

**Botany Evolution LLC**

510 Kirby Circle NE

Miami Beach, FL 33145

21-802-4583

**Certificate Of Analysis****Sample Identification Information**Date of Analysis 2/18/2022Sample: S1464Product Name 30% KAVA EXTRACTBatch # CJ220106KE30Country of Origin

VANUATU

Country of Processing

CHINA

Manufacture Date

08/01/20

Best By Date

07/31/23

**General Product Specifications**Product Species Piper MethysticumPart Used RootCommon Names

Kava kava, Awa, Yagona

Appearance

YELLOW POWDER

**Analyzed Characteristics****Specification****Result****Test Method**Standardization

20-90% Kavalactones

31.19%

HPLC

Identification

Complies by HPLC

Conform

HPLC

Kavalactone Profile

Noble

PASS

HPLC

Mesh Size

60-30

30

Sieve

Color

Beige to Yellow

Pass

Visual

Odor

Pass

Organoleptic

Taste

Pass

Organoleptic

Chemotype

245316

HPLC

K/DHM

2.2

Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			13017.924			
Methysticin	M	1	2.21	2485.868	8.95%	2.93%	6
Dihydromethysticin	DHM	2	3.38	2056.108	7.40%	3.57%	5
Kavain	K	3	1	14561.079	52.43%	7.82%	4
Dihydrokavain	DHK	4	3.08	4619.322	16.63%	10.45%	2
Desmethoxyyangonin	DMY	5	2.52	2007.149	7.23%	2.96%	1
Yangonin	Y	6	3.12	2042.255	7.35%	3.47%	3
Kavalactones			<b>Total:</b>	<b>27771.781</b>	<b>100.00%</b>	<b>31.19%</b>	<b>245316</b>

\*See data in attachment HPLC1100 Agilent Certificate with Chromatogram graph.

This result is 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

*Rustl Youngs*

Date

*2/21/22*

Botany Evolution LLC  
510 Kirby Circle NE  
Alam Bay, FL 32945  
21-802-4583

Kavalactone Analysis

SAMPLE S1464  
Vial 21

0.35831g/25mL

Wavelength 246 nm

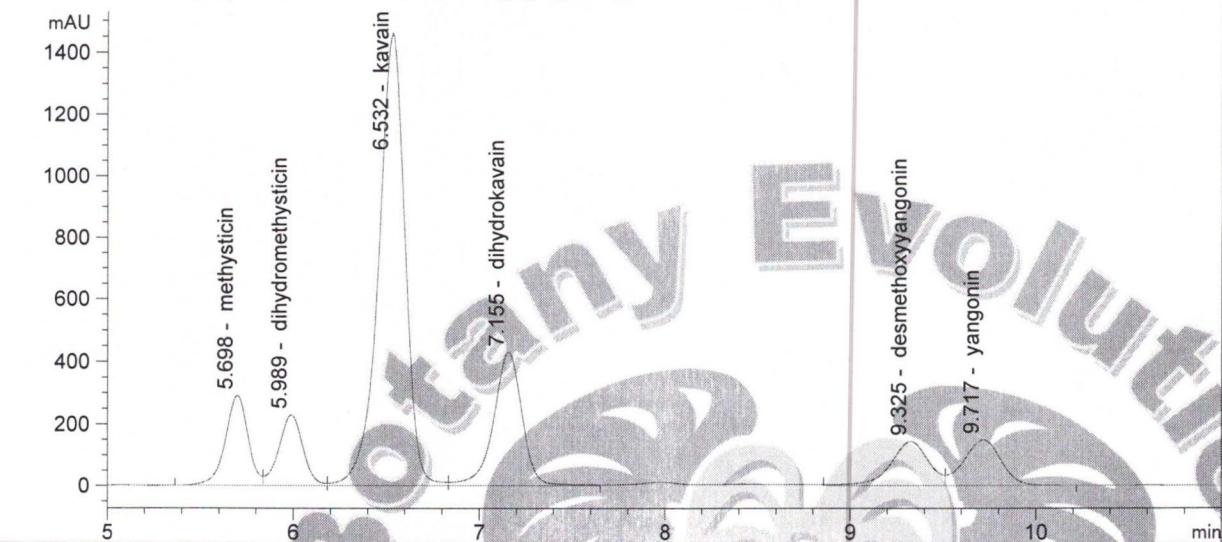
Path: \CHEM32\1\DATA\KAVA\_2\_18\_2022\_15MINSTDTESTMETHOD 2022-02-18 17-57-53\021->  
SEQUENCE C:\CHEM32\1\DATA\KAVA\_2\_18\_2022\_ ->

Injection date 2/19/2022  
Injection time 12:39:50 AM

Operator KRISTL

Method C:\CHEM32\1\DATA\KAVA\_2\_18\_2022->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA\_2\_18\_2022\_15MINSTDTESTMETHOD 2022-02-18 17-57-53\021-2101.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
	methysticin	5.698	2485.868	8.95	0.000
	dihydromethysticin	5.989	2056.108	7.40	0.000
	kavain	6.532	14561.079	52.43	0.001
	dihydrokavain	7.155	4619.322	16.63	0.001
	desmethoxyyangonin	9.325	2007.149	7.23	0.000
	yangonin	9.717	2042.255	7.35	0.000

2/21/22  
KR

Microbiological and Heavy Metal  
Certificate Of AnalysisSample Identification InformationDate of Analysis 8/8/2020Sample: S1464Product Name 30% KAVA EXTRACTLot# CJ220106KE30Country of Origin VANUATUCountry of Processing USAManufacture Date 08/01/20Expiration Date 07/31/23General Product SpecificationsProduct Species Piper MethysticumPart Used RootCommon Names Kava kava, Awa, YagonaAppearance yellow powderAnalyzed CharacteristicsSPECIFICATIONRESULTTEST METHODTOTAL AEROBIC PLATE COUNT

NMT 10,000 (cfu/g)

55

USP &lt;2021&gt;

TOTAL YEAST AND MOLD

NMT 1,000 (cfu/g)

10

USP &lt;2021&gt;

E. COLI

ABSENT (cfu/10g)

COMPLIES

USP &lt;2022&gt;

SALMONELLA SPECIES

ABSENT (cfu/10g)

COMPLIES

USP &lt;2022&gt;

STAPHYLOCOCCUS AUREUS

ABSENT (cfu/10g)

COMPLIES

USP &lt;2022&gt;

Heavy MetalsSPECIFICATION (PPM)RESULT PPM (ug/g)TEST METHODLEAD

NMT 2.0

0.013

ICP-MS\\USP&lt;730&gt;

ARSENIC

NMT 2.0

0.0062

ICP-MS\\USP&lt;730&gt;

CADMIUM

NMT 1.0

0.0112

ICP-MS\\USP&lt;730&gt;

MERCURY

NMT 1.0

0.0293

ICP-MS\\USP&lt;730&gt;

NMT= NO MORE THAN

PPM= PARTS PER MILLION

cfu/g = colony forming units per gram

Analysis performed by a third party laboratory.

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CHEMIST/DATE

*Russell Youngs 2/22/22*