

**Botany Evolution LLC**

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

**Certificate Of Analysis****Sample Identification Information**Date of Analysis 3/6/2019Sample: S0612Product Name CEREMONIALLot# VFE190218CCountry of Origin VANUATUCountry of Processing VANUATUManufacture Date 02/18/19Best By Date 02/18/22**General Product Specifications**Product Species Piper MethysticumPart Used RootCommon Names Kava kava, Awa, YagonaAppearance Beige powder**Analyzed Characteristics****Specification****Result****Test Method**Standardization

2-17% Kavalactones

9.26%

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

3.03

Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2596.749			
Methysticin	M	1	2.21	685.646	7.57%	0.76%	6
Dihydromethysticin	DHM	2	3.38	521.103	5.76%	0.85%	5
Kavain	K	3	1	5093.753	56.27%	2.59%	4
Dihydrokavain	DHK	4	3.08	1426.594	15.76%	3.05%	2
Desmethoxyyangonin	DMY	5	2.52	560.855	6.20%	0.78%	1
Yangonin	Y	6	3.12	765.164	8.45%	1.23%	3
Kavalactones			<b>Total:</b>	<b>9053.115</b>	<b>100.00%</b>	<b>9.26%</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.

Chemist

*Muste Youngs*

Date

3/7/19

SAMPLE S0612  
Vial 12

0.77219g/50 mL

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA\_3\_6\_2019\_15MINSTDTESTMETHOD 2019-03-06 16-40-56\012-->

SEQUENCE C:\CHEM32\1\DATA\KAVA\_3\_6\_2019\_ -->

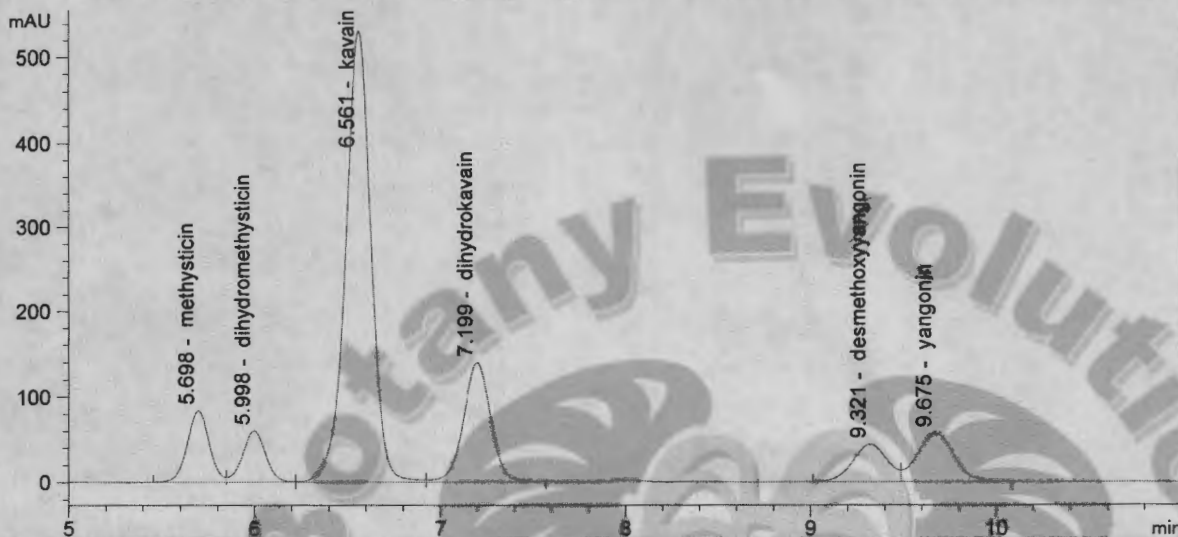
Injection date 3/6/2019

Injection time 8:59:54 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA\_3\_6\_201->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA\_3\_6\_2019\_15MINSTDTESTMETHOD 2019-03-06 16-40-56\012-1301.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.698	685.646	7.57	0.000
2	dihydromethysticin	5.998	521.103	5.76	0.000
3	kavain	6.561	5093.753	56.27	0.000
4	dihydrokavain	7.199	1426.594	15.76	0.000
5	desmethoxyyangonin	9.321	560.855	6.20	0.000
6	yangonin	9.675	765.164	8.45	0.000

3/7/19  
MS