Certificate of Analysis

Sample Name: 65% SA 1g Kats Tablet
Client: Kats Botanicals
Sample Code: DTS-251029-004
Matrix Name: Pill - Tablet
Type / Result: Quality Assurance - Pass

cambium analytica



Received Date: Fri, Oct 31, 2025
Published Date: Fri, Nov 7, 2025
Batch/Lot Code: 25-06/331/X/65/SA/B
Batch Size: N/A
Sample Size: 1U
Average Unit Weight: 1.04993g

RESULT SUMMARY

Mitragynine	72.54 mg /serv
Total Major Alkaloids	77.92 mg /serv

ALKU ✓
Kratom Alkaloids
High Level

ALKL ✓
Kratom Alkaloids
Low Level

PGUSP ✓
Pesticides
USP <561>m

PLUSP ✓
Pesticides
USP <561>m

TAMC ✓
Total Aerobic Bacteria
Plate

HVMET ✓
Heavy Metals
Big 4

TYMFD ✓
Total Yeast & Mold
Plate

SOLHM ✓
Residual Solvents
National Panel

Approvals

RESULTS REVIEWED BY:

Leslie Varela
Laboratory Director
Cambium Analytica
Friday, Nov 7, 2025

RESULTS CERTIFIED BY:

Douglas Smith
VP - Scientific Operations
Cambium Analytica
Friday, Nov 7, 2025

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Lab Information

Address: 1230 Woodmere Ave, Traverse City, MI 49686 **Phone:** 231.252.3669 **Accreditation:** ISO/IEC 17025:2017 – #108157

ALKU

Kratom Alkaloids - High Level

LAB-TM-052 - Determination of Kratom Alkaloid Content by UPLC-DAD
ALKU-DTS-251029-004-01 - TUE, NOV 4, 2025

Analyte	Value	Value (mg/g)	Per Serving	Per Package	Action Limit	LOD	LOQ	Status
Mitragynine	6.9093 %	69.0934 mg/g	72.54 mg	72.54 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Paynantheine	0.2938 %	2.9377 mg/g	3.08 mg	3.08 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Speciogynine	0.1566 %	1.5657 mg/g	1.64 mg	1.64 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Speciociliatine	0.0620 %	0.6201 mg/g	0.65 mg	0.65 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Total Major Alkaloids*	7.4217 %	74.2168 mg/g	77.92 mg	77.92 mg	N/A	N/A	N/A	N/A

Total Major Alkaloids is calculated as the sum of Mitragynine, Paynantheine, Speciociliatine and Speciogynine.

ALKL

Kratom Alkaloids - Low Level

LAB-TM-047 - Determination of Kratom Alkaloid Content by LC-TQ
ALKL-DTS-251029-004-01 - TUE, NOV 4, 2025

ISO 17025 ACCR 108157

Analyte	Value	Value (mg/g)	Per Serving	Per Package	Action Limit	LOD	LOQ	Status
7-Hydroxymitragynine	0.00275 %	0.02755 mg/g	0.03 mg	0.03 mg	N/A	0.002 ug/g	0.011 ug/g	N/A
Mitraphylline	0.00000 %	0.00004 mg/g	0.00 mg	0.00 mg	N/A	0.004 ug/g	0.019 ug/g	N/A
Total Minor Alkaloids*	0.00276 %	0.02759 mg/g	0.03 mg	0.03 mg	N/A	N/A	N/A	N/A

Total Minor Alkaloids is calculated as the sum of 7-Hydroxymitragynine and Mitraphylline.

PGUSP

Pesticides - USP <561>m - GC/TQ

LAB-TM-039 - USP 561 Pesticides Analysis in Articles of Botanical Origin by GC/TQ
PGUSP-DTS-251029-004-01 - WED, NOV 5, 2025

Analyte	Value	Action Limit	LOD	LOQ	Status
Aldrin + Dieldrin	ND	0.05 ug/g	0.1 ng/g	0.2 ng/g	PASS
Bromophos Ethyl	ND	0.05 ug/g	0.1 ng/g	0.2 ng/g	PASS
Bromophos Methyl	ND	0.05 ug/g	0.1 ng/g	0.2 ng/g	PASS
Bromopropylate	ND	3 ug/g	6 ng/g	12 ng/g	PASS
Chlordane (Sum of -Cis, -Trans, Oxychlordane)	ND	0.05 ug/g	0.1 ng/g	0.2 ng/g	PASS
Chlorpyrifos Methyl	ND	N/A	0.2 ng/g	0.4 ng/g	N/A
Chlorthal-Dimethyl	ND	0.01 ug/g	0.02 ng/g	0.04 ng/g	PASS
DDT (Sum of O,P-DDE, P,P-DDE, O,P-DDT, P,P-DDT, O,P-TDE, and P,P-TDE)	ND	1 ug/g	2 ng/g	4 ng/g	PASS
Dicofol	ND	0.5 ug/g	1 ng/g	2 ng/g	PASS
Endosulfan (Sum of Isomers and Sulphate)	ND	3 ug/g	6 ng/g	12 ng/g	PASS
Endrin	ND	0.05 ug/g	0.1 ng/g	0.2 ng/g	PASS
Fenchlorophos (Sum of Fenchlorophos and Fenchlorophos-Oxon)	ND	0.1 ug/g	0.2 ng/g	0.4 ng/g	PASS
Fenitrothion	ND	0.5 ug/g	1 ng/g	2 ng/g	PASS
Fenvalerate	ND	1.5 ug/g	3 ng/g	6 ng/g	PASS
Fluvalinate-Tau	ND	0.05 ug/g	0.1 ng/g	0.2 ng/g	PASS
Heptachlor (Sum of Heptachlor, Cis-Heptachlorepoxide, and Trans-Heptachlorepoxide)	ND	0.05 ug/g	0.1 ng/g	0.2 ng/g	PASS
Hexachlorobenzene	ND	0.1 ug/g	0.2 ng/g	0.4 ng/g	PASS
Hexachlorocyclohexane (Sum of Isomers Alpha-, Beta-, Delta-, and Epsilon-)	ND	0.3 ug/g	0.6 ng/g	1.2 ng/g	PASS
Lindane (Gamma-Hexachlorocyclohexane)	ND	0.6 ug/g	1.2 ng/g	2.4 ng/g	PASS
Methacriphos	ND	0.05 ug/g	0.1 ng/g	0.2 ng/g	PASS
Methoxychlor	ND	0.05 ug/g	0.1 ng/g	0.2 ng/g	PASS
Mirex	ND	0.01 ug/g	0.02 ng/g	0.04 ng/g	PASS
Parathion Ethyl + Paraoxon Ethyl	ND	0.5 ug/g	1 ng/g	2 ng/g	PASS
Parathion Methyl + Paraoxon Methyl	ND	N/A	0.4 ng/g	0.8 ng/g	N/A
Pentachloroanisole	ND	0.01 ug/g	0.02 ng/g	0.04 ng/g	PASS
Procymidone	ND	0.1 ug/g	0.2 ng/g	0.4 ng/g	PASS
Quintozene (Sum of Quintozene, Pentachloroaniline, and Methyl-Pentachlorophenyl Sulfide)	ND	1 ug/g	2 ng/g	4 ng/g	PASS
S-421	ND	0.02 ug/g	0.04 ng/g	0.08 ng/g	PASS

Modified Test Method does not include the following analytes:
Bromide, inorganic (calculated as bromide ion)
Chlorpyriphos-methyl
Dichlofluanid
Dithiocarbamates (as CS2)
Parathion-methyl and Paraoxon-methyl (sum of)

PGUSP

Pesticides - USP <561>m - GC/TQ

LAB-TM-039 - USP 561 Pesticides Analysis in Articles of Botanical Origin by GC/TQ

PGUSP-DTS-251029-004-01 - WED, NOV 5, 2025

Analyte	Value	Action Limit	LOD	LOQ	Status
Tecnazene	ND	0.05 ug/g	0.1 ng/g	0.2 ng/g	PASS
Tetradifon	ND	0.3 ug/g	0.6 ng/g	1.2 ng/g	PASS
Vinclozolin	ND	0.4 ug/g	0.8 ng/g	1.6 ng/g	PASS

Modified Test Method does not include the following analytes:
Bromide, inorganic (calculated as bromide ion)
Chlorpyriphos-methyl
Dichlofluanid
Dithiocarbamates (as CS2)
Parathion-methyl and Paraoxon-methyl (sum of)

PLUSP

Pesticides - USP <561>m - LC/TQ

LAB-TM-038 - USP 561 Pesticide Analysis in Articles of Botanical Origin by LC/TQ
PLUSP-DTS-251029-004-01 - WED, NOV 5, 2025

Analyte	Value	Action Limit	LOD	LOQ	Status
Acephate	ND	0.4 ug/g	12.5 ng/g	25 ng/g	PASS
Alachlor	ND	N/A	12.5 ng/g	25 ng/g	N/A
Azinphos Ethyl	ND	N/A	12.5 ng/g	25 ng/g	N/A
Azinphos Methyl	ND	N/A	12.5 ng/g	25 ng/g	N/A
Chlorfenvinphos	ND	N/A	12.5 ng/g	25 ng/g	N/A
Chlorpyrifos Ethyl	ND	N/A	12.5 ng/g	25 ng/g	N/A
Cyfluthrin	ND	1 ug/g	12.5 ng/g	25 ng/g	PASS
Cypermethrin	ND	1 ug/g	12.5 ng/g	25 ng/g	PASS
Deltamethrin	ND	N/A	12.5 ng/g	25 ng/g	N/A
Diazinon	ND	0.2 ug/g	12.5 ng/g	25 ng/g	PASS
Dichlorvos	ND	N/A	12.5 ng/g	25 ng/g	N/A
Ethion	ND	N/A	12.5 ng/g	25 ng/g	N/A
Etrimphos	ND	N/A	12.5 ng/g	25 ng/g	N/A
Fenpropathrin	ND	N/A	12.5 ng/g	25 ng/g	N/A
Flucythrinate	ND	N/A	12.5 ng/g	25 ng/g	N/A
Fonophos	ND	N/A	12.5 ng/g	25 ng/g	N/A
Lambda-Cyhalothrin	ND	N/A	12.5 ng/g	25 ng/g	N/A
Mecarbam	ND	N/A	12.5 ng/g	25 ng/g	N/A
Methamidophos	ND	N/A	12.5 ng/g	25 ng/g	N/A
Methidathion	ND	N/A	12.5 ng/g	25 ng/g	N/A
Monocrotophos	ND	N/A	12.5 ng/g	25 ng/g	N/A
Pendimethalin	ND	N/A	12.5 ng/g	25 ng/g	N/A
Permethrins (Sum of Cis- and Trans-Permethrin)	ND	N/A	12.5 ng/g	25 ng/g	N/A
Phosalone	ND	N/A	12.5 ng/g	25 ng/g	N/A
Phosmet	ND	N/A	12.5 ng/g	25 ng/g	N/A
Piperonyl Butoxide	ND	N/A	12.5 ng/g	25 ng/g	N/A
Pirimiphos Ethyl	ND	N/A	12.5 ng/g	25 ng/g	N/A
Pirimiphos Methyl (Sum of Pirimiphos-Methyl and n-Desethyl-Pirimiphos-Methyl)	ND	N/A	12.5 ng/g	25 ng/g	N/A
Profenophos	ND	N/A	12.5 ng/g	25 ng/g	N/A
Prothiophos	ND	N/A	12.5 ng/g	25 ng/g	N/A
Quinalphos	ND	N/A	12.5 ng/g	25 ng/g	N/A
Dimethoate + Omethoate	0.000 ug/g	N/A	N/A	N/A	N/A
Malathion + Malaoxon	0.000 ug/g	N/A	N/A	N/A	N/A

**Total Fensulfothions is calculated as the sum of Fensulfothion, Fensulfothion-Oxon, Fensulfothion-Oxonsulfon, and Fensulfothion-Sulfon*
**Total Fenthions is calculated as the sum of Fenthion, Fenthion-Oxon, Fenthion-Oxon-Sulfon, Fenthion-Oxon-Sulfoxid, Fenthion-Sulfon, and Fenthion-Sulfoxid*
**Total Pyrethrins is calculated as the sum of Cinerin I, Jasmolin I, and Pyrethrin I*

Modified Test Method does not include the following analytes:
Bromide, inorganic (calculated as bromide ion)
Chlorpyriphos-methyl
Dichlofluanid
Dithiocarbamates (as CS2)
Parathion-methyl and Paraoxon-methyl (sum of)

PLUSP

Pesticides - USP <561>m - LC/TQ

LAB-TM-038 - USP 561 Pesticide Analysis in Articles of Botanical Origin by LC/TQ

PLUSP-DTS-251029-004-01 - WED, NOV 5, 2025

Analyte	Value	Action Limit	LOD	LOQ	Status
Total Fensulfothions*	0.000 ug/g	N/A	N/A	N/A	N/A
Total Fenthions*	0.000 ug/g	N/A	N/A	N/A	N/A
Total Pyrethrins - MI*	0.000 ug/g	N/A	N/A	N/A	N/A

**Total Fensulfothions is calculated as the sum of Fensulfothion, Fensulfothion-Oxon, Fensulfothion-Oxonsulfon, and Fensulfothion-Sulfon*

**Total Fenthions is calculated as the sum of Fenthion, Fenthion-Oxon, Fenthion-Oxon-Sulfon, Fenthion-Oxon-Sulfoxid, Fenthion-Sulfon, and Fenthion-Sulfoxid*

**Total Pyrethrins is calculated as the sum of Cinerin I, Jasmolin I, and Pyrethrin I*

Modified Test Method does not include the following analytes:
Bromide, inorganic (calculated as bromide ion)
Chlorpyriphos-methyl
Dichlofluanid
Dithiocarbamates (as CS2)
Parathion-methyl and Paraoxon-methyl (sum of)

TAMC

Total Aerobic Bacteria - Plate - 25g - Full Range

LAB-TM-060 - Enumeration of Total Aerobic Count in Foods and Dietary Supplements

TAMC-DTS-251029-004-01 - THU, NOV 6, 2025

Analyte	Value	Action Limit	LOD	LOQ	Status
Total Aerobic Count	ND	10000000 CFU/g	100 CFU/g	100 CFU/g	PASS

HVMET

Heavy Metals - Big 4

LAB-TM-044 - Determination of Heavy Metals by ICP-MS

HVMET-DTS-251029-004-01 - WED, NOV 5, 2025

Analyte	Value	Value (mg/g)	Per Serving	Per Package	Action Limit	LOD	LOQ	Status
Arsenic	ND	N/A	N/A	N/A	N/A	0.509 ug/kg	2.062 ug/kg	N/A
Cadmium	0.011 ug/g	0.000 mg/g	0.01 ug	0.01 ug	N/A	0.256 ug/kg	0.509 ug/kg	N/A
Lead	0.051 ug/g	0.000 mg/g	0.05 ug	0.05 ug	N/A	0.255 ug/kg	0.515 ug/kg	N/A
Mercury	0.008 ug/g	0.000 mg/g	0.01 ug	0.01 ug	N/A	0.025 ug/kg	0.057 ug/kg	N/A

TYMFD

Total Yeast & Mold - Plate - 25g - Full Range

LAB-TM-061 - Enumeration of Yeast and Mold in Foods and Dietary Supplements

TYMFD-DTS-251029-004-01 - FRI, NOV 7, 2025

Analyte	Value	Action Limit	LOD	LOQ	Status
Total Mold	ND	N/A	10 CFU/g	10 CFU/g	N/A
Total Yeast	ND	N/A	10 CFU/g	10 CFU/g	N/A
Total Yeast and Mold*	ND	100000 CFU/g	10 CFU/g	10 CFU/g	PASS

**Total Yeast and Mold is calculated as the sum of Total Yeast and Total Mold*

SOLHM

Residual Solvents - National Panel

ANA-TM-004 - Determination of Residual Solvents

SOLHM-DTS-251029-004-01 - WED, NOV 5, 2025

Analyte	Value	Action Limit	LOD	LOQ	Status
1,1-Dichloroethene	ND	N/A	0.78 ug/g	2.59 ug/g	N/A
1,2-Dichloroethane	ND	5 ug/g	0.5 ug/g	1.00 ug/g	PASS
2-Methylbutane	ND	N/A	1.54 ug/g	5.14 ug/g	N/A
2-Methylpentane	ND	N/A	0.046 ug/g	0.154 ug/g	N/A
2,2-Dimethylbutane	ND	N/A	0.98 ug/g	3.27 ug/g	N/A
2,3-Dimethylbutane	ND	N/A	2.19 ug/g	7.32 ug/g	N/A
3-Methylpentane	ND	N/A	0.73 ug/g	2.44 ug/g	N/A
Acetone	ND	5000 ug/g	1.57 ug/g	5.23 ug/g	PASS
Acetonitrile	ND	410 ug/g	1.85 ug/g	6.17 ug/g	PASS
Benzene	ND	2 ug/g	0.18 ug/g	0.50 ug/g	PASS
Butane	ND	N/A	1.68 ug/g	5.59 ug/g	N/A
Chloroform	ND	60 ug/g	0.78 ug/g	1 ug/g	PASS
Ethanol	ND	5000 ug/g	6.02 ug/g	20.1 ug/g	PASS
Ethyl Acetate	ND	5000 ug/g	1.95 ug/g	6.49 ug/g	PASS
Ethyl Ether	ND	5000 ug/g	1.37 ug/g	4.55 ug/g	PASS
Ethylene Oxide	ND	N/A	0.15 ug/g	0.49 ug/g	N/A
Heptane	ND	5000 ug/g	1.31 ug/g	4.37 ug/g	PASS
Hexane	ND	290 ug/g	1.42 ug/g	4.74 ug/g	PASS
Isobutane	ND	N/A	1.6 ug/g	5.34 ug/g	N/A
Isopropyl Alcohol	ND	N/A	4.9 ug/g	16.3 ug/g	N/A
Methanol	<LOQ	3000 ug/g	7.89 ug/g	26.4 ug/g	PASS
Methylene Chloride	ND	600 ug/g	1.36 ug/g	4.53 ug/g	PASS
Neopentane	ND	N/A	1.49 ug/g	4.97 ug/g	N/A
Pentane	ND	5000 ug/g	1.46 ug/g	4.87 ug/g	PASS
Propane	ND	N/A	1.95 ug/g	6.51 ug/g	N/A
Toluene	ND	890 ug/g	1.88 ug/g	6.26 ug/g	PASS
Total Xylenes	ND	2170 ug/g	2.02 ug/g	6.72 ug/g	PASS
Trichloroethylene	ND	80 ug/g	0.29 ug/g	0.96 ug/g	PASS
Total Butanes*	0.000 ug/g	N/A	N/A	N/A	N/A
Total Hexanes*	0.000 ug/g	290 ug/g	N/A	N/A	PASS
Total Pentanes*	0.000 ug/g	5000 ug/g	N/A	N/A	PASS

Total Butanes is calculated as the sum of Butane and Isobutane

Total Hexanes is calculated as the sum of Hexane, 2,2-Dimethylbutane, 2,3-Dimethylbutane, 2-Methylpentane, and 3-Methylpentane.

Total Pentanes is calculated as the sum of Pentane, 2-Methylbutane, and Neopentane.