

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis**Sample Identification Information**

<u>Date of Analysis</u> 8/28/2017	<u>Country of Origin</u> VANUATU
<u>Sample:</u> S0186	<u>Country of Processing</u> VANUATU
<u>Product Name</u> CEREMONIAL	<u>Manufacture Date</u> 07/30/17
<u>Lot#</u> VFE170730C	<u>Expiration Date</u> 07/30/20

General Product Specifications

<u>Product Species</u> Piper Methysticum	<u>Common Names</u> Kava kava, Awa, Yagona
<u>Part Used</u> Root	<u>Appearance</u> Beige powder

<u>Analyzed Characteristics</u>	<u>Specification</u>	<u>Result</u>	<u>Test Method</u>
<u>Standardization</u>	2-15% Kavalactones	10.17%	HPLC
<u>Identification</u>	Complies by HPLC	Conform	HPLC
<u>Kavalactone Profile</u>	Noble	PASS	HPLC
<u>Mesh Size</u>	60-30	60	Sieve
<u>Color</u>	Beige to Yellow	Pass	Visual
<u>Odor</u>		Pass	Organoleptic
<u>Taste</u>		Pass	Organoleptic
<u>Chemotype</u>		243516	HPLC
<u>K/DHM</u>		3.05	Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2828.846			
Methysticin	M	1	2.19	724.092	7.21%	0.79%	6
Dihydromethysticin	DHM	2	3.23	567.976	5.66%	0.915%	5
Kavain	K	3	1	5592.053	55.71%	2.79%	4
Dihydrokavain	DHK	4	4.21	1623.703	16.18%	3.41%	2
Desmethoxyyangonin	Y	5	2.74	666.536	6.64%	0.910%	1
Yangonin	DMY	6	3.16	862.988	8.60%	1.36%	3
Kavalactones			Total:	10037.348	100.00%	10.17%	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.

Mustel Youngs 9/11/17

SAMPLE S0186
 Vial 15

0.75878g/50ml

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_8_29_2017_15MINSTDTESTMETHOD 2017-08-29 16-49-02\015->

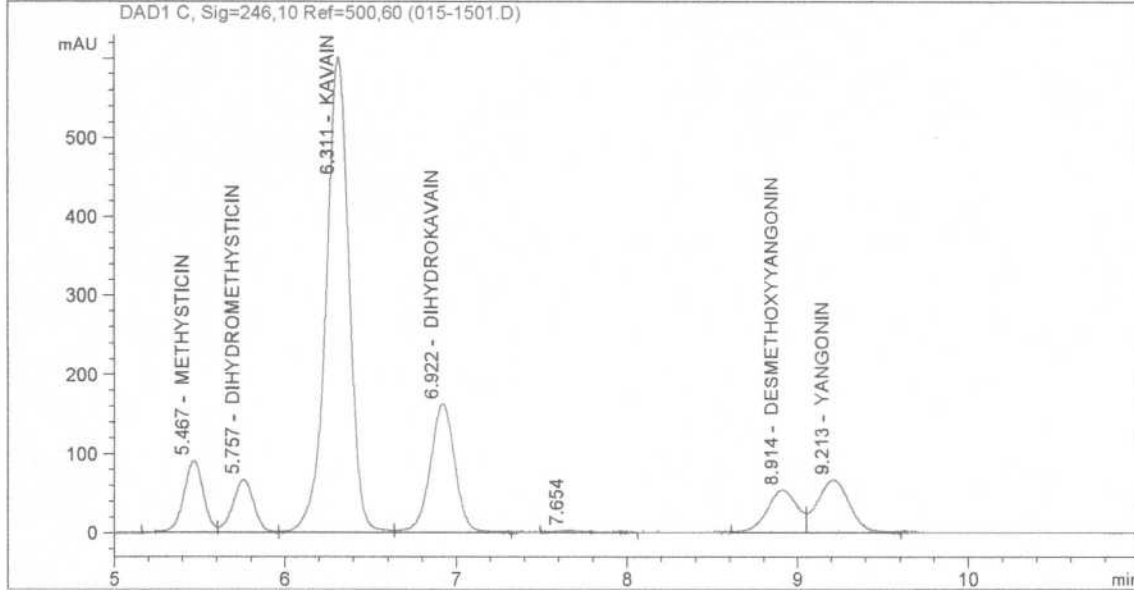
SEQUENCE C:\Chem32\1\DATA\KAVA_8_29_2017_ ->

Injection date 8/29/2017

Injection time 9:08:01 PM

Acq. operator KRISTL

Method C:\Chem32\1\DATA\KAVA_8_29_201->



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1		1.019	33.165	0.32	0.000
2		1.466	20.095	0.19	0.000
3		1.702	23.764	0.23	0.000
4		2.135	16.653	0.16	0.000
5		2.282	13.553	0.13	0.000
6		2.413	22.781	0.22	0.000
7		2.816	14.894	0.14	0.000
8		3.099	21.991	0.21	0.000
9		3.202	25.291	0.25	0.000
10		3.894	29.552	0.29	0.000
11		3.995	33.576	0.33	0.000
12	METHYSTICIN	5.467	724.092	7.02	0.000
13	DIHYDROMETHYSTICIN	5.757	567.976	5.51	0.000
14	KAVAIN	6.311	5592.053	54.21	0.000
15	DIHYDROKAVAIN	6.922	1623.703	15.74	0.001
16		7.654	21.981	0.21	0.000
17	DESMETHOXYANGONIN	8.914	666.536	6.46	0.000
18	YANGONIN	9.213	862.988	8.37	0.000