

**Botany Evolution LLC**

2510 Kirby Circle NE

Palm Bay, FL 32945

321-802-4583

**Certificate Of Analysis****Sample Identification Information**Date of Analysis 3/23/2023Sample: S1862 BProduct Name KAVA EXTRACT 70%Batch # CJ230315KE70Country of Origin VANUATUCountry of Processing CHINAManufacture Date 12/01/21Best By Date 11/30/24**General Product Specifications**Product Species Piper MethysticumPart Used RootCommon Names Kava kava, Awa, YagonaAppearance brownish yellow liquid**Analyzed Characteristics****Specification****Result****Test Method**Standardization

20-90% Kavalactones

80.75%

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

245631

HPLC

K/DHM

1.4

Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			<b>23857.951</b>			
Methysticin	M	1	2.21	8557.246	13.36%	10.54%	<b>6</b>
Dihydromethysticin	DHM	2	3.38	6323.783	9.88%	11.48%	<b>5</b>
Kavain	K	3	1	27951.027	43.65%	15.71%	<b>4</b>
Dihydrokavain	DHK	4	3.08	11017.227	17.21%	26.08%	<b>2</b>
Desmethoxyyangonin	DMY	5	2.52	4883.714	7.63%	7.52%	<b>1</b>
Yangonin	Y	6	3.12	5297.791	8.27%	9.41%	<b>3</b>
<b>Kavalactones</b>			<b>Total:</b>	<b>64030.788</b>	<b>100.00%</b>	<b>80.75%</b>	<b>245631</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.

Chemist

*Mustel Youngs*

Date

*3/24/23*

SAMPLE S1862 B  
Vial 15

0.37374g/25mL

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA\_03\_23\_2023\_15MINSTDTESTMETHOD 2023-03-23 17-02-21\01->  
SEQUENCE C:\CHEM32\1\DATA\KAVA\_03\_23\_2023\_ ->

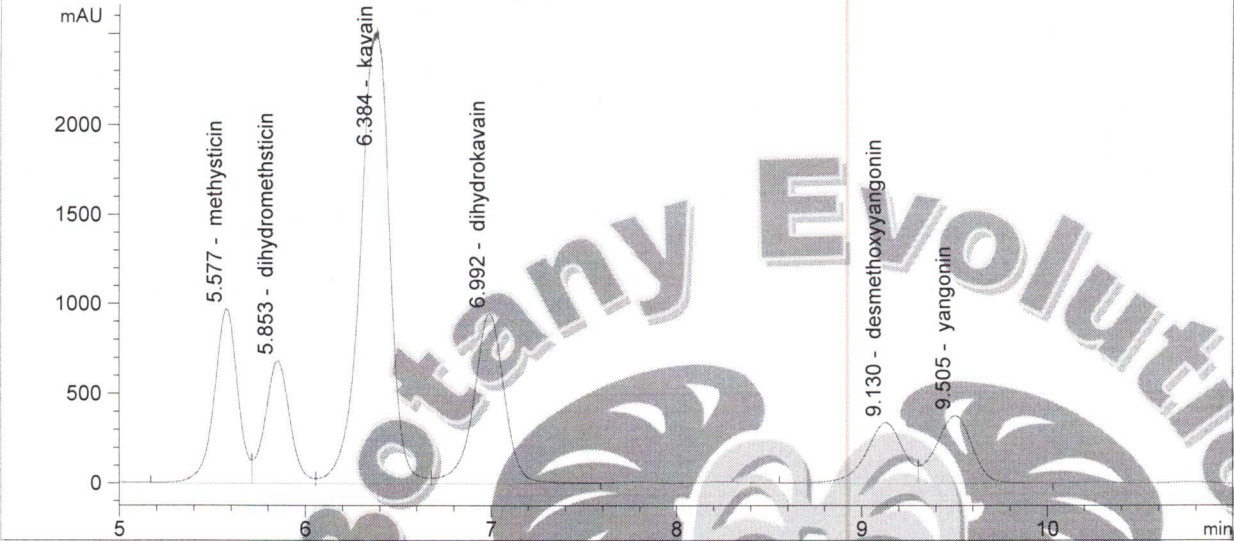
Injection date 3/23/2023

Injection time 9:53:40 PM

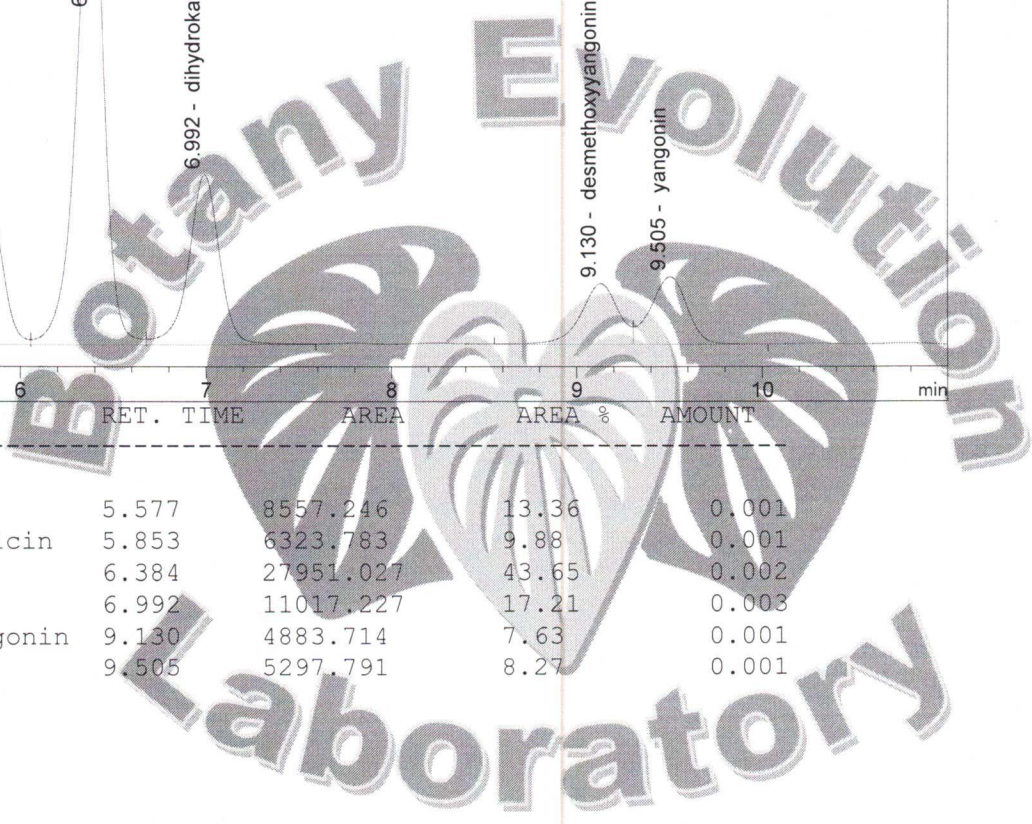
Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA\_03\_23\_202->

DAD1 C, Sig=246,10 Ref=500,60 (KAVA\_03\_23\_2023\_15MINSTDTESTMETHOD 2023-03-23 17-02-21\015-1501.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	methysticin	5.577	8557.246	13.36	0.001
2	dihydromethsticin	5.853	6323.783	9.88	0.001
3	kavain	6.384	27951.027	43.65	0.002
4	dihydrokavain	6.992	11017.227	17.21	0.003
5	desmethoxyyangonin	9.130	4883.714	7.63	0.001
6	yangonin	9.505	5297.791	8.27	0.001



3/24/23  
S

# Botany Evolution LLC

2510 Kirby Circle NE  
Palm Bay, FL 32945  
321-802-4583

## Microbiological and Heavy Metal Certificate Of Analysis

### Sample Identification Information

<u>Date of Analysis</u> 3/24/2023	<u>Country of Origin</u> VANUATU
<u>Sample:</u> S1862	<u>Country of Processing</u> CHINA
<u>Product Name</u> 70% LIQUID KAVA EXTRACT	<u>Manufacture Date</u> 12/01/21
<u>Lot#</u> CJ230315KE70	<u>Best By Date</u> 11/30/24

### General Product Specifications

<u>Product Species</u> Piper Methysticum	<u>Common Names</u> Kava kava, Awa, Yagona
<u>Part Used</u> Root	<u>Appearance</u> yellow powder

### Analyzed Characteristics

<u>SPECIFICATION</u>	<u>RESULT</u>	<u>TEST METHOD</u>
<u>TOTAL AEROBIC PLATE COUNT</u> NMT 10,000 (cfu/g)	310	USP <2021>
<u>TOTAL YEAST AND MOLD</u> NMT 1,000 (cfu/g)	60	USP <2021>
<u>E. COLI</u> ABSENT (cfu/10g)	COMPLIES	USP <2022>
<u>SALMONELLA SPECIES</u> ABSENT (cfu/10g)	COMPLIES	USP <2022>
<u>STAPHYLOCOCCUS AUREUS</u> ABSENT (cfu/10g)	COMPLIES	USP <2022>

### Heavy Metals

<u>SPECIFICATION (PPM)</u>	<u>RESULT PPM (ug/g)</u>	<u>TEST METHOD</u>
<u>LEAD</u> NMT 2.0	0.0087	ICP-MS\\USP<730>
<u>ARSENIC</u> NMT 2.0	0.0193	ICP-MS\\USP<730>
<u>CADMIUM</u> NMT 1.0	0.0007	ICP-MS\\USP<730>
<u>MERCURY</u> NMT 1.0	0.0007	ICP-MS\\USP<730>

NMT= NO MORE THAN PPM= PARTS PER MILLION cfu/g = colony forming units per gram

Analysis performed by a third party laboratory.

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/DATE

Mustel Youngs 3/24/23