

CERTIFICATE OF ANALYSIS



SAMPLE NAME: PART#30005-MIT45LIQUIDGOLD(15ML) 12 PACK
SAMPLE CODE: DTS-241230-004
CLIENT: MIT45
BATCH RESULT: PASS

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MATRIX NAME: Tincture - Oil Based
SAMPLE TYPE: Quality Assurance
RECEIVED DATE: Thu, Jan 2, 2025
PUBLISHED DATE: Tue, Jan 7, 2025
BATCH/LOT CODE: 00-2039
BATCH SIZE: 9U
SAMPLE SIZE: 135 m L
AVERAGE UNIT WEIGHT: 17.814g (Density (1.1876 g/mL) x 15mL package.
3 servings/package.)

MITRAGYNI NE 42.05 mg /serv

TOTAL MAJOR ALKALOIDS 59.40 mg /serv

TOTAL MINOR ALKALOIDS 0.01 mg /serv

ALKU ✓

Kratom Alkaloids
High Level

AIKL ✓

Kratom Alkaloids
Low Level

SOL ✓

Residual Solvents
USP <467>

SAL ✓

Salmonella
25g qPCR

ECOLI ✓

Total E. Coli & Coliforms
Pl at e

PGUSP ✓

Pesticides
USP <561>

PLUSP ✓

Pesticides
USP <561>

TAMC ✓

Total Aerobic Bacteria
Pl at e

DEN ✓

Density of Liquids

SAUR ✓

Staphylococcus aureus
Pl at e

AWA ✓

Water Activity

HVMET ✓

Heavy Metals
4

TYMFD ✓

Total Yeast & Mold
Pl at e

FTIRR ✓

Identification by FTIR
Re por t

APPROVALS

RESULTS REVIEWED BY:

Leslie Varela
Laboratory Director

Cambium Analytica
Tuesday, Jan 7, 2025

RESULTS CERTIFIED BY:

Douglas Smith
VP - Scientific Operations

Cambium Analytica
Tuesday, Jan 7, 2025

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ALKU

KRATOM ALKALOIDS - HIGH LEVEL

LAB-TM-052 - DETERMINATION OF KRATOM ALKALOID CONTENT BY UPLC-DAD

ALKU-DTS-241230-004-01 - TUE, JAN 7, 2025

ANALYTE	VALUE	VALUE (MG/G)	PER SERVING	PER PACKAGE	ACTION LIMIT	LOD	LOQ	STATUS
Mitragynine	0.7082 %	7.082 mg/g	42.05 mg	126.18 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Paynantheine	0.1431 %	1.431 mg/g	8.50 mg	25.49 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Speciociliatine	0.0756 %	0.756 mg/g	4.49 mg	13.47 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Speciogynine	0.0734 %	0.734 mg/g	4.36 mg	13.08 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Total Major Alkaloids	1.0003 %	10.003 mg/g	59.40 mg	178.19 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-241230-004-01 - TUE, JAN 7, 2025



ANALYTE	VALUE	VALUE (MG/G)	PER SERVING	PER PACKAGE	ACTION LIMIT	LOD	LOQ	STATUS
7-Hydroxymitragynine	0.00021 %	0.002 mg/g	0.01 mg	0.04 mg	N/A	0.002 ug/g	0.011 ug/g	N/A
Mitraphylline	0.00021 %	0.002 mg/g	0.01 mg	0.04 mg	N/A	0.004 ug/g	0.019 ug/g	N/A
Total Minor Alkaloids	0.00021 %	0.002 mg/g	0.01 mg	0.04 mg	N/A	0.006 ug/g	0.03 ug/g	N/A





ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
1,2-Dichloroethane	ND	5 ug/g	0.4 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	N/A
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	PASS
Chloroform	ND	60 ug/g	0.78 ug/g	1.00 ug/g	N/A
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	PASS
Heptane	ND	5000 ug/g	1.31 ug/g	4.37 ug/g	N/A
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	PASS
Isopropyl Alcohol	ND	N/A	4.9 ug/g	16.3 ug/g	N/A
Methanol	ND	3000 ug/g	7.89 ug/g	26.4 ug/g	N/A
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	PASS
Pentane	ND	5000 ug/g	1.46 ug/g	4.87 ug/g	N/A
Propane	ND	N/A	1.95 ug/g	6.51 ug/g	PASS
Toluene	ND	890 ug/g	1.88 ug/g	6.26 ug/g	N/A
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
Butanes (Sum of Butane and Isobutane)					PASS
Hexanes (Sum of Hexane, 2,2-Dimethylbutane, 2,3-Dimethylbutane, 2-Methylpentane, and 3-Methylpentane)	ND	N/A			N/A
Pentanes (Sum of Pentane, 2-Methylbutane, and Neopentane)	ND	290 ug/g			PASS
	ND	5000 ug/g			PASS



SAL	SALMONELLA - 25G QPCR				
	LAB-TM-063 - DETECTION AND ISOLATION OF SALMONELLA SPP. IN FOODS AND DIETARY SUPPLEMENTS				
	SAL-DTS-241230-004-01 - MON, JAN 6, 2025				
ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	
Salmonella Spp	ND	Detection	N/A	N/A	

E COLI	TOTAL E. COLI & COLIFORMS - PLATE				
	LAB-TM-059 - ENUMERATION OF ESCHERICHIA COLI AND TOTAL COLIFORM IN FOODS AND DIETARY SUPPLEMENTS				
	ECOLI-DTS-241230-004-01 - MON, JAN 6, 2025				
ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	
E. coli	ND	1000 CFU/g	10 CFU/g	10 CFU/g	
Total Coliforms					



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	N	0.5 ug/g	1 ng/g	2 ng/g	PASS
Fenvalerate	D	1.5 ug/g	3 ng/g	6 ng/g	PASS
Fluvalinate-Tau	N	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)	N	0.6 ug/g	1.2 ng/g	2.4 ng/g	PASS
Methachlorophos	D	0.05 ug/g	0.1 ng/g	0.2 ng/g	PASS
Methoxychlor	N	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	N	0.01 ug/g	0.02 ng/g	0.04 ng/g	PASS
Procymidone	D	0.1 ug/g	0.2 ng/g	0.4 ng/g	PASS
Quintozene (Sum of Quintozene, Pentachloroaniline, and Methyl-Pentachlorophenyl Sulfide)	N	1 ug/g	2 ng/g	4 ng/g	PASS





ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
S - 421	ND	0.02 ug/g	0.04 ng/g	0.08 ng/g	PASS
	ND	0.05 ug/g	0.1 ng/g	0.2 ng/g	
Te cn aze n e	ND	0.3 ug/g	0.6 ng/g	1.2 ng/g	PASS
Tetradifon	ND	0.4 ug/g	0.8 ng/g	1.6 ng/g	PASS
Vinclozolin					PASS



ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Piperonyl Butoxide	ND	3 ug/g	12.5 ng/g	25 ng/g	PASS
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
Profe n oph os	N	0.1 ug/g	12.5	25	PASS
Pyrethrins (Sum of Cinerin 1, Jasmolin 1, and Pyrethrin 1)	D	0.05 ug/g	ng/g	ng/g	PASS
Quinalphos	ND	3 ug/g	12.5 ng/g	25 ng/g	PASS
	D		ng/g	ng/g	
	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-241230-004-01 - MON, JAN 6, 2025

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

DEN

DENSITY OF LIQUIDS

LAB-TM-017 - BRIX & DENSITY ANALYSIS

DEN-DTS-241230-004-01 - FRI, JAN 3, 2025

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Density	1.188 g/mL	N/A			N/A

SAUR

STAPHYLOCOCCUS AUREUS - PLATE

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

SAUR-DTS-241230-004-01 - MON, JAN 6, 2025

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

AWA

WATER ACTIVITY

LAB-TM-009 - DETERMINATION OF WATER ACTIVITY

AWA-DTS-241230-004-01 - MON, JAN 6, 2025

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Water Activity	0.983 aw	N/A	N/A	N/A	N/A

HVMET

HEAVY METALS - 4

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

HVMET-DTS-241230-004-01 - MON, JAN 6, 2025

ANALYTE	VALUE	VALUE (MG/G)	PER SERVING	PER PACKAGE	ACTION LIMIT	LOD	LOQ	STATUS
Arsenic	ND	N/A	N/A	N/A	1.00 ug/g	0.198 ug/kg	0.662 ug/kg	
Cadmium	ND	N/A	N/A	N/A	1.00 ug/g	0.082 ug/kg	0.272 ug/kg	PASS
Lead	0.003 ug/g	0 mg/g	0.02 ug	0.05 ug	3.00 ug/g	0.155 ug/kg	0.515 ug/kg	PASS
Mercury	ND	N/A	N/A	N/A	1.00 ug/g	0.017 ug/kg	0.057 ug/kg	PASS
								PASS

TYMFD

TOTAL YEAST & MOLD - PLATE

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

TYMFD-DTS-241230-004-01 - MON, JAN 6, 2025

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Total Yeast and Mold	ND	100 CFU/g	100 CFU/g	100 CFU/g	PASS

FTIRR

IDENTIFICATION BY FTIR - REPORT

NULL IDENTIFICATION BY FTIR

FTIRR-DTS-241230-004-01 - FRI, JAN 3, 2025

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Quality Index Score	99.9%	95-100%			PASS

