



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794

Report Number: 22-001416/D002.R000
Report Date: 02/14/2022
Purchase Order:
Received: 02/07/22 11:43 AM



Customer: Top Tree Herbs
2000 S. Colorado Blvd.
Tower One, Suite 2000 #1046
Denver, CO 80222

Sample ID: 2212014, 2301015P, 2301015L
Sample Matrix: Kratom Leaf
Laboratory ID: 22-001416-0001
Evidence of: No
Cooling: Temp: 20 °C
Relinquished by: Courier

Sample Results

Metals

Heavy Metals Profile K

Analyte	Result	Units	LOQ	Analyzed	Method	Threshold	Pass/Fail	Notes
Arsenic	0.249	mg/kg	0.008	02/10/22	AOAC2013.06(mod.) ₁	2.08	pass	
Cadmium	0.0277	mg/kg	0.008	02/10/22	AOAC2013.06(mod.) ₁	0.850	pass	
Lead	0.455	mg/kg	0.008	02/10/22	AOAC2013.06(mod.) ₁	1.25	pass	
Mercury	0.0175	mg/kg	0.004	02/10/22	AOAC2013.06(mod.) ₁	0.410	pass	
Nickel	2.09	mg/kg	0.017	02/10/22	AOAC2013.06(mod.) ₁	20.0	pass	

1) trace metals in food by Inductively Coupled Mass Spectrometry

Microbiology

Microbiology Profile B

Analyte	Result	Units	LOQ	Analyzed	Method	Threshold	Pass/Fail	Notes
Aerobic Plate Count	890,000	cfu/g	1,000	02/10/22	AOAC 990.12 (Petrifilm)	10,000,000	pass	
E.coli	< LOQ	cfu/g	100	02/10/22	AOAC 991.14 (Petrifilm)	100	pass	
Enterobacteriaceae	100	cfu/g	100	02/09/22	AOAC 2003.01	10,000	pass	
Mold (RAPID Petrifilm)	8,000	cfu/g	1,000	02/11/22	AOAC 2014.05 (RAPID)	50,000	pass	
Yeast (RAPID Petrifilm)	41,000	cfu/g	1,000	02/11/22	AOAC 2014.05 (RAPID)	50,000	pass	
Salmonella, 375g, by PCR	Negative	/375g	-	02/09/22	AOAC 2020.02 ₂	Negative	pass	

2) GENE-UP® Assay

Mitragynine

Mitragynine Full Alkaloid Panel

Analyte	Result	Units	LOQ	Analyzed	Method	Threshold	Pass/Fail	Notes
7-Hydroxymitragynine†	0.0100	%	0.010	02/10/22	In house method by HPLC-DAD			
Isorhynchophylline	< LOQ	%	0.050	02/10/22	In house method by HPLC-DAD			

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.



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Mitragynine

Mitragynine Full Alkaloid Panel

Analyte	Result	Units	LOQ	Analyzed	Method	Threshold	Pass/Fail	Notes
Mitragynine*	0.940	%	0.050	02/10/22	In house method by HPLC-DAD			
Mitraphylline	< LOQ	%	0.050	02/10/22	In house method by HPLC-DAD			
Paynantheine	0.143	%	0.050	02/10/22	In house method by HPLC-DAD			
Speciociliatine	0.350	%	0.050	02/10/22	In house method by HPLC-DAD			
Speciogynine	0.125	%	0.050	02/10/22	In house method by HPLC-DAD			

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12423 NE Whitaker Way
Portland, OR 97230
503-254-1794

Report Number: 22-015117/D002.R000
Report Date: 12/19/2022
Purchase Order:
Received: 02/07/22 11:43 AM



Customer: Top Tree Herbs
2000 S. Colorado Blvd.
Tower One, Suite 2000 #1046
Denver, CO 80222

Sample ID: 2212014, 2301015P, 2301015L

Sample Matrix: Kratom Leaf

Laboratory ID: 22-001216-0001

Evidence of Cooling: No

Temp: 20 °C

Relinquished by: Courier

Sample Results

Microbiology

Analyte	Result	Units	LOQ	AnalyzedMethod	Threshold	Pass/Fail	Notes
Salmonella, 375g, by PCR	Negative	/375g	-	02/09/22 AOAC 2020.02 ₁	Negative	pass	

1) GENE-UP® Assay

Abbreviations

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

Threshold Note: limits based on AHPA recommended limits for unprocessed herbs and supplements and ingredients and 4.8 g daily c

† = Analyte not ISO accredited

Units of Measure

cfu/g = Colony forming units per gram

mg/kg = Milligram per kilogram = parts per million (ppm)

/375g = Per 375 grams

% = Percentage of sample

Approved Signatory

Derrick Tanner
General Manager