

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

Certificate Of Analysis

Sample Identification Information

| | |
|-----------------------------------|--------------------------------------|
| <u>Date of Analysis</u> 2/26/2020 | <u>Country of Origin</u> VANUATU |
| <u>Sample:</u> S0841 | <u>Country of Processing</u> VANUATU |
| <u>Product Name</u> CEREMONIAL | <u>Manufacture Date</u> 01/30/20 |
| <u>Lot#</u> VFE200130C | <u>Best By Date</u> 01/30/23 |

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, beige powder |

| <u>Analyzed Characteristics</u> | <u>Specification</u> | <u>Result</u> | <u>Test Method</u> |
|---------------------------------|----------------------|---------------|--------------------|
| <u>Standardization</u> | 2-17% Kavalactones | 9.18% | 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> | | 243156 | HPLC |
| <u>K/DHM</u> | | 3.62 | Calculation |

| Kavalactones | Code | Peaks Ref. (elution order) | Correction Factor | Area * | Area % | Corrected Kavalactones | Chemotype Identifier |
|---------------------|------|-------------------------------|----------------------|-----------------|----------------|---------------------------|----------------------|
| Standard Kavain | K | | | 2387.755 | | | |
| Methysticin | M | 1 | 2.21 | 570.305 | 6.80% | 0.69% | 6 |
| Dihydromethysticin | DHM | 2 | 3.38 | 416.311 | 4.96% | 0.74% | 5 |
| Kavain | K | 3 | 1 | 4867.876 | 58.04% | 2.69% | 4 |
| Dihydrokavain | DHK | 4 | 3.08 | 1310.871 | 15.63% | 3.05% | 2 |
| Desmethoxyyangonin | DMY | 5 | 2.52 | 554.968 | 6.62% | 0.84% | 1 |
| Yangonin | Y | 6 | 3.12 | 667.487 | 7.96% | 1.17% | 3 |
| Kavalactones | | | Total: | 8387.818 | 100.00% | 9.18% | 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.
 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 Youngs Date 2/28/20

SAMPLE S0841
Vial 21

0.75468g/50ml

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_2_26_20_15MINSTDTESTMETHOD 2020-02-26 16-16-14\021- ->

SEQUENCE C:\CHEM32\1\DATA\KAVA_2_26_20_ ->

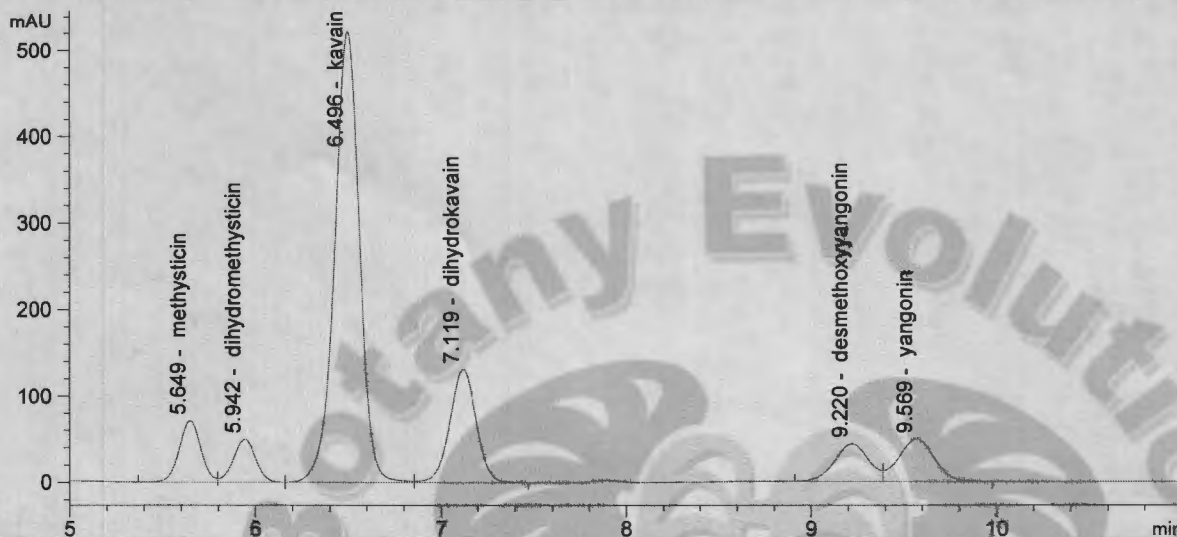
Injection date 2/26/2020

Injection time 10:44:21 PM

Acq. operator KRISTL

Method C:\CHEM32\1\DATA\KAVA_2_26_20_15MINSTDTESTMETH->

DAD1 C, Sig=246,10 Ref=500.60 (KAVA_2_26_20_15MINSTDTESTMETHOD 2020-02-26 16-16-14\021-2101.D)



| # | COMPOUND | RET. TIME | AREA | AREA % | AMOUNT |
|---|--------------------|-----------|----------|--------|--------|
| 1 | methysticin | 5.649 | 570.305 | 6.80 | 0.000 |
| 2 | dihydromethysticin | 5.942 | 416.311 | 4.96 | 0.000 |
| 3 | kavain | 6.496 | 4867.876 | 58.04 | 0.000 |
| 4 | dihydrokavain | 7.119 | 1310.871 | 15.63 | 0.000 |
| 5 | desmethoxyyangonin | 9.220 | 554.968 | 6.62 | 0.000 |
| 6 | yangonin | 9.569 | 667.487 | 7.96 | 0.000 |

2/27/20
K