



Certificate of Analysis

R&D

Client Information:

Sanctuary(St) Botanicals

1218 Pine Harbor Point Cir
Orlando, Florida 32806

Order # SAN251006-010001

Order Date: 2025-10-06

Sample # AAHD143

Batch # 042
Batch Date: 2025-10-06
Extracted From: Kratom LeavesCultivation Date: 0000-00-00
Production Facility: Sanctuary Botanicals
Production Date: 2025-10-06Sampling Date: 2025-10-07
Lab Batch Date: 2025-10-07
Completion Date: 2025-10-13Serving Number: 4.00000
Density: 1.000 g/ml
Volume: 176 mlKratom
Tested ▲Heavy Metals
TestedMycotoxins
PassedPesticides
PassedResidual Solvents
PassedPathogenic
PassedMicrobiology Petrifilm
Passed

Kratom Alkaloids

Specimen Weight: 165000.000 mg

SOP 13.062 Kratom Alkaloids
(LCMS)

Tested ▲

Total Detectable Alkaloids

Total Kratom Alkaloids

0.238%

418mg

Pieces For Panel: 4

Analyte	LOQ (%)	Action Level (mg/g)	Result (µg/ml)	(%)
Mitragynine	0.0146	100	1780	0.178
Paynantheine	0.0146	100	225	0.0225
Speciogynine	0.0146	100	195	0.0195
Speciociliatine	0.0146	100	175	0.0175
7-Hydroxy Mitragynine	0.0146	0.4	<LOQ	<LOQ
Corynoxine B	0.0146	100	<LOQ	<LOQ
Isorhynchophylline	0.0146	100	<LOQ	<LOQ
Mitraphylline	0.0146	100	<LOQ	<LOQ

Prep. By: 1260 Date: 2025-10-08 17:07:39 Analyzed By: 1260 Date: 2025-10-08 11:59:43

Reviewed By: 1010 Date: 2025-10-10 17:48:11 Lab Batch #: AAHD143-412 Date: 2025-10-10 17:48:11



Kratom Heavy Metals

Specimen Weight: 250.100 mg

SOP13.051 (ICP-3;
icp-1)

Tested

Dilution Factor: 199.920

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (µg/ml)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (µg/ml)
Arsenic (As)	.019	100	1500	<LOQ	Manganese (Mn)	.04694	1000	900000	<LOQ
Cadmium (Cd)	.004	100	300	<LOQ	Mercury (Hg)	.010	100	500	<LOQ
Lead (Pb)	.044	100	1000	<LOQ	Nickel (Ni)	.149	250	200000	<LOQ

Prep. By: 1204 Date: 2025-10-09 07:29:12 Analyzed By: 1204 Date: 2025-10-09 07:29:12

Reviewed By: 1256 Date: 2025-10-10 19:07:14 Lab Batch #: AAHD143-413 Date: 2025-10-10 19:07:14

Aixia Sun Lab Director/Principal Scientist
D.H.Sc., M.Sc., B.Sc., MT (AAB)

Definitions and Abbreviations used in this report: (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor, (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram, (µg/g) = Microgram per Gram, (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = Water Activity, (mg/Kg) = Milligram per Kilogram. ACS uses simple acceptance criteria. Passed – Analyte/microbe is not detected or is at the level below the action limit per FL rule 64ER20-39, 5K-4.036, 5K-4.034. Failed – Analyte/microbe is at the level that equal or above the action limit per FL rule 64ER20-39, 5K-4.036, 5K-4.034. The results apply to the sample as received.

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Production Facility: Sanctuary Botanicals
Production Date: 2025-10-06

Order # SAN251006-010001
Order Date: 2025-10-06
Sample # AAHD143

Sampling Date: 2025-10-07
Lab Batch Date: 2025-10-07
Completion Date: 2025-10-13

Serving Number: 4.00000
Density: 1.000 g/ml
Volume: 176 ml



Residual Solvents – FL

Specimen Weight: 17.000 mg

Passed
SOP13.039 (GCMS-HS)

Dilution Factor: 1.000

Analyte	LOD (ppm)	LOQ (ppm)	Action Level (ppm)	Result (ppm)	Analyte	LOD (ppm)	LOQ (ppm)	Action Level (ppm)	Result (ppm)
1,1-Dichloroethene	0.009	0.132	8	<LOQ	Heptane	0.001	8	5000	<LOQ
1,2-Dichloroethane	0.000	0.032	2	<LOQ	Hexane	0.068	0.8	250	<LOQ
Acetone	0.015	12	750	<LOQ	Isopropyl alcohol	0.005	8	500	<LOQ
Acetonitrile	0.060	0.96	60	<LOQ	Methanol	0.001	4	250	<LOQ
Benzene	0.000	0.016	1	<LOQ	Methylene chloride	0.003	2	125	<LOQ
Butanes	0.417	13.32	5000	<LOQ	Pentane	0.037	12	750	<LOQ
Chloroform	0.000	0.032	2	<LOQ	Propane	0.031	26.668	5000	<LOQ
Ethanol	0.002	16	NA	<LOQ	Toluene	0.001	2.4	150	<LOQ
Ethyl Acetate	0.001	6.4	400	<LOQ	Total Xylenes	0.000	7.2	150	<LOQ
Ethyl Ether	0.005	8	500	<LOQ	Trichloroethylene	0.001	0.4	25	<LOQ
Ethylene Oxide	0.004	0.32	5	<LOQ					

Prep. By: 1208

Date: 2025-10-08 11:11:25

Analyzed By: 1208

Date: 2025-10-08 11:11:25

Reviewed By: 1222

Date: 2025-10-09 13:09:49

Lab Batch #: AAHD143-55

Date: 2025-10-09 13:09:49



Mycotoxins

Specimen Weight: 590.100 mg

Passed
SOP13.007 (LCMS/GCMS)

Dilution Factor: 2.540

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Aflatoxin B1	3.0400E-1	6	20	<LOQ	Aflatoxin G2	2.7100E-1	6	20	<LOQ
Aflatoxin B2	7.7000E-2	6	20	<LOQ	Ochratoxin A	7.5400E-1	3.8	20	<LOQ
Aflatoxin G1	3.0400E-1	6	20	<LOQ					

Prep. By: 1225

Date: 2025-10-08 18:26:23

Analyzed By: 1225

Date: 2025-10-08 18:26:23

Reviewed By: 1183

Date: 2025-10-10 18:18:58

Lab Batch #: AAHD143-165

Date: 2025-10-10 18:18:58



Pathogenic SE (Microarray)

Specimen Weight: 1044.300 mg

Passed
SOP13.019 (Micro Array)

Dilution Factor: 1.000

Analyte	Action Level (cfu/g)	Result (cfu/g)	Analyte	Action Level (cfu/g)	Result (cfu/g)
E. Coli	1	Absence in 1g	Salmonella	1	Absence in 1g

Prep. By: 1179

Date: 2025-10-09 09:52:35

Analyzed By: 1179

Date: 2025-10-09 09:52:35

Reviewed By: 1161

Date: 2025-10-10 11:12:35

Lab Batch #: AAHD143-445

Date: 2025-10-10 11:12:35

Aixia Sun

Aixia Sun Lab Director/Principal Scientist
D.H.Sc., M.Sc., B.Sc., MT (AAB)

Definitions are found on page 1

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Production Facility: Sanctuary Botanicals
Production Date: 2025-10-06

Order # SAN251006-010001
Order Date: 2025-10-06
Sample # AAHD143

Sampling Date: 2025-10-07
Lab Batch Date: 2025-10-07
Completion Date: 2025-10-13

Serving Number: 4.00000
Density: 1.000 g/ml
Volume: 176 ml



Microbiology ACEC (Petrifilm)

Specimen Weight: 1002.900 mg

Passed
SOP13.003 (Petrifilm)

Dilution Factor: 1.000

Analyte	LOQ (cfu/g)	Action Level (cfu/g)	Result (cfu/g)	Analyte	LOQ (cfu/g)	Action Level (cfu/g)	Result (cfu/g)
Aerobic Bacteria	20	10000	<20	Yeast/Mold	20	1000	10.0
Coliform	20	100	<10				
Prep. By: 1179	Date: 2025-10-08 16:34:07			Analyzed By: 1179	Date: 2025-10-08 16:34:07		
Reviewed By: 1161	Date: 2025-10-10 17:03:16			Lab Batch #: AAHD143-443	Date: 2025-10-10 17:03:16		

Aixia Sun
Aixia Sun Lab Director/Principal Scientist
D.H.Sc., M.Sc., B.Sc., MT (AAB)

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Cultivation Date: 0000-00-00
Production Facility: Sanctuary Botanicals
Production Date: 2025-10-06

Order # SAN251006-010001
Order Date: 2025-10-06
Sample # AAHD143

Sampling Date: 2025-10-07
Lab Batch Date: 2025-10-07
Completion Date: 2025-10-13

Serving Number: 4.00000
Density: 1.000 g/ml
Volume: 176 ml



Pesticides

Specimen Weight: 590.100 mg

Passed
SOP13.007 (LCMS/GCMS)

Dilution Factor: 2.540

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Abamectin	2.8800E-1	28.23	300	<LOQ	Fludioxonil	1.7400E+0	48	3000	<LOQ
Acephate	2.3000E-2	30	3000	<LOQ	Hexythiazox	4.9000E-2	30	2000	<LOQ
Acequinocyl	9.5640E+0	48	2000	<LOQ	Imazalil	2.4800E-1	30	100	<LOQ
Acetamiprid	5.2000E-2	30	3000	<LOQ	Imidacloprid	9.4000E-2	30	3000	<LOQ
Aldicarb	2.6000E-2	30	100	<LOQ	Kresoxim Methyl	4.2000E-2	30	1000	<LOQ
Azoxystrobin	8.1000E-2	10	3000	<LOQ	Malathion	8.2000E-2	30	2000	<LOQ
Bifenazate	1.4150E+0	30	3000	<LOQ	Metaxyl	8.1000E-2	10	3000	<LOQ
Bifenthrin	4.3000E-2	30	500	<LOQ	Methiocarb	3.2000E-2	30	100	<LOQ
Boscalid	5.5000E-2	10	3000	<LOQ	Methomyl	2.2000E-2	30	100	<LOQ
Captan	6.1200E+0	30	3000	<LOQ	methyl-Parathion	1.7100E+0	10	100	<LOQ
Carbaryl	2.2000E-2	10	500	<LOQ	Mevinphos	2.1500E+0	10	100	<LOQ
Carbofuran	3.4000E-2	10	100	<LOQ	Myclobutanil	1.0290E+0	30	3000	<LOQ
Chlorantraniliprole	3.3000E-2	10	3000	<LOQ	Naled	9.5000E-2	30	500	<LOQ
Chlordane	1.0000E+1	10	100	<LOQ	Oxamyl	2.5000E-2	30	500	<LOQ
Chlorfenapyr	3.4000E-2	30	100	<LOQ	Paclobutrazol	6.5000E-2	30	100	<LOQ
Chlormequat Chloride	1.0800E-1	10	3000	<LOQ	Pentachloronitrobenzene	1.3200E+0	10	200	<LOQ
Chlorpyrifos	3.5000E-2	30	100	<LOQ	Permethrin	3.4300E-1	30	1000	<LOQ
Clofentezine	1.1900E-1	30	500	<LOQ	Phosmet	8.2000E-2	30	200	<LOQ
Coumaphos	3.7700E+0	48	100	<LOQ	Piperonylbutoxide	2.9000E-2	30	3000	<LOQ
Cyfluthrin	3.1100E+0	30	1000	<LOQ	Prallethrin	7.9800E-1	30	400	<LOQ
Cypermethrin	1.4490E+0	30	1000	<LOQ	Propiconazole	7.0000E-2	30	1000	<LOQ
Daminozide	8.8500E-1	30	1000	<LOQ	Propoxur	4.6000E-2	30	100	<LOQ
Diazinon	4.4000E-2	30	200	<LOQ	Pyrethrins	2.3593E+1	30	1000	<LOQ
Dichlorvos	2.1820E+0	30	100	<LOQ	Pyridaben	3.2000E-2	30	3000	<LOQ
Dimethoate	2.1000E-2	30	100	<LOQ	Spinetoram	8.0000E-2	10	3000	<LOQ
Dimethomorph	5.8300E+0	48	3000	<LOQ	Spinosad	8.8000E-2	30	3000	<LOQ
Ethoprophos	3.6000E-1	30	100	<LOQ	Spiromesifen	2.6100E-1	30	3000	<LOQ
Etofenprox	1.1600E-1	30	100	<LOQ	Spirotetramat	8.9000E-2	30	3000	<LOQ
Etiozole	9.5000E-2	30	1500	<LOQ	Spiroxamine	1.3100E-1	30	100	<LOQ
Fenhexamid	5.1000E-1	10	3000	<LOQ	Tebuconazole	6.7000E-2	30	1000	<LOQ
Fenoxycarb	1.0700E-1	30	100	<LOQ	Thiacloprid	6.4000E-2	30	100	<LOQ
Fenpyroximate	1.3800E-1	30	2000	<LOQ	Thiamethoxam	5.0000E-2	30	1000	<LOQ
Fipronil	1.0700E-1	30	100	<LOQ	Trifloxystrobin	3.7000E-2	30	3000	<LOQ
Flonicamid	5.1700E-1	30	2000	<LOQ					

Prep. By: 1225 Date: 2025-10-08 18:26:23

Analyzed By: 1225

Date: 2025-10-08 18:26:23

Reviewed By: 1183

Date: 2025-10-10 18:18:58

Lab Batch #: AAHD143-202

Date: 2025-10-10 18:18:58

Aixia Sun
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Serving Number: 4.00000
Density: 1.000 g/ml
Volume: 176 ml

7-Hydroxy Mitragynine at Dry Weight

Specimen Weight: 165000.000 mg

Tested ▲
SOP 13.062 Kratom Alkaloids (LCMS)

Dilution Factor: 4000.000

Analyte	LOQ (%)	Action Level (ppm)	Result (ppm)	(%)
7-Hydroxy Mitragynine	0.0146	0.4	<LOQ	<LOQ
Prep. By: 1260	Date: 2025-10-08 17:07:39	Analyzed By: 1260	Date: 2025-10-08 11:59:43	
Reviewed By: 1010	Date: 2025-10-10 17:48:11	Lab Batch #: AAHD143-412	Date: 2025-10-10 17:48:11	

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