



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

Report Number: 22-015117/D002.R000
Report Date: 12/19/2022
Purchase Order:
Received: 12/12/22 10:06 AM



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

Sample ID: 2302003
Sample Matrix: Kratom powder
Laboratory ID: 22-015177-0001
Evidence of Cooling: No
Temp: 18.8 °C
Relinquished by: Courier

Sample Results

Metals

Heavy Metals Profile K

Analyte	Result	Units	LOQ	Analyzed	Method	Threshold	Pass/Fail	Notes
Arsenic	0.192	mg/kg	0.00860	12/15/22	AOAC 2013.06 (mod.) ^{P1}	2.08	pass	
Cadmium	0.0168	mg/kg	0.00860	12/15/22	AOAC 2013.06 (mod.) ^{P1}	0.850	pass	
Lead	0.588	mg/kg	0.00860	12/15/22	AOAC 2013.06 (mod.) ^{P1}	1.25	pass	
Mercury	0.0160	mg/kg	0.00430	12/15/22	AOAC 2013.06 (mod.) ^{P1}	0.410	pass	
Nickel	1.77	mg/kg	0.0172	12/15/22	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	2,200	cfu/g	100	12/16/22	AOAC 990.12 (Petrifilm) ^P	10,000,000	pass	
E.coli	< LOQ	cfu/g	100	12/16/22	AOAC 991.14 (Petrifilm) ^P	100	pass	
Enterobacteriaceae	<LOQ	cfu/g	100	12/15/22	AOAC 2003.01 ^P	10,000	pass	
Mold (RAPID Petrifilm)	<LOQ	cfu/g	100	12/17/22	AOAC 2014.05 (RAPID) ^P	50,000	pass	
Yeast (RAPID Petrifilm)	<LOQ	cfu/g	100	12/17/22	AOAC 2014.05 (RAPID) ^P	50,000	pass	
Salmonella, 375g, by PCR	Negative	/375g	-	12/15/22	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	< LOQ	%	0.0100	12/16/22	In house method by HPLC-DAD			
Isorhynchophylline	< LOQ	%	0.0500	12/16/22	In house method by HPLC-DAD			



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Mitragynine

Mitragynine Full Alkaloid Panel

Analyte	Result	Units	LOQ	Analyzed	Method	Threshold	Pass/Fail	Notes
Mitragynine	1.29	%	0.0500	12/16/22	In house method by HPLC-DAD			
Mitraphylline	<LOQ	%	0.0500	12/16/22	In house method by HPLC-DAD			
Paynantheine	0.264	%	0.0500	12/16/22	In house method by HPLC-DAD			
Speciociliatine	0.409	%	0.0500	12/16/22	In house method by HPLC-DAD			
Speciogynine	0.197	%	0.0500	12/16/22	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.