Botany Evolution LLC

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

Certificate Of Analysis

Sample Identification Information

Date of Analysis 8/17/2023 Country of Origin

Sample: S1950 Country of Processing USA

Product Name BLACK LABEL Manufacture Date Apr-23

Lot# VPS2304-BL8 Best By Date Apr-26

General Product Specifications

Product Species Piper Methysticum Common Names Kava kava, Awa, Yagona

Part Used Root Appearance Yellow, Brown, beige powder

VANUATU

Test Method Specification Result **Analyzed Characteristics HPLC** 2-17% Kavalactones 9.01% **Standardization HPLC** Conform <u>Identification</u> Complies by HPLC **HPLC** PASS **Kavalactone Profile** Noble Sieve **Mesh Size** 60-30 60 Visual Color Beige to Yellow Pass Organoleptic Odor Pass Organoleptic Pass Taste **HPLC** 243156 Chemotype

K/DHM 4.7 Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	К			2365.254			
Methysticin	М	1	2.21	469.034	5.56%	0.58%	6
Dihydromethysticin	DHM	2	3.38	341.859	4.05%	0.62%	5
Kavain	К	3	1	5214.72	61.77%	2.92%	4
Dihydrokavain	DHK	4	3.08	1264.472	14.98%	2.98%	2
Desmethoxyyangonin	DMY	5	2.52	552.798	6.55%	0.85%	1
Yangonin	Υ	6	3.12	599.757	7.10%	1.06%	3
Kavalactones			Total:	8442.640	100.00%	9.01%	243156

^{*}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.

Chemist / With / Journey

Date \$/18/23

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.

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Kavalactone Analysis

SAMPLE S1950 Vial 11

0.75175g/50mL

wavelength 246 nm C:\CHEM32\1\DATA\KAVA_08_17_2023_15MINSTDTESTMETHOD 2023-08-17 15-53-57\01-> SEQUENCE C:\CHEM32\1\DATA\KAVA 08 17 2023 Injection date 8/17/2023 Injection time 7:40:31 PM Acq. operator KRISTL Method C:\CHEM32\1\DATA\KAVA 08 17 202-> DAD1 C, Sig=246,10 Ref=500,60 (KAVA_08_17_2023_15MINSTDTESTMETHOD 2023-08-17 15-53-57\011-1101.D) mAU _ 6.574 - kavain 350 300 9.303 - desmethoxyyangonin 180 - dihydrokavain 250 6.048 - dihydromethysticin 200 5.768 - methysticin 150 100 50 0 10 COMPOUND TIME RET. AREA AREA THUOMA 1 methysticin 5.768 469.034 5.56 0.000 dihydromethysticin 6.048 341.859 4.05 0.000 kavain 6.574 5214.720 61.77 0.000 dihydrokavain 7.180 1264.472 14.98 0.000 5 552.798 desmethoxyyangonin 9.303 6.55 0.000 7.10 0.000 yangonin 9.689 599.757

