

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis**Sample Identification Information**Date of Analysis 2/6/2018Sample: S0332Product Name CEREMONIALLot# VFE180122CCountry of Origin VANUATUCountry of Processing VANUATUManufacture Date 01/22/18Expiration Date 01/22/21**General Product Specifications**Product Species Piper MethysticumPart Used RootCommon Names Kava kava, Awa, YagonaAppearance Beige powder

<u>Analyzed Characteristics</u>	<u>Specification</u>	<u>Result</u>	<u>Test Method</u>
<u>Standardization</u>	2-15% Kavalactones	8.87%	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>		243561	HPLC
<u>K/DHM</u>		2.91	Calculation

Kavalactones	Code	Peaks Ref.	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2988.211			
Methysticin	M	1	2.19	705.861	7.61%	0.73%	6
Dihydromethysticin	DHM	2	3.23	551.567	5.95%	0.84%	5
Kavain	K	3	1	5180.164	55.84%	2.45%	4
Dihydrokavain	DHK	4	4.21	1439.711	15.52%	2.87%	2
Desmethoxyyangonin	DMY	5	2.74	600.422	6.47%	0.78%	1
Yangonin	Y	6	3.16	798.634	8.61%	1.20%	3
Kavalactones			Total:	9276.359	100.00%	8.87%	243561

*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

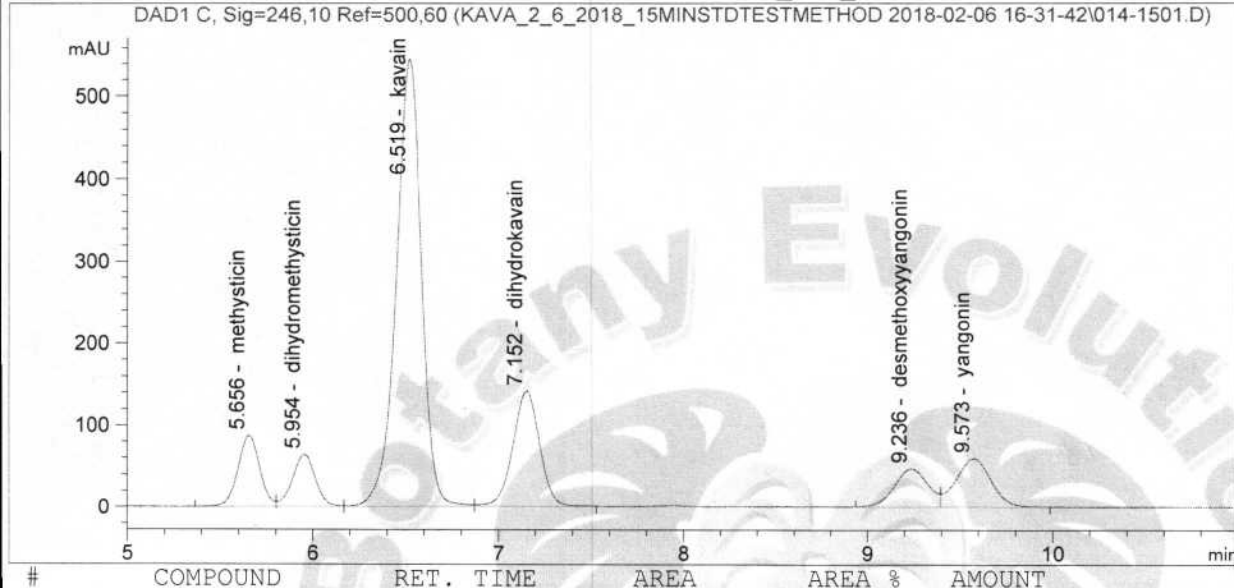
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Justin Youngs 2/7/18

SAMPLE S0332
 Vial 14

0.75619g/50ml

wavelength 246 nm
 C:\CHEM32\1\DATA\KAVA_2_6_2018_15MINSTDTESTMETHOD 2018-02-06 16-31-42\014-->
 SEQUENCE C:\CHEM32\1\DATA\KAVA_2_6_2018_ ->
 Injection date 2/6/2018
 Injection time 9:22:42 PM
 Acq. operator KRISTL
 Method C:\CHEM32\1\METHODS\KAVA15MIN STD_TEST.M



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.656	705.861	7.61	0.000
2	dihydromethysticin	5.954	551.567	5.95	0.000
3	kavain	6.519	5180.164	55.84	0.000
4	dihydrokavain	7.152	1439.711	15.52	0.001
5	desmethoxyyangonin	9.236	600.422	6.47	0.000
6	yangonin	9.573	798.634	8.61	0.000

Handwritten signature and date:
 2/7/18