

# CERTIFICATE OF ANALYSIS



**SAMPLE NAME:** TABLETS

**SAMPLE CODE:** DTS-241009-020

**CLIENT:** KR8OM

**BATCH RESULT:** PASS

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License #:



**MATRIX NAME:** Pill - Tablet  
**SAMPLE TYPE:** Quality Assurance  
**RECEIVED DATE:** Mon, Oct 14, 2024  
**PUBLISHED DATE:** Mon, Oct 21, 2024  
**BATCH/LOT CODE:** C19W007  
**BATCH SIZE:** 60000g  
**SAMPLE SIZE:** 32g  
**AVERAGE UNIT WEIGHT:** 0.9553g (1 tablet)

MITRAGYNINE	16.29 mg / serv
TOTAL MAJOR ALKALOIDS	32.87 mg / serv
TOTAL MINOR ALKALOIDS	0.00 mg / serv

ALKU ✓ Kratom Alkaloids High Level	ALKL ✓ Kratom Alkaloids Low Level	ECOLI ✓ Total E. Coli & Coliforms Plate	MOS ✓ Moisture Content Loss on Drying	PGUSP ✓ Pesticides USP <561>
PLUSP ✓ Pesticides USP <561>	TAMC ✓ Total Aerobic Bacteria Plate	SS ✓ Salmonella & STEC qPCR	AWA ✓ Water Activity	TYMFD ✓ Total Yeast & Mold Plate
HPMET ✓ Heavy Metals 7	FTIRR ✓ Identification by FTIR Report	FTIRA ✓ Identification by FTIR Library Reference		

**RESULTS REVIEWED BY:** Leslie Varela  
Laboratory Director  
Cambium Analytica  
Monday, Oct 21, 2024

**RESULTS CERTIFIED BY:** Douglas Smith  
VP - Scientific Operations  
Cambium Analytica  
Monday, Oct 21, 2024

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ALKU

**KRATOM ALKALOIDS - HIGH LEVEL**LAB-TM-052 - DETERMINATION OF KRATOM ALKALOID CONTENT BY UPLC-DAD  
ALKU-DTS-241009-020-01 - THU, OCT 17, 2024

ANALYTE	VALUE	VALUE (MG/G)	PER SERVING	PER PACKAGE	ACTION LIMIT	LOD	LOQ	STATUS
Mitragynine	1.706 %	17.057 mg/g	16.29 mg	16.29 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Speciociliatine	0.960 %	9.601 mg/g	9.17 mg	9.17 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Paynantheine	0.472 %	4.725 mg/g	4.51 mg	4.51 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Speciogyneine	0.302 %	3.021 mg/g	2.89 mg	2.89 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Total Major Alkaloids	3.440 %	34.404 mg/g	32.87 mg	32.87 mg	N/A	N/A	N/A	N/A

ALKL

**KRATOM ALKALOIDS - LOW LEVEL**LAB-TM-047 - DETERMINATION OF KRATOM ALKALOID CONTENT BY LC-TQ  
ALKL-DTS-241009-020-01 - SUN, OCT 20, 2024

ANALYTE	VALUE	VALUE (MG/G)	PER SERVING	PER PACKAGE	ACTION LIMIT	LOD	LOQ	STATUS
7-Hydroxymitragynine	0.00050 %	0.00500 mg/g	0.00 mg	0.00 mg	N/A	0.002 ug/g	0.011 ug/g	N/A
Mitraphylline	0.00001 %	0.00006 mg/g	0.00 mg	0.00 mg	N/A	0.004 ug/g	0.019 ug/g	N/A
Total Minor Alkaloids	0.00051 %	0.00505 mg/g	0.00 mg	0.00 mg	N/A	0.006 ug/g	0.03 ug/g	N/A

ECOLI

**TOTAL E. COLI & COLIFORMS - PLATE**LAB-TM-059 - ENUMERATION OF ESCHERICHIA COLI AND TOTAL COLIFORM IN FOODS AND DIETARY SUPPLEMENTS  
ECOLI-DTS-241009-020-01 - WED, OCT 16, 2024

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
E. coli	ND	N/A	10 CFU/g	10 CFU/g	N/A
Total Coliforms	ND	N/A	10 CFU/g	10 CFU/g	N/A

MOS

**MOISTURE CONTENT - LOSS ON DRYING**LAB-TM-008 - LOSS ON DRYING  
MOS-DTS-241009-020-01 - WED, OCT 16, 2024

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Moisture	2.77 %	N/A			N/A



PGUSP

## PESTICIDES - USP &lt;561&gt; - GC/TQ

LAB-TM-039 - USP 561 PESTICIDES ANALYSIS IN ARTICLES OF BOTANICAL ORIGIN BY GC/TQ  
PGUSP-DTS-241009-020-01 - FRI, OCT 18, 2024

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
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-Heptachlorepoxyde, and Trans-Heptachlorepoxyde)	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
Methacrifos	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
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



PGUSP

**PESTICIDES - USP <561> - GC/TQ**LAB-TM-039 - USP 561 PESTICIDES ANALYSIS IN ARTICLES OF BOTANICAL ORIGIN BY GC/TQ  
PGUSP-DTS-241009-020-01 - FRI, OCT 18, 2024

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
S-421	ND	0.02 ug/g	0.04 ng/g	0.08 ng/g	PASS
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



PLUSP

## PESTICIDES - USP &lt;561&gt; - LC/TQ

LAB-TM-038 - USP 561 PESTICIDE ANALYSIS IN ARTICLES OF BOTANICAL ORIGIN BY LC/TQ  
PLUSP-DTS-241009-020-01 - WED, OCT 16, 2024

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
Dimethoate + Omethoate	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
Fensulfothion (Sum of Fensulfothion, Fensulfothion-Oxon, Fensulfothion-Oxon-Sulfone, and Fensulfothion-Sulfone)	ND	N/A	12.5 ng/g	25 ng/g	N/A
Fenthion (Sum of Fenthion, Fenthion-Oxon, Fenthion-Oxon-Sulfone, Fenthion-Oxon-Sulfoxide, Fenthion-Sulfone, and Fenthion-Sulfoxide)	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
Malathion + Malaaxon	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



PLUSP

## PESTICIDES - USP &lt;561&gt; - LC/TQ

LAB-TM-038 - USP 561 PESTICIDE ANALYSIS IN ARTICLES OF BOTANICAL ORIGIN BY LC/TQ  
PLUSP-DTS-241009-020-01 - WED, OCT 16, 2024

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
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
Pyrethrins (Sum of Cinerin 1, Jasmolin 1, and Pyrethrin 1)	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



TAMC

**TOTAL AEROBIC BACTERIA - PLATE**LAB-TM-060 - ENUMERATION OF TOTAL AEROBIC COUNT IN FOODS AND DIETARY SUPPLEMENTS  
TAMC-DTS-241009-020-01 - WED, OCT 16, 2024

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Total Aerobic Count	ND	N/A	100 CFU/g	100 CFU/g	N/A

SS

**SALMONELLA & STEC- QPCR**LAB-TM-006 - MICROBIAL ANALYSIS BY QPCR  
SS-DTS-241009-020-01 - WED, OCT 16, 2024

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Salmonella Spp	ND	N/A	N/A	N/A	N/A
Shiga Toxin Producing E. coli	ND	N/A	N/A	N/A	N/A

AWA

**WATER ACTIVITY**LAB-TM-009 - DETERMINATION OF WATER ACTIVITY  
AWA-DTS-241009-020-01 - WED, OCT 16, 2024

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Water Activity	0.399 aw	N/A	N/A	N/A	N/A

TYMFD

**TOTAL YEAST & MOLD - PLATE**LAB-TM-061 - ENUMERATION OF YEAST AND MOLD IN FOODS AND DIETARY SUPPLEMENTS  
TYMFD-DTS-241009-020-01 - THU, OCT 17, 2024

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Total Yeast and Mold	ND	N/A	10 CFU/g	10 CFU/g	N/A

HPMET

**HEAVY METALS - 7**LAB-TM-044 - DETERMINATION OF HEAVY METALS BY ICP-MS  
HPMET-DTS-241009-020-01 - WED, OCT 16, 2024

ANALYTE	VALUE	VALUE (MG/G)	PER SERVING	PER PACKAGE	ACTION LIMIT	LOD	LOQ	STATUS
Arsenic	ND	N/A	N/A	N/A	N/A	0.198 ug/kg	0.662 ug/kg	N/A
Cadmium	0.009 ug/g	N/A	0.01 ug	0.01 ug	N/A	0.082 ug/kg	0.272 ug/kg	N/A
Chromium	0.200 ug/g	N/A	0.19 ug	0.19 ug	N/A	0.627 ug/kg	2.091 ug/kg	N/A
Copper	2.517 ug/g	N/A	2.40 ug	2.40 ug	N/A	0.155 ug/kg	0.515 ug/kg	N/A
Lead	0.034 ug/g	N/A	0.03 ug	0.03 ug	N/A	0.155 ug/kg	0.515 ug/kg	N/A
Mercury	0.003 ug/g	N/A	0.00 ug	0.00 ug	N/A	0.017 ug/kg	0.057 ug/kg	N/A
Nickel	0.141 ug/g	N/A	0.13 ug	0.13 ug	N/A	0.321 ug/kg	1.071 ug/kg	N/A

FTIRR

**IDENTIFICATION BY FTIR - REPORT**NULL IDENTIFICATION BY FTIR  
FTIRR-DTS-241009-020-01 - WED, OCT 16, 2024

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Quality Index Score	98.924 %	N/A			N/A

FTIRA

**IDENTIFICATION BY FTIR - LIBRARY REFERENCE**NULL IDENTIFICATION BY FTIR - LIBRARY REFERENCE  
FTIRA-DTS-241009-020-01 - WED, OCT 16, 2024

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Library Reference Addition	Confirmed	N/A	N/A	N/A	N/A

