

Botany Evolution LLC

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Palm Bay, FL 32945
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Certificate Of Analysis

Sample Identification Information

Date of Analysis 11/22/2017
Sample: S0267
Product Name CEREMONIAL
Lot# VBE171116C

Country of Origin VANUATU
Country of Processing USA
Manufacture Date 11/16/17
Expiration Date 11/16/20

General Product Specifications

Product Species Piper Methysticum
Part Used Root

Common Names Kava kava, Awa, Yagona
Appearance Beige powder

Analyzed Characteristics	Specification	Result	Test Method
<u>Standardization</u>	20-90% Kavalactones	6.60%	HPLC
<u>Identification</u>	Complies by HPLC	Conform	HPLC
<u>Kavalactone Profile</u>	Noble	PASS	HPLC
<u>Mesh Size</u>	60-30	30	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>		2.56	Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2914.19			
Methysticin	M	1	2.19	457.828	6.97%	0.48%	6
Dihydromethysticin	DHM	2	3.23	425.27	6.47%	0.66%	5
Kavain	K	3	1	3511.356	53.42%	1.68%	4
Dihydrokavain	DHK	4	4.21	1153.249	17.55%	2.32%	2
Desmethoxyyangonin	DMY	5	2.74	411.13	6.26%	0.54%	1
Yangonin	Y	6	3.16	613.799	9.34%	0.93%	3
Kavalactones			Total:	6572.632	100.00%	6.60%	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.

Must Young 11/21/17

SAMPLE S0267
Vial 13

0.76832g/50ml

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_11_21_2017_15MINSTDTESTMETHOD 2017-11-21 15-55-07\01->

SEQUENCE C:\CHEM32\1\DATA\KAVA_11_21_2017_ ->

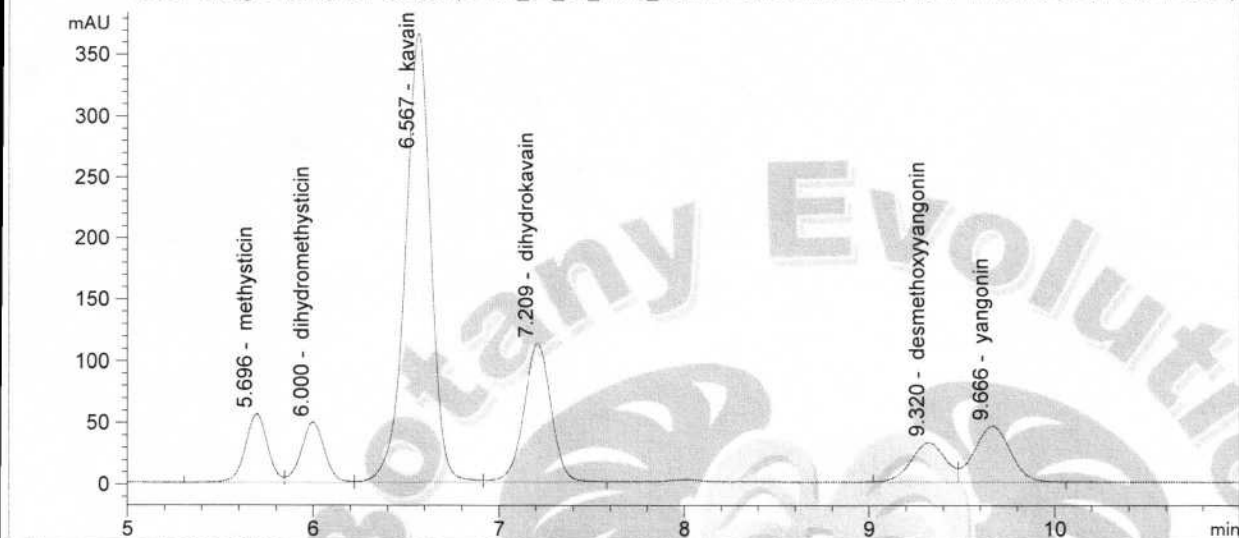
Injection date 11/21/2017

Injection time 7:57:42 PM

Acq. operator KRISTL

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

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_11_21_2017_15MINSTDTESTMETHOD 2017-11-21 15-55-07\013-1401.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.696	457.828	6.97	0.000
2	dihydromethysticin	6.000	425.270	6.47	0.000
3	kavain	6.567	3511.356	53.42	0.000
4	dihydrokavain	7.209	1153.249	17.55	0.001
5	desmethoxyyangonin	9.320	411.130	6.26	0.000
6	yangonin	9.666	613.799	9.34	0.000

11/21/17
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