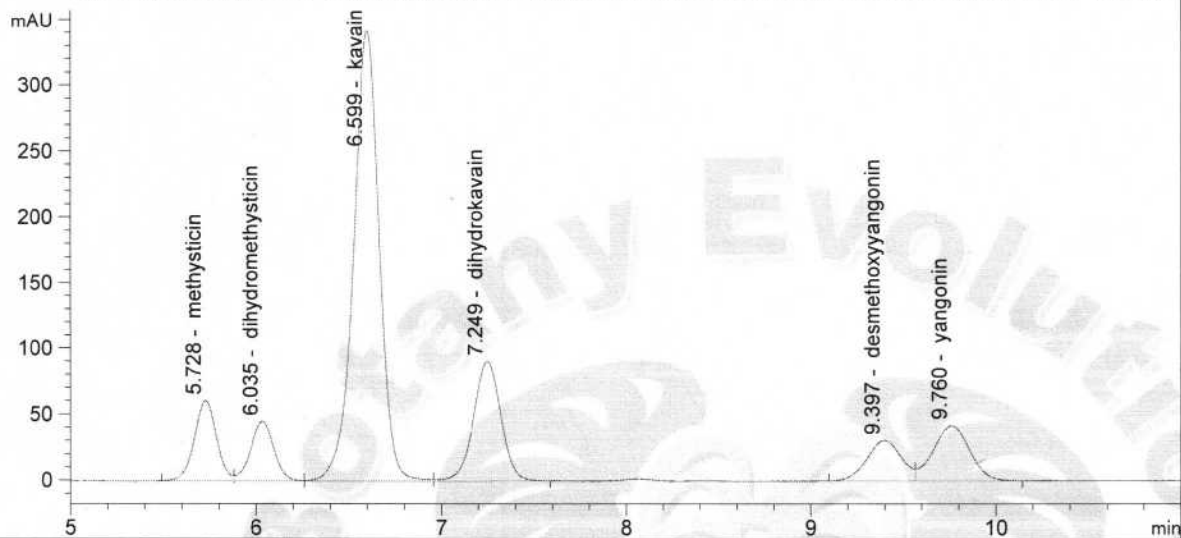
Injection date 8/24/2018

Injection time 7:31:48 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA\_8\_24\_201->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA\_8\_24\_2018\_15MINSTDTESTMETHOD 2018-08-24 15-28-44\011-1201.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.728	501.693	8.21	0.011
2	dihydromethysticin	6.035	393.586	6.44	0.012
3	kavain	6.599	3310.437	54.19	0.029
4	dihydrokavain	7.249	933.687	15.28	0.081
5	desmethoxyyangonin	9.397	398.457	6.52	0.013
6	yangonin	9.760	571.550	9.36	0.014

8/27/18  
VS