

CERTIFICATE OF ANALYSIS

GENERAL INFORMATION

Report Date	3/12/2026	Country of Origin	Solomon Islands
Sample Number	S2355	Country of Processing	USA
Product Name	Chief Lateral Roots	Manufacture Date	Aug-25
Lot Number	SKH2602CL3	Best By Date	Aug-28

ITEM	SPECIFICATION	TEST RESULTS	METHOD
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PHYSICAL & CHEMICAL

Identification	Piper methysticum	Complies	HPLC
Appearance	Beige to Yellow Powder	Complies	Organoleptic
Kavalactone Standard	2-17 % Kavalactones	16.03%	HPLC
Kavalactone Profile	Noble	Pass	HPLC
Chemotype	If # 5 is in 1st or 2nd in Abundance	245361	HPLC
K/DHM	> 1.2 for Noble	1.7	Calculation

HEAVY METALS

		Results	
Arsenic (As)	NMT 1,000 (ppb)*	10 ppb	FDA EAM 4.7
Cadmium (Cd)	NMT 1,000 (ppb)*	1660 ppb	FDA EAM 4.7
Lead (Pb)	NMT 1,000 (ppb)*	109 ppb	FDA EAM 4.7
Mercury (Hg)	NMT 1,000 (ppb)*	10 ppb	FDA EAM 4.7

*Heavy Metals Action Limits Based on Maximum PDE at 5% Kavalactones. Results May Exceed 1,000 ppb action limit with higher kavalactone contents.

MICROBIOLOGICAL

		Results	
AEROBIC PLATE COUNT	NMT 10,000,000 cfu	12,000 cfu / 10 g	USP 2021
E. COLI	ABSENT (cfu/10g)	Negative cfu / 10 g	USP 2022
LISTERIA MONOCYTOGENES	ABSENT (cfu/10g)	Negative cfu / 10 g	USP 2022
PSEUDOMONAS AERUGINOSA	ABSENT (cfu/10g)	Negative cfu / 10 g	USP 2022
SALMONELLA	ABSENT (cfu/10g)	Negative cfu / 10 g	USP 2022
STAPHYLOCOCCUS AUREUS	ABSENT (cfu/10g)	12,000 cfu / 10 g	USP 2022
YEAST	NMT 100,000 cfu (Combined)	8,000 cfu / 10 g	
MOLD		30 cfu / 10 g	USP 2021
TOTAL YEAST & MOLD	NMT 100,000 cfu (Combined)	8,030 cfu / 10 g	

cfu/g = Colony Forming Units Per Gram NMT = No More Than PDE = Permitted Daily Exposure PPB = Parts Per Billion

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.

Kava Republic, 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.

Completed By: *Ray Salby* Title: Manager Date: 3/16/2026

Safety Assessment Based on Cadmium Levels Exceeding 1000 ppb

Date: 03/16/26

Sample: S2355 – Chief Lateral Roots

Kavalactones: 16.03% → 160.3 mg/g

USP accepted limit for Cadmium: 5 µg/day

Cadmium concentration: 1660 ppb (ppb = parts per billion)

$$1660 \text{ ppb} = 1660 \text{ µg/kg} = \mathbf{1.66 \text{ µg/g}}$$

Daily Kavalactone intake: 260 mg/day

Amount of kava required: 160.3 mg KL per g kava

$$260 \text{ mg} \div 160.3 \text{ mg/g} = \mathbf{1.62 \text{ g/day}}$$

USP Calculation (Summation Option)

$$\text{Result} = (C_i \times W_i) \times N$$

$$C_i \text{ (Cd concentration)} = 1.66 \text{ µg/g}$$

$$W_i \times N \text{ (daily intake)} = 1.62 \text{ g/day}$$

Daily Cadmium Exposure

$$1.62 \text{ g/day} \times 1.66 \text{ µg/g} = \mathbf{2.7 \text{ µg/day}}$$

$$2.7 \text{ µg/day} < 5 \text{ µg/day} \quad \mathbf{PASS}$$

Disclaimer:

These calculations are valid solely for the present sample (S2355, Chief Lateral Roots) containing **16.03% kavalactones** and assuming a **daily intake of 260 mg of kavalactones**. The results apply exclusively to this specific sample and consumption level. They are not applicable to other samples with different kavalactone concentrations or to products consumed at higher daily intake levels.

Chemist: *Mazin Amawi* Date: *3.16.26*

Kava Republic Inc.

2510 Kirby Circle NE

Palm Bay, FL 32905

321-802-4583

Certificate Of Analysis**Sample Identification Information**Date of Analysis 3/12/2026Sample: S2355Product Name Chief Lateral RootsLot# SKH2602CL3Country of Origin

Solomon Islands

Country of Processing

USA

Manufacture Date

Mar-26

Best By Date

Mar-29

General Product SpecificationsProduct Species Piper MethysticumPart Used RootCommon Names

Kava kava, Awa, Yagona

Appearance

Yellow, Brown, beige powder

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

2-17% Kavalactones

16.03%

HPLC

Identification

Complies by HPLC

Conform

HPLC

Kavalactone Profile

Noble

PASS

HPLC

Mesh Size

60-30

60

Sieve

Color

Beige to Yellow

Pass

Visual

Odor

Pass

Organoleptic

Taste

Pass

Organoleptic

Chemotype

245361

HPLC

K/DHM

TUDEI < 1.2 < NOBLE

1.7

Calculation

Kavalactones	Code	Peaks Ref. (elution order)	Correction Factor	Area *	Area %	Corrected Kavalactones	Chemotype Identifier
Standard Kavain	K			2600.441			
Methysticin	M	1	2.21	1540.413	10.56%	1.82%	6
Dihydromethysticin	DHM	2	3.38	1183.911	8.12%	2.14%	5
Kavain	K	3	1	6997.64	47.97%	3.75%	4
Dihydrokavain	DHK	4	3.48	2640.236	18.10%	4.92%	2
Desmethoxyyangonin	DMY	5	2.52	1008.454	6.91%	1.36%	1
Yangonin	Y	6	3.12	1215.845	8.34%	2.03%	3
Kavalactones			Total:	14586.499	100.00%	16.03%	245361

*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.

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Chemist *Harjeet Bermani*Date *3/13/26*

SAMPLE S2355
Vial 11

0.75216g/50mL

wavelength 246 nm

C:\CHEM32\1\DATA\KAVA_03_12_2026_15MINSTDTESTMETHOD 2026-03-12 16-11-38\01->

SEQUENCE C:\CHEM32\1\DATA\KAVA_03_12_2026_ ->

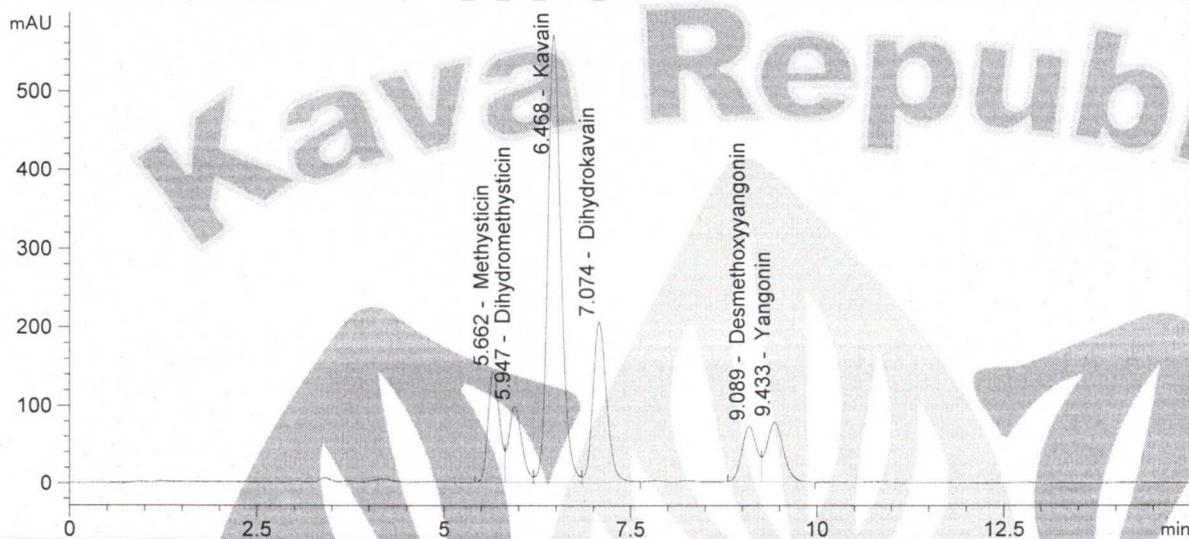
Injection date 3/13/2026

Injection time 3:15:40 AM

Acq. operator Marjan

Method C:\Chem32\1\METHODS\SLOWFLOW.M

DAD1 C, Sig=246,10 Ref=500,60 (KAVA_03_12_2026_15MINSTDTESTMETHOD 2026-03-12 16-11-38\011-1101.D)



#	COMPOUND	RET. TIME	AREA	AREA %	AMOUNT
1	Methysticin	5.662	1540.413	10.56	0.002
2	Dihydromethysticin	5.947	1183.911	8.12	0.002
3	Kavain	6.468	6997.640	47.97	0.001
4	Dihydrokavain	7.074	2640.236	18.10	0.004
5	Desmethoxyyangonin	9.089	1008.454	6.91	0.001
6	Yangonin	9.433	1215.845	8.34	0.002

