## **Botany Evolution LLC**

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

## **Certificate Of Analysis**

Sample Identification Information

VANUATU **Country of Origin** Date of Analysis 8/8/2023

**Sample:** \$1940 **Country of Processing USA** 

Apr-23 **Product Name INSTANT PREMIUM Manufacture Date** 

> Apr-26 **Best By Date** Lot# VPS2304-PI7

**General Product Specifications** 

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

Yellow, Brown, beige powder Part Used Root **Appearance** 

**Test Method** Result **Analyzed Characteristics** Specification **HPLC** 9.12% 2-17% Kavalactones Standardization **HPLC** Conform Identification Complies by HPLC HPLC Noble PASS **Kavalactone Profile** Sieve 60-30 60 **Mesh Size** 

Visual Beige to Yellow Color **Pass** 

Organoleptic Odor Pass Organoleptic Pass Taste

**HPLC** 243516 Chemotype

Calculation 4.0 K/DHM

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|--------------------|------|-------------------------------|----------------------|--|---------|---------------------------|----------------------|
| Kavalactones       | Code | Peaks Ref.<br>(elution order) | Correction<br>Factor | Area *   | Area %  | Corrected<br>Kavalactones | Chemotype Identifier |
| Standard Kavain    | К    |                               |                      | 2350.67  |         |                           |                      |
| Methysticin        | М    | 1                             | 2.21                 | 404.566  | 4.91%   | 0.50%                     | 6                    |
| Dihydromethysticin | DHM  | 2                             | 3.38                 | 388.658  | 4.71%   | 0.70%                     | 5                    |
| Kavain             | К    | 3                             | 1                    | 4975.08  | 60.34%  | 2.79%                     | 4                    |
| Dihydrokavain      | DHK  | 4                             | 3.08                 | 1421.387   | 17.24%  | 3.36%                     | 2                    |
| Desmethoxyyangonin | DMY  | 5                             | 2.52                 | 449.844  | 5.46%   | 0.69%                     | 1                    |
| Yangonin           | Υ    | 6                             | 3.12                 | 605.911  | 7.35%   | 1.07%                     | 3                    |
| Kavalactones       |      |                               | Total:               | 8245.446   | 100.00% | 9.12%                     | 243516               |

<sup>\*</sup>See data in attachment HPLC1100 Agilent Certificate with Chromatogram graph.

use or misuse of this document. The appropriate use of this product is the sole responsibility of the user of the purchasing party. Date Chemist

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

## Kavalactone Analysis

SAMPLE S1940 Vial 15

0.75487g/50mL

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA 08 08 2023 15MINSTDTESTMETHOD 2023-08-08 15-43-27\01->

SEQUENCE C:\CHEM32\1\DATA\KAVA 08 08 2023

Injection date 8/8/2023 Injection time 8:34:48 PM

Acq. operator KRISTL

C:\CHEM32\1\DATA\KAVA 08 08 202-> Method DAD1 C, Sig=246,10 Ref=500,60 (KAVA\_08\_08\_2023\_15MINSTDTESTMETHOD 2023-08-08 15-43-27\015-1501.D) mAU 6.543 - kayain 350 300 dihydrokavain 250 6.019 - dihydromethysticin 200 5.743 - methysticin 150 100 50 0 10 COMPOUND RET. TIME AREA THUOMA

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|---|--------------------|-------|----------|--|----------------|
| 1 | methysticin        | 5.743 | 404.566  | 4.91   | 0.000          |
| 2 | dihydromethysticin | 6.019 | 388.658  | 4.71   | 0.000          |
| 3 | kavain             | 6.543 | 4975.080 | 60.34  | 0.000          |
| 4 | dihydrokavain      | 7.145 | 1421.387 | 17.24  | 0.000          |
| 5 | desmethoxyyangonin | 9.245 | 449.844  | 5.46   | 0.000          |
| 6 | yangonin           | 9.625 | 605.911  | 7.35   | 0.000          |