

# CERTIFICATE OF ANALYSIS



**SAMPLE NAME:** PART # X30038 - MIT45 SUPER K (30ML) 12 PACK  
**SAMPLE CODE:** DTS-250325-006  
**CLIENT:** MIT45  
**BATCH RESULT:** PASS

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**MATRIX NAME:** Tincture - Oil Based  
**SAMPLE TYPE:** Quality Assurance  
**RECEIVED DATE:** Wed, Mar 26, 2025  
**PUBLISHED DATE:** Mon, Mar 31, 2025  
**BATCH/LOT CODE:** 00-2240-S  
**BATCH SIZE:** 270mL  
**SAMPLE SIZE:** 270mL  
**AVERAGE UNIT WEIGHT:** 35.622g (Density (1.1874 g/mL) x 30mL package. 6 servings/package.)

MITRAGYNE	26.39 mg / serv
TOTAL MAJOR ALKALOIDS	37.36 mg / serv
TOTAL MINOR ALKALOIDS	0.00 mg / serv

ALKU ✓ Kratom Alkaloids High Level	ALKL ✓ Kratom Alkaloids Low Level	SAL ✓ Salmonella 25g qPCR	ECOLI ✓ Total E. Coli & Coliforms Plate	TAMC ✓ Total Aerobic Bacteria Plate
DEN ✓ Density of Liquids	SAUR ✓ Staphylococcus aureus Plate	AWA ✓ Water Activity	TYMF ✓ Total Yeast & Mold Plate	FTIRR ✓ Identification by FTIR Report

## APPROVALS

### RESULTS REVIEWED BY:

**Leslie Varela**  
Laboratory Director

Cambium Analytica  
Monday, Mar 31, 2025

### RESULTS CERTIFIED BY:

**Douglas Smith**  
VP - Scientific Operations

Cambium Analytica  
Monday, Mar 31, 2025

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ALKU

**KRATOM ALKALOIDS - HIGH LEVEL**

LAB-TM-052 - DETERMINATION OF KRATOM ALKALOID CONTENT BY UPLC-DAD  
 ALKU-DTS-250325-006-01 - MON, MAR 31, 2025

ANALYTE	VALUE	VALUE (MG/G)	PER SERVING	PER PACKAGE	ACTION LIMIT	LOD	LOQ	STATUS
Mitragynine	0.4445 %	4.445 mg/g	26.39 mg	158.34 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Paynantheine	0.0905 %	0.905 mg/g	5.37 mg	32.24 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Speciociliatine	0.0480 %	0.480 mg/g	2.85 mg	17.10 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Speciognine	0.0462 %	0.462 mg/g	2.74 mg	16.46 mg	N/A	0.3 ug/g	0.5 ug/g	N/A
Total Major Alkaloids	0.6292 %	6.292 mg/g	37.36 mg	224.13 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-250325-006-01 - MON, MAR 31, 2025



ANALYTE	VALUE	VALUE (MG/G)	PER SERVING	PER PACKAGE	ACTION LIMIT	LOD	LOQ	STATUS
7-Hydroxymitragynine	0.00007 %	0.001 mg/g	0.00 mg	0.02 mg	N/A	0.002 ug/g	0.011 ug/g	N/A
Mitraphylline	0.00001 %	0.000 mg/g	0.00 mg	0.00 mg	N/A	0.004 ug/g	0.019 ug/g	N/A
Total Minor Alkaloids	0.00008 %	0.001 mg/g	0.00 mg	0.03 mg	N/A	0.006 ug/g	0.03 ug/g	N/A

SAL

**SALMONELLA - 25G QPCR**

LAB-TM-063 - DETECTION AND ISOLATION OF SALMONELLA SPP. IN FOODS AND DIETARY SUPPLEMENTS  
 SAL-DTS-250325-006-01 - FRI, MAR 28, 2025



ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Salmonella Spp	ND	Detection	N/A	N/A	PASS

ECOLI

**TOTAL E. COLI & COLIFORMS - PLATE**

LAB-TM-059 - ENUMERATION OF ESCHERICHIA COLI AND TOTAL COLIFORM IN FOODS AND DIETARY SUPPLEMENTS  
 ECOLI-DTS-250325-006-01 - FRI, MAR 28, 2025



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

TAMC

**TOTAL AEROBIC BACTERIA - PLATE**

LAB-TM-060 - ENUMERATION OF TOTAL AEROBIC COUNT IN FOODS AND DIETARY SUPPLEMENTS  
 TAMC-DTS-250325-006-01 - FRI, MAR 28, 2025



ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Total Aerobic Count	ND	10000 CFU/g	10 CFU/g	10 CFU/g	PASS

DEN

**DENSITY OF LIQUIDS**

LAB-TM-017 - BRIX & DENSITY ANALYSIS  
 DEN-DTS-250325-006-01 - THU, MAR 27, 2025



ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Density	1.1874 g/mL	N/A	N/A	N/A	N/A



SAUR

**STAPHYLOCOCCUS AUREUS - PLATE**LAB-TM-062 - ENUMERATION OF STAPHYLOCOCCUS AUREUS IN FOODS AND DIETARY SUPPLEMENTS  
SAUR-DTS-250325-006-01 - FRI, MAR 28, 2025

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

AWA

**WATER ACTIVITY**LAB-TM-009 - DETERMINATION OF WATER ACTIVITY  
AWA-DTS-250325-006-01 - FRI, MAR 28, 2025

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Water Activity	0.587 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-250325-006-01 - MON, MAR 31, 2025

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Total Yeast and Mold	ND	100 CFU/g	10 CFU/g	10 CFU/g	PASS

FTIRR

**IDENTIFICATION BY FTIR - REPORT**NULL IDENTIFICATION BY FTIR  
FTIRR-DTS-250325-006-01 - FRI, MAR 28, 2025

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Quality Index Score	99.96 %	95-100 %	N/A	N/A	PASS

*Matched Library Item: Super K 30 ml*