11455 Pearl St Northglenn, CO 80233 (303) 296-0264

MURRAY-BROWN LABORATORIES, INC.
Beyond the Raw Data

Certificate of Analysis for

Kava Spirit
1300 Hutton Dr #110
Carrollton, TX 75006
Phone: (760) 533-4941

Received: 6/26/2026 @ 27 °C
Report ID: 2606F23

Sample ID: 2606F23-001 KAVAHOL Kava Spirit

ACR.1a: AC by mass via AOAC 2015.13 (Petrifilm™) Analyzed 06/26/26

Aerobic Plate Count	< 10	CFU/g

EtOH.1: Alcohol via GC-FID Analyzed 06/30/26

Ethanol	< 0.0100	% ABV

Asp.1: Aspergillus via AOAC PTM 022103 (Gene-Up® PCR) Analyzed 06/30/26

Aspergillus flavus	Absent	CFU/1 g	Aspergillus fumigatus	Absent	CFU/1 g
Aspergillus niger	Absent	CFU/1 g	Aspergillus tereus	Absent	CFU/1 g

CCR.1a: CC by mass via AOAC OM 2018.13 (Petrifilm™) Analyzed 06/26/26

Total Coliform Bacteria	< 10	CFU/g

ECR.1a: EC by mass via AOAC OM 2018.13 (Petrifilm™) Analyzed 06/26/26

Escherichia coli	< 10	CFU/g

EtO.1: Residual Solvents by Headspace GC/MS (VF-624MS) Analyzed 07/01/26

Ethylene Oxide	< 20.0	ppm

Kava.1: Flavokawains by HPLC-UV Analyzed 06/30/26

Flavokawain A	0.0881	mg/mL	Flavokawain B	0.155	mg/mL
Flavokawain C	0.0111	mg/mL	Total Flavokawains	0.254	mg/mL

ICPMS.1: Metals via AOAC 2015.01 Modified (ICP/MS) Analyzed 07/02/26

Arsenic (As)	< 0.0200	mg/kg (ppm)	Cadmium (Cd)	< 0.0100	mg/kg (ppm)
Lead (Pb)	< 0.00500	mg/kg (ppm)	Mercury (Hg)	< 0.00500	mg/kg (ppm)

Kava.1: USP Monograph for Piper methysticum Root - Content of Kavalactones by HPLC-UV Analyzed 06/30/26

Desmethoxyyangonin	0.730	mg/mL	Dihydrokawain	1.70	mg/mL
Dihydromethysticin	0.639	mg/mL	Kawain	2.32	mg/mL
Methysticin	0.705	mg/mL	Total Kavalactones	7.03	mg/mL
Yangonin	0.934	mg/mL			

LMono.2: Listeria monocytogenes via AOAC 121804 (Gene-Up® PCR) Analyzed 06/26/26

Listeria monocytogenes	Negative	/25 g

List.2: Listeria spp. via AOAC 121803 (Gene-Up® PCR) Analyzed 06/26/26

Listeria spp.	Negative	/25 g

ICPMS.1Metals via AOAC 2015.01 Modified (ICP/MS) Analyzed 07/02/26

Iron (Fe)	2.79	mg/kg (ppm)	Nickel (Ni)	0.0599	mg/kg (ppm)

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Original

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Myco.1: Mycotoxins by LC-MS/MS Analyzed 07/02/26

Aflatoxin B1	< 10.0	µg/kg (ppb)	Aflatoxin B2	< 10.0	µg/kg (ppb)
Aflatoxin G1	< 10.0	µg/kg (ppb)	Aflatoxin G2	< 10.0	µg/kg (ppb)
Ochratoxin A	< 20.0	µg/kg (ppb)			

Pest.1: Pesticides by LC/MS/MS (Agilent App - Determination of Pesticides and Mycotoxins) Analyzed 07/02/26

Abamectin	< 50.0	µg/kg (ppb)	Acephate	< 25.0	µg/kg (ppb)
Acequinocyl	< 10.0	µg/kg (ppb)	Acetamiprid	< 10.0	µg/kg (ppb)
Aldicarb	< 10.0	µg/kg (ppb)	Azoxystrobin	< 10.0	µg/kg (ppb)
Bifenazate	< 50.0	µg/kg (ppb)	Bifenthrin	< 10.0	µg/kg (ppb)
Boscalid	< 50.0	µg/kg (ppb)	Carbaryl	< 25.0	µg/kg (ppb)
Carbofuran	< 25.0	µg/kg (ppb)	Chlorantraniliprole	< 25.0	µg/kg (ppb)
Chlorfenapyr	< 100	µg/kg (ppb)	Chlorpyrifos	< 10.0	µg/kg (ppb)
Clofentezine	< 10.0	µg/kg (ppb)	Coumaphos	< 10.0	µg/kg (ppb)
Cyfluthrin	< 50.0	µg/kg (ppb)	Cypermethrin	< 50.0	µg/kg (ppb)
Daminozide	< 25.0	µg/kg (ppb)	Diazinon	< 10.0	µg/kg (ppb)
Dichlorvos	< 50.0	µg/kg (ppb)	Dimethoate	< 25.0	µg/kg (ppb)
Dimethomorph	< 25.0	µg/kg (ppb)	Ethoprophos	< 25.0	µg/kg (ppb)
Etofenprox	< 10.0	µg/kg (ppb)	Etoxazole	< 25.0	µg/kg (ppb)
Fenhexamid	< 50.0	µg/kg (ppb)	Fenoxycarb	< 10.0	µg/kg (ppb)
Fenpyroximate	< 25.0	µg/kg (ppb)	Fipronil	< 10.0	µg/kg (ppb)
Flonicamid	< 25.0	µg/kg (ppb)	Fludioxonil	< 25.0	µg/kg (ppb)
Hexythiazox	< 10.0	µg/kg (ppb)	Imazalil	< 50.0	µg/kg (ppb)
Imidacloprid	< 10.0	µg/kg (ppb)	Kresoxim-methyl	< 10.0	µg/kg (ppb)
Malathion	< 100	µg/kg (ppb)	Metalaxyl	< 25.0	µg/kg (ppb)
Methiocarb	< 50.0	µg/kg (ppb)	Methomyl	< 25.0	µg/kg (ppb)
Mevinphos	< 50.0	µg/kg (ppb)	Myclobutanil	< 50.0	µg/kg (ppb)
Naled	< 50.0	µg/kg (ppb)	Oxamyl	< 10.0	µg/kg (ppb)
Paclobutrazol	< 25.0	µg/kg (ppb)	Permethrin	< 10.0	µg/kg (ppb)
Phosmet	< 10.0	µg/kg (ppb)	Piperonyl Butoxide	< 10.0	µg/kg (ppb)
Prallethrin	< 25.0	µg/kg (ppb)	Propiconazol	< 25.0	µg/kg (ppb)
Propoxur	< 25.0	µg/kg (ppb)	Pyrethrins	< 50.0	µg/kg (ppb)
Pyridaben	< 10.0	µg/kg (ppb)	Spinetoram	< 25.0	µg/kg (ppb)
Spinosad A	< 10.0	µg/kg (ppb)	Spinosad D	< 50.0	µg/kg (ppb)
Spiromesifen	< 25.0	µg/kg (ppb)	Spirotetramat	< 25.0	µg/kg (ppb)
Spiroxamine	< 25.0	µg/kg (ppb)	Tebuconazole	< 25.0	µg/kg (ppb)
Thiacloprid	< 25.0	µg/kg (ppb)	Thiamethoxam	< 25.0	µg/kg (ppb)
Trifloxystrobin	< 10.0	µg/kg (ppb)			

PSU.1a: Pseudomonas by mass via MB-LABS-SOP-008 (PIA) Analyzed 06/26/26

Pseudomonas spp.	< 10	CFU/g

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ResSolv.2: Residual Solvents by Headspace GC/MS Analyzed 07/06/26

(+/-)-2-Butanol	< 10.0	mg/kg (ppm)	1,1-Dichloroethene	< 5.00	mg/kg (ppm)
1,2-Dichloroethane	< 1.00	mg/kg (ppm)	1,2-Dimethoxyethane	< 10.0	mg/kg (ppm)
1,4-Dioxane	< 25.0	mg/kg (ppm)	1-Butanol	< 50.0	mg/kg (ppm)
1-Pentanol	< 100	mg/kg (ppm)	1-Propanol	< 100	mg/kg (ppm)
2,2-Dimethylbutane	< 25.0	mg/kg (ppm)	2,3-Dimethylbutane	< 25.0	mg/kg (ppm)
2-Ethoxyethanol	< 25.0	mg/kg (ppm)	2-Methoxyethanol	< 50.0	mg/kg (ppm)
2-Methyl-1-propanol	< 100	mg/kg (ppm)	2-Methylbutane (Isopentane)	< 75.0	mg/kg (ppm)
2-Methylpentane	< 25.0	mg/kg (ppm)	2-Propanol	< 50.0	mg/kg (ppm)
3-Methyl-1-Butanol	< 100	mg/kg (ppm)	3-Methylpentane	< 25.0	mg/kg (ppm)
Acetone	< 50.0	mg/kg (ppm)	Acetonitrile	< 50.0	mg/kg (ppm)
Anisole	< 50.0	mg/kg (ppm)	Benzene	< 0.500	mg/kg (ppm)
Butyl Acetate	< 50.0	mg/kg (ppm)	Chloroform	< 1.00	mg/kg (ppm)
Cumene	< 70.0	mg/kg (ppm)	Cyclohexane	< 50.0	mg/kg (ppm)
Diethyl ether	< 50.0	mg/kg (ppm)	Ethanol	< 50.0	mg/kg (ppm)
Ethyl Acetate	< 50.0	mg/kg (ppm)	Ethyl benzene	< 25.0	mg/kg (ppm)
Ethyl Ether	< 100	mg/kg (ppm)	Ethylene Glycol	< 100	mg/kg (ppm)
Ethylene Oxide	< 1.00	mg/kg (ppm)	Formamide	< 50.0	mg/kg (ppm)
Heptane	< 50.0	mg/kg (ppm)	Hexane	< 2.00	mg/kg (ppm)
Isobutane	< 100	mg/kg (ppm)	Isobutyl acetate	< 50.0	mg/kg (ppm)
Isopropyl acetate	< 10.0	mg/kg (ppm)	Methanol	< 50.0	mg/kg (ppm)
Methyl Acetate	< 100	mg/kg (ppm)	Methylbutyl Ketone	< 25.0	mg/kg (ppm)
Methylene Chloride	< 1.00	mg/kg (ppm)	Methylethyl Ketone	< 50.0	mg/kg (ppm)
Methylisobutyl Ketone	< 100	mg/kg (ppm)	N,N-Dimethylacetamide	< 100	mg/kg (ppm)
N,N-Dimethylformamide	< 10.0	mg/kg (ppm)	n-Butane	< 100	mg/kg (ppm)
Neopentane	< 100	mg/kg (ppm)	Nitromethane	< 25.0	mg/kg (ppm)
N-Methylpyrrolidone	< 50.0	mg/kg (ppm)	Pentane	< 50.0	mg/kg (ppm)
Propane	< 100	mg/kg (ppm)	Propyl Acetate	< 50.0	mg/kg (ppm)
Pyridine	< 10.0	mg/kg (ppm)	Sulfolane	< 100	mg/kg (ppm)
Tert-Butylmethyl Ether	< 50.0	mg/kg (ppm)	Tetrahydrofuran	< 10.0	mg/kg (ppm)
Tetralin	< 10.0	mg/kg (ppm)	Toluene	< 1.00	mg/kg (ppm)
Trichloroethene	< 1.00	mg/kg (ppm)	Xylenes (p-, m-, o-)	< 40.0	mg/kg (ppm)

Salm.1: Salmonella via AOAC 081201, 2013.02 (BAX® PCR) Analyzed 06/26/26

Salmonella spp.	Negative	/25 g

STA.1a: S. aureus by mass via AOAC 2003.07, 2003.08, 2003.11 (Petrifilm™) Analyzed 06/26/26

Staphylococcus aureus	< 10	CFU/g

STEC.1: E. coli (O157:H7, O26, O45, O103, O111, O121, O145) via AOAC 091301 (BAX® PCR, STEC Screen) Analyzed 06/26/26

Shiga toxin-producing E. coli (stx-eae)	Negative	/25 g

YM.1a: YM by mass via AOAC RI 121301 (Petrifilm™) Analyzed 06/26/26

Yeast and Mold	< 10	CFU/g

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Reported By Jake S Hedges, Operations Manager, 7/7/2026

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