

Certificate of Analysis

Sample Name: Part # X30038 - MIT45 Super K (30mL) 12 Pack
Client: MIT45
Sample Code: DTS-250904-002
Matrix Name: Tincture - Oil Based
Type / Result: Quality Assurance - Pass



Received Date: Fri, Sep 5, 2025
Published Date: Wed, Sep 10, 2025
Batch/Lot Code: 00-2500-S
Batch Size: 270mL
Sample Size: 270mL
Average Unit Weight: 35.562g (Density (g/mL) x 30mL package. 6 servings/package.)

RESULT SUMMARY	
Mitragynine	24.35 mg /serv
Total Major Alkaloids	31.84 mg /serv
Total Minor Alkaloids	0.01 mg /serv
Total Yeast and Mold	ND

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

Approvals					
RESULTS REVIEWED BY:			RESULTS CERTIFIED BY:		
	Leslie Varela Laboratory Director	Cambium Analytica Wednesday, Sep 10, 2025		Douglas Smith VP - Scientific Operations	Cambium Analytica Wednesday, Sep 10, 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-250904-002-01 - TUE, SEP 9, 2025								
Analyte	Value	Value (mg/g)	Per Serving	Per Package	Action Limit	LOD	LOQ	Status
Mitragynine	0.4109 %	4.1086 mg/g	24.35 mg	146.11 mg	N/A	0.3 ug/g	0.5 ug/g	N / A
Paynantheine	0.0681 %	0.6813 mg/g	4.04 mg	24.23 mg	N/A	0.3 ug/g	0.5 ug/g	N / A
Speciogynine	0.0339 %	0.3393 mg/g	2.01 mg	12.07 mg	N/A	0.3 ug/g	0.5 ug/g	N / A
Speciociliatine	0.0243 %	0.2433 mg/g	1.44 mg	8.65 mg	N/A	0.3 ug/g	0.5 ug/g	N / A
Total Major Alkaloids*	0.5373 %	5.3726 mg/g	31.84 mg	191.06 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-250904-002-01 - WED, SEP 10, 2025								
Analyte	Value	Value (mg/g)	Per Serving	Per Package	Action Limit	LOD	LOQ	Status
7-Hydroxymitragynine	0.00008 %	0.00079 mg/g	0.00 mg	0.03 mg	N/A	0.002 ug/g	0.011 ug/g	N / A
Mitraphylline	0.00003 %	0.00033 mg/g	0.00 mg	0.01 mg	N/A	0.004 ug/g	0.019 ug/g	N / A
Total Minor Alkaloids*	0.00011 %	0.00112 mg/g	0.01 mg	0.04 mg	N/A	N/A	N/A	N / A

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

SAL Salmonella spp. - qPCR - 25g LAB-TM-063 - Detection and Isolation of Salmonella spp. in Foods and Dietary Supplements SAL-DTS-250904-002-01 - TUE, SEP 9, 2025						ISO ISO 17025 ACC0108187		
Analyte	Value	Action Limit	LOD	LOQ	Status			
Salmonella spp.	ND	Detection	N/A	N/A	PASS			

ECOLI Total Coliforms & E. coli - Plate - 25g - Full Range LAB-TM-059 - Enumeration of Escherichia coli and Total Coliform in Foods and Dietary Supplements ECOLI-DTS-250904-002-01 - TUE, SEP 9, 2025						ISO ISO 17025 ACC0108187		
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 - 25g - Full Range LAB-TM-060 - Enumeration of Total Aerobic Count in Foods and Dietary Supplements TAMC-DTS-250904-002-01 - TUE, SEP 9, 2025						ISO ISO 17025 ACC0108187		
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-250904-002-01 - MON, SEP 8, 2025



Analyte	Value	Action Limit	LOD	LOQ	Status
Density	1.1854 g/mL	N/A	N/A	N/A	N / A

SAUR

Staphylococcus aureus - Plate - 25g
LAB-TM-062 - Enumeration of Staphylococcus aureus in Foods and Dietary Supplements
SAUR-DTS-250904-002-01 - TUE, SEP 9, 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-250904-002-01 - TUE, SEP 9, 2025



Analyte	Value	Action Limit	LOD	LOQ	Status
Water Activity	0.598 aw	N/A	N/A	N/A	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-250904-002-01 - WED, SEP 10, 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	100 CFU/g	10 CFU/g	10 CFU/g	PASS

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

FTIRR

Identification by FTIR - Report
ANA-TM-113 - Identification by FTIR
FTIRR-DTS-250904-002-01 - MON, SEP 8, 2025

Analyte	Value	Action Limit	LOD	LOQ	Status
Quality Index Score	100.0 %	95 - 100 %	N/A	N/A	PASS

Mit45 Super K 30mL (12 Pack)

