



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

Report Number: 22-011444/D002.R001
Report Date: 10/05/2022
Purchase Order:
Received: 09/22/22 04:31 PM



This is an amended version of report# 22-011444/D002.R000.
Reason: Added reporting limits

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

Sample ID: 2302001
Sample Matrix: Kratom powder
Laboratory ID: 22-011444-0002
Evidence of Cooling: No
Temp: 22.3°C
Relinquished by: Courier

Sample Results

Metals

Heavy Metals Profile K

Analyte	Result	Units	LOQ	Analyzed	Method	Threshold	Pass/Fail	Notes
Arsenic	0.00896	mg/kg	0.00050	09/29/22	AOAC 2013.06 (mod.) ^{p1}	2.08	pass	
Cadmium	0.0214	mg/kg	0.00801	09/29/22	AOAC 2013.06 (mod.) ^{p1}	0.850	pass	
Lead	0.634	mg/kg	0.00801	09/29/22	AOAC 2013.06 (mod.) ^{p1}	1.25	pass	
Mercury	0.0231	mg/kg	0.00400	09/29/22	AOAC 2013.06 (mod.) ^{p1}	0.410	pass	
Nickel	3.00	mg/kg	0.0160	09/29/22	AOAC 2013.06 (mod.) ^{p1}	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	1,000	cfu/g	100	09/26/22	AOAC 990.12 (Petrifilm) ^p	10,000,000	pass	
E.coli	< LOQ	cfu/g	100	09/26/22	AOAC 991.14 (Petrifilm) ^p	100	pass	
Enterobacteriaceae	<LOQ	cfu/g	100	09/25/22	AOAC 2003.01 ^p	10,000	pass	
Mold (RAPID Petrifilm)	<LOQ	cfu/g	100	09/27/22	AOAC 2014.05 (RAPID) ^p	50,000	pass	
Yeast (RAPID Petrifilm)	900	cfu/g	100	09/27/22	AOAC 2014.05 (RAPID) ^p	50,000	pass	
Salmonella, 375g, by PCR	Negative	/375g	-	09/25/22	AOAC 2020.02 ₂	Negative	pass	

2) GENE-UP® Assay

Mitragynine



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Mitragynine

Mitragynine Full Alkaloid Panel

Analyte	Result	Units	LOQ	Analyzed	Method	Threshold	Pass/Fail	Notes
7-Hydroxymitragynine	0.0157	%	0.0100	09/26/22	In house method by HPLC-DAD			
Isorhynchophylline	<LOQ	%	0.0500	09/26/22	In house method by HPLC-DAD			
Mitragynine	1.16	%	0.0500	09/26/22	In house method by HPLC-DAD			
Mitraphylline	<LOQ	%	0.0500	09/26/22	In house method by HPLC-DAD			
Paynantheine	0.251	%	0.0500	09/26/22	In house method by HPLC-DAD			
Speciociliatine	0.267	%	0.0500	09/26/22	In house method by HPLC-DAD			
Speciogynine	0.178	%	0.0500	09/26/22	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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Microbiology								
Analyte	Result	Units	LOQ	Analyzed Method	Threshold	Pass/Fail	Notes	
Salmonella, 375g, by PCR	Negative	/375g	-	09/25/22 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

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