

**Botany Evolution LLC**

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**Certificate Of Analysis****Sample Identification Information****Date of Analysis** 2/28/2017**Sample:** S0091**Product Name** INSTANT CEREMONIAL**Lot#** VBE161130CI**Country of Origin** VANUATU**Country of Processing** USA**Manufacture Date** 11/30/16**Expiration Date** 11/30/19**General Product Specifications****Product Species** Piper Methysticum**Part Used** Root**Common Names** Kava kava, Awa, Yagona**Appearance** Beige powder

<b><u>Analyzed Characteristics</u></b>	<b><u>Specification</u></b>	<b><u>Result</u></b>	<b><u>Test Method</u></b>
<b><u>Standardization</u></b>	2-15% Kavalactones	9.73%	HPLC
<b><u>Identification</u></b>	Complies by HPLC	Conform	HPLC
<b><u>Kavalactone Profile</u></b>	Noble	PASS	HPLC
<b><u>Mesh Size</u></b>	60-30	60	Sieve
<b><u>Color</u></b>	Beige to Yellow	Pass	Visual
<b><u>Odor</u></b>		Pass	Organoleptic
<b><u>Taste</u></b>		Pass	Organoleptic
<b><u>Chemotype</u></b>		245361	HPLC
<b><u>K/DHM</u></b>		1.75	Calculation

<b>Kavalactones</b>	<b>Code</b>	<b>Peaks Ref.</b>	<b>Correction Factor</b>	<b>Area *</b>	<b>Area %</b>	<b>Corrected Kavalactones</b>	<b>Chemotype Identifier</b>
Standard Kavain	K			2630.323			
Methysticin	M	1	2.19	991.436	11.29%	1.14%	<b>6</b>
Dihydromethysticin	DHM	2	3.23	769.61	8.76%	1.30%	<b>5</b>
Kavain	K	3	1	4359.123	49.64%	2.28%	<b>4</b>
Dihydrokavain	DHK	4	4.21	1330.16	15.15%	2.93%	<b>2</b>
Desmethoxyyangonin	Y	5	2.74	569.001	6.48%	0.82%	<b>1</b>
Yangonin	DMY	6	3.16	762.753	8.69%	1.26%	<b>3</b>
<b>Kavalactones</b>			<b>Total:</b>	<b>8782.083</b>	<b>100.00%</b>	<b>9.73%</b>	<b>245361</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.

SAMPLE S0091  
Vial 6

wt 0.77668g

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA\_2\_28\_2017\_STD\_CHECK\_15MINMETHOD 2017-02-28 15-42-26\->

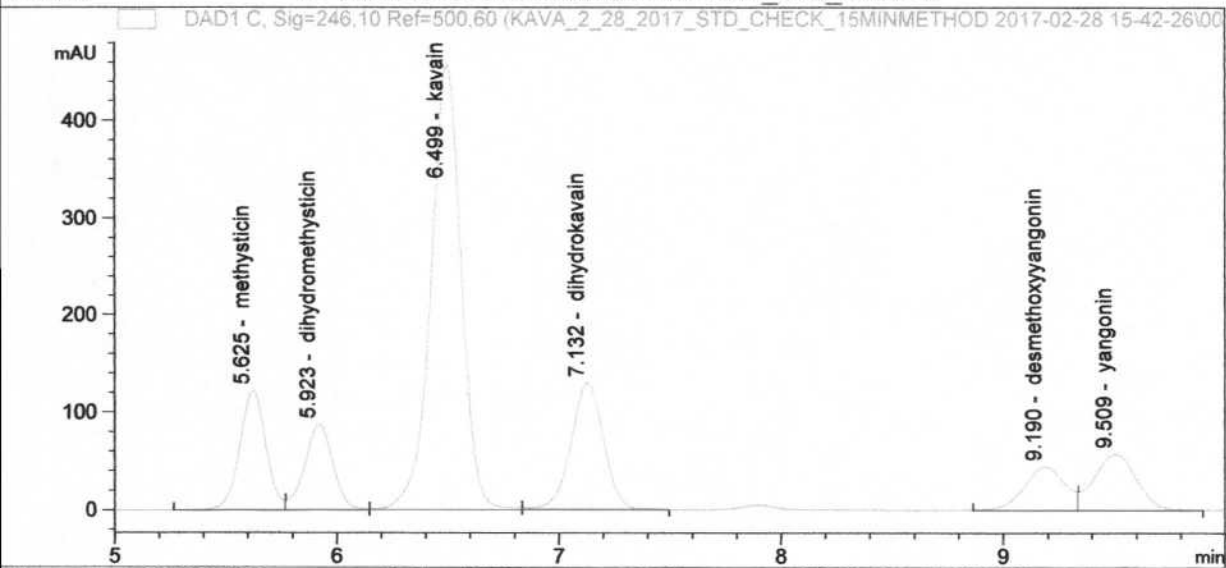
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Injection date 2/28/2017

Injection time 8:33:25 PM

Acq. operator KRISTL

Method C:\CHEM32\1\METHODS\KAVA15MIN\_STD\_TEST.M



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.625	991.436	11.29	0.070
2	dihydromethysticin	5.923	769.610	8.76	0.071
3	kavain	6.499	4359.123	49.64	1.643
4	dihydrokavain	7.132	1330.160	15.15	0.345
5	desmethoxyyangonin	9.190	569.001	6.48	0.041
6	yangonin	9.509	762.753	8.69	0.064