



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

Report Number: 22-010974/D002.R000
Report Date: 09/19/2022
Purchase Order:
Received: 09/14/22 12:12 PM



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

Sample ID: 2212017, 2301021M, 2301021P
Sample Matrix: Kratom Leaf
Laboratory ID: 22-010974-0001
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	0.166	mg/kg	0.00868	09/16/22	AOAC 2013.06 (mod.) ^{P1}	2.08	pass	
Cadmium	0.00982	mg/kg	0.00868	09/16/22	AOAC 2013.06 (mod.) ^{P1}	0.850	pass	
Lead	0.485	mg/kg	0.00868	09/16/22	AOAC 2013.06 (mod.) ^{P1}	1.25	pass	
Mercury	0.0165	mg/kg	0.00434	09/16/22	AOAC 2013.06 (mod.) ^{P1}	0.410	pass	
Nickel	1.52	mg/kg	0.0174	09/16/22	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	33,000	cfu/g	1,000	09/17/22	AOAC 990.12 (Petrifilm) ^P	10,000,000	pass	
E.coli	< LOQ	cfu/g	100	09/17/22	AOAC 991.14 (Petrifilm) ^P	100	pass	
Enterobacteriaceae	100	cfu/g	100	09/16/22	AOAC 2003.01 ^P	10,000	pass	
Mold (RAPID Petrifilm)	400	cfu/g	100	09/18/22	AOAC 2014.05 (RAPID) ^P	50,000	pass	
Yeast (RAPID Petrifilm)	<LOQ	cfu/g	100	09/18/22	AOAC 2014.05 (RAPID) ^P	50,000	pass	
Salmonella, 375g, by PCR	Negative	/375g	-	09/16/22	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	09/15/22	In house method by HPLC-DAD			
Isorhynchophylline	< LOQ	%	0.0500	09/15/22	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	0.823	%	0.0500	09/15/22	In house method by HPLC-DAD			
Mitraphylline	< LOQ	%	0.0500	09/15/22	In house method by HPLC-DAD			
Paynantheine	0.175	%	0.0500	09/15/22	In house method by HPLC-DAD			
Speciociliatine	0.210	%	0.0500	09/15/22	In house method by HPLC-DAD			
Speciogynine	0.126	%	0.0500	09/15/22	In house method by HPLC-DAD			