

CERTIFICATE OF ANALYSIS

SAMPLE NAME: KRATOM EXTRACT 65% (PART# 01091)

SAMPLE CODE: DTS-240716-004

CLIENT: MIT45

BATCH RESULT: PASS



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MATRIX NAME: Extract - Other
SAMPLE TYPE: Quality Assurance
RECEIVED DATE: Wed, Jul 17, 2024
PUBLISHED DATE: Tue, Jul 23, 2024
BATCH/LOT CODE: 24-05/111/x/65/SA/C
BATCH SIZE: N/A
SAMPLE SIZE: 60g

MITRAGYNINE	69.177 %
TOTAL MAJOR ALKALOIDS	72.609 %
TOTAL MINOR ALKALOIDS	0.00715 %



ALKU Kratom Alkaloids High Level	ALKL Kratom Alkaloids Low Level	SAL Salmonella 25g qPCR	ECOLI Total E. Coli & Coliforms Plate	PGUSP Pesticides USP <561>
PLUSP Pesticides USP <561>	TAMC Total Aerobic Bacteria Plate	SAUR Staphylococcus aureus Plate	HVMET Heavy Metals 4	TYMFD Total Yeast & Mold Plate
FTIRR Identification by FTIR Report				

RESULTS REVIEWED BY: Leslie Varela
Laboratory Director
Cambium Analytica
Tuesday, Jul 23, 2024

RESULTS CERTIFIED BY: Douglas Smith
VP - Scientific Operations
Cambium Analytica
Tuesday, Jul 23, 2024

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ALKU KRATOM ALKALOIDS - HIGH LEVEL LAB-TM-052 - DETERMINATION OF KRATOM ALKALOID CONTENT BY UPLC-DAD ALKU-DTS-240716-004-01 - TUE, JUL 16, 2024						
ANALYTE	VALUE	VALUE (MG/G)	ACTION LIMIT	LOD	LOQ	STATUS
Mitragynine	69.177 %	691.772 mg/g	N/A	0.3 ug/g	0.5 ug/g	N/A
Paynantheine	1.924 %	19.244 mg/g	N/A	0.3 ug/g	0.5 ug/g	N/A
Speciogynine	1.122 %	11.219 mg/g	N/A	0.3 ug/g	0.5 ug/g	N/A
Speciociliatine	0.386 %	3.856 mg/g	N/A	0.3 ug/g	0.5 ug/g	N/A
Total Major Alkaloids	72.609 %	726.091 mg/g	N/A			N/A

ALKL KRATOM ALKALOIDS - LOW LEVEL LAB-TM-047 - DETERMINATION OF KRATOM ALKALOID CONTENT BY LC-TQ ALKL-DTS-240716-004-01 - TUE, JUL 16, 2024						
ANALYTE	VALUE	VALUE (MG/G)	ACTION LIMIT	LOD	LOQ	STATUS
7-Hydroxymitragynine	0.00715 %	0.07154 mg/g	N/A	0.01 ug/kg	0.1 ug/kg	N/A
Mitraphylline	ND	N/A	N/A	0.01 ug/kg	0.1 ug/kg	N/A
Total Minor Alkaloids	0.00715 %	0.07154 mg/g	N/A	0.01 ug/kg	0.1 ug/kg	N/A



SAL SALMONELLA - 25G QPCR LAB-TM-063 - DETECTION AND ISOLATION OF SALMONELLA SPP. IN FOODS AND DIETARY SUPPLEMENTS SAL-DTS-240716-004-01 - TUE, JUL 16, 2024						
ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS	
Salmonella Spp	ND	Detection	1 CFU/g		PASS	



ECOLI TOTAL E. COLI & COLIFORMS - PLATE LAB-TM-059 - ENUMERATION OF ESCHERICHIA COLI AND TOTAL COLIFORM IN FOODS AND DIETARY SUPPLEMENTS ECOLI-DTS-240716-004-01 - TUE, JUL 16, 2024						
ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS	
E. coli	ND	Detection	10 CFU/g	10 CFU/g	PASS	
Total Coliforms	ND	1000 CFU/g	10 CFU/g	10 CFU/g	PASS	





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-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
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
Tecnazene	ND	0.05 ug/g	0.1 ng/g	0.2 ng/g	PASS





ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
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





ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Acephate	ND	0.1 ug/g	12.5 ng/g	25 ng/g	PASS
Alachlor	ND	0.05 ug/g	12.5 ng/g	25 ng/g	PASS
Azinphos Ethyl	ND	0.1 ug/g	12.5 ng/g	25 ng/g	PASS
Azinphos Methyl	ND	1 ug/g	12.5 ng/g	25 ng/g	PASS
Chlorfenvinphos	ND	0.5 ug/g	12.5 ng/g	25 ng/g	PASS
Chlorpyrifos Ethyl	ND	0.2 ug/g	12.5 ng/g	25 ng/g	PASS
Cyfluthrin	ND	0.1 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	0.5 ug/g	12.5 ng/g	25 ng/g	PASS
Diazinon	ND	0.5 ug/g	12.5 ng/g	25 ng/g	PASS
Dichlorvos	ND	1 ug/g	12.5 ng/g	25 ng/g	PASS
Dimethoate + Omethoate	ND	0.1 ug/g	12.5 ng/g	25 ng/g	PASS
Ethion	ND	2 ug/g	12.5 ng/g	25 ng/g	PASS
Etrimphos	ND	0.05 ug/g	12.5 ng/g	25 ng/g	PASS
Fenpropathrin	ND	0.03 ug/g	12.5 ng/g	25 ng/g	PASS
Fensulfothion (Sum of Fensulfothion, Fensulfothion-Oxon, Fensulfothion-Oxon-Sulfone, and Fensulfothion-Sulfone)	ND	0.05 ug/g	12.5 ng/g	25 ng/g	PASS
Fenthion (Sum of Fenthion, Fenthion-Oxon, Fenthion-Oxon-Sulfone, Fenthion-Oxon-Sulfoxide, Fenthion-Sulfone, and Fenthion-Sulfoxide)	ND	0.05 ug/g	12.5 ng/g	25 ng/g	PASS
Flucythrinate	ND	0.05 ug/g	12.5 ng/g	25 ng/g	PASS
Fonophos	ND	0.05 ug/g	12.5 ng/g	25 ng/g	PASS
Lambda-Cyhalothrin	ND	1 ug/g	12.5 ng/g	25 ng/g	PASS
Malathion + Malaaxon	ND	1 ug/g	12.5 ng/g	25 ng/g	PASS
Mecarbam	ND	0.05 ug/g	12.5 ng/g	25 ng/g	PASS
Methamidophos	ND	0.05 ug/g	12.5 ng/g	25 ng/g	PASS
Methidathion	ND	0.2 ug/g	12.5 ng/g	25 ng/g	PASS
Monocrotophos	ND	0.1 ug/g	12.5 ng/g	25 ng/g	PASS
Pendimethalin	ND	0.1 ug/g	12.5 ng/g	25 ng/g	PASS
Permethrins (Sum of Cis- and Trans-Permethrin)	ND	1 ug/g	12.5 ng/g	25 ng/g	PASS
Phosalone	ND	0.1 ug/g	12.5 ng/g	25 ng/g	PASS
Phosmet	ND	0.05 ug/g	12.5 ng/g	25 ng/g	PASS
Piperonyl Butoxide	ND	3 ug/g	12.5 ng/g	25 ng/g	PASS





ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Pirimiphos Ethyl	ND	0.05 ug/g	12.5 ng/g	25 ng/g	PASS
Pirimiphos Methyl (Sum of Pirimiphos-Methyl and n-Desethyl-Pirimiphos-Methyl)	ND	4 ug/g	12.5 ng/g	25 ng/g	PASS
Profenophos	ND	0.1 ug/g	12.5 ng/g	25 ng/g	PASS
Prothiophos	ND	0.05 ug/g	12.5 ng/g	25 ng/g	PASS
Pyrethrins (Sum of Cinerin 1, Jasmolin 1, and Pyrethrin 1)	ND	3 ug/g	12.5 ng/g	25 ng/g	PASS
Quinalphos	ND	0.05 ug/g	12.5 ng/g	25 ng/g	PASS



TAMC

TOTAL AEROBIC BACTERIA - PLATE

LAB-TM-060 - ENUMERATION OF TOTAL AEROBIC COUNT IN FOODS AND DIETARY SUPPLEMENTS

TAMC-DTS-240716-004-01 - TUE, JUL 16, 2024

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Total Aerobic Count	ND	10000 CFU/g	100 CFU/g	100 CFU/g	PASS

SAUR

STAPHYLOCOCCUS AUREUS - PLATE

LAB-TM-062 - ENUMERATION OF STAPHYLOCOCCUS AUREUS IN FOODS AND DIETARY SUPPLEMENTS

SAUR-DTS-240716-004-01 - TUE, JUL 16, 2024

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
S. aureus	ND	Detection	10 CFU/g	10 CFU/g	PASS

HVMET

HEAVY METALS - 4

LAB-TM-044 - DETERMINATION OF HEAVY METALS BY ICP-MS

HVMET-DTS-240716-004-01 - TUE, JUL 16, 2024

ANALYTE	VALUE	VALUE (MG/G)	ACTION LIMIT	LOD	LOQ	STATUS
Arsenic	ND	N/A	1 ug/g	0.282 ug/kg	0.282 ug/kg	PASS
Cadmium	ND	N/A	1 ug/g	0.627 ug/kg	2.091 ug/kg	PASS
Lead	0.362 ug/g	N/A	3 ug/g	0.155 ug/kg	0.515 ug/kg	PASS
Mercury	0.002 ug/g	N/A	1 ug/g	0.082 ug/kg	0.272 ug/kg	PASS

TYMFD

TOTAL YEAST & MOLD - PLATE

LAB-TM-061 - ENUMERATION OF YEAST AND MOLD IN FOODS AND DIETARY SUPPLEMENTS

TYMFD-DTS-240716-004-01 - TUE, JUL 16, 2024

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

FTIRR

IDENTIFICATION BY FTIR - REPORT

NULL IDENTIFICATION BY FTIR

FTIRR-DTS-240716-004-01 - TUE, JUL 16, 2024

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Quality Index Score	99.39 %	95-100 N/A			PASS

