

Botany Evolution LLC

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

Certificate Of Analysis**Sample Identification Information**Date of Analysis 9/18/2019Sample: S0717Product Name HEADHUNTERLot# SIV190814GHCountry of Origin SOLOMON ISLANDSCountry of Processing SOLOMON ISLANDSManufacture Date 08/14/19Best By Date 08/14/22**General Product Specifications**Product Species Piper MethysticumPart Used RootCommon Names Kava kava, Awa, YagonaAppearance Yellow, beige powder

<u>Analyzed Characteristics</u>	<u>Specification</u>	<u>Result</u>	<u>Test Method</u>
<u>Standardization</u>	2-17% Kavalactones	10.58%	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>		245631	HPLC
<u>K/DHM</u>		1.53	Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2410.626			
Methysticin	M	1	2.21	935.718	11.02%	1.12%	6
Dihydromethysticin	DHM	2	3.38	780.432	9.19%	1.38%	5
Kavain	K	3	1	3847.657	45.31%	2.10%	4
Dihydrokavain	DHK	4	3.08	1801.481	21.21%	4.15%	2
Desmethoxyyangonin	DMY	5	2.52	527.992	6.22%	0.79%	1
Yangonin	Y	6	3.12	599.371	7.06%	1.04%	3
Kavalactones			Total:	8492.651	100.00%	10.58%	245631

*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

Justin Young

Date

9/19/19

SAMPLE S0717
Vial 14

0.75539g/50ml

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_9_18_2019_15MINSTDTESTMETHOD 2019-09-18 15-50-27\014->

SEQUENCE C:\CHEM32\1\DATA\KAVA_9_18_2019_ ->

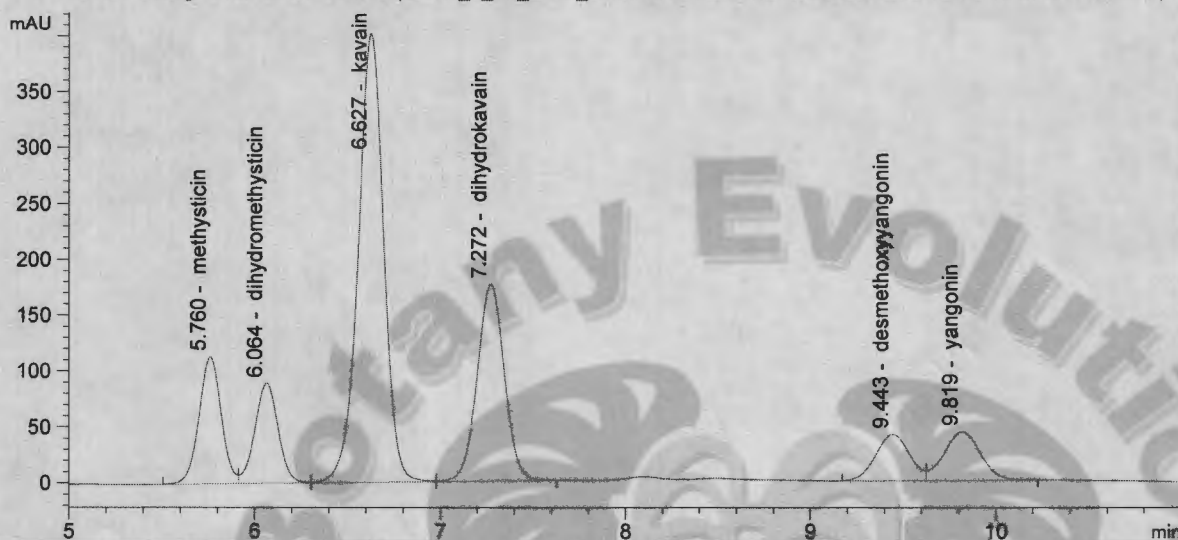
Injection date 9/18/2019

Injection time 8:25:39 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA_9_18_201->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_9_18_2019_15MINSTDTESTMETHOD 2019-09-18 15-50-27\014-1401.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.760	935.718	11.02	0.000
2	dihydromethysticin	6.064	780.432	9.19	0.000
3	kavain	6.627	3847.657	45.31	0.000
4	dihydrokavain	7.272	1801.481	21.21	0.000
5	desmethoxyyangonin	9.443	527.992	6.22	0.000
6	yangonin	9.819	599.371	7.06	0.000

Alkaline
yz