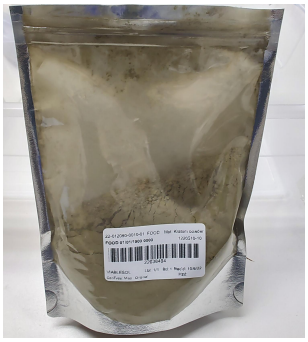
Columbia LABORATORIES
A Tentamus Company

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

Report Number: 22-012080/D022.R000
Report Date: 10/14/2022
Purchase Order:
Received: 10/06/22 09:36 AM

Customer: Viable Solutions
62 6 St N
Nampa Idaho 83687
United States of America (USA)



Sample ID: 1220510-10
Sample Matrix: Kratom powder
Laboratory ID: 22-012080-0010
Evidence of Cooling: No
Temp: 20.1 °C
Relinquished by: Fedex

Sample Results

Metals

Heavy Metals Profile K

Analyte	Result	Units	LOQ	Analyzed	Method	Threshold	Pass/Fail	Notes
Arsenic	0.247	mg/kg	0.0155	10/11/22	AOAC 2013.06 (mod.)[þ1]	1.50	pass	
Cadmium	0.0226	mg/kg	0.0155	10/11/22	AOAC 2013.06 (mod.)[þ1]	0.500	pass	
Lead	0.733	mg/kg	0.0155	10/11/22	AOAC 2013.06 (mod.)[þ1]	1.00	pass	
Mercury	0.0154	mg/kg	0.00776	10/11/22	AOAC 2013.06 (mod.)[þ1]	0.200	pass	
Nickel	2.76	mg/kg	0.0155	10/11/22	AOAC 2013.06 (mod.)[þ1]	20.0	pass	

1) trace metals in food by Inductively Coupled Mass Spectrometry

Microbiology

Micro Profile L Rapid (M6000)

Analyte	Result	Units	LOQ	Analyzed	Method	Threshold	Pass/Fail	Notes
Aerobic Plate Count	< LOQ	cfu/g	100	10/09/22	AOAC 990.12 (Petrifilm)[þ]	10,000,000	pass	
E.coli	< LOQ	cfu/g	100	10/09/22	AOAC 991.14 (Petrifilm)[þ]	100	pass	
Total Coliforms	< LOQ	cfu/g	100	10/09/22	AOAC 991.14 (Petrifilm)[þ]	10,000	pass	
Staphylococcus aureus	< LOQ	cfu/g	100	10/08/22	AOAC 2003.07[þ]			
Mold (RAPID Petrifilm)	< LOQ	cfu/g	100	10/10/22	AOAC 2014.05 (RAPID)[þ]	50,000	pass	
Yeast (RAPID Petrifilm)	< LOQ	cfu/g	100	10/10/22	AOAC 2014.05 (RAPID)[þ]	50,000	pass	
Listeria spp.	Negative	/25g	-	10/08/22	AOAC 2019.10[þ2]			
Salmonella spp. by PCR	Negative	/25g	-	10/08/22	AOAC 2020.02[þ3]	Negative	pass	

2) GENE-UP® Assay
3) GENE-UP® Assay

Mitragynine

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.

Columbia LABORATORIES
A Tentamus Company

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

Report Number: 22-012080/D022.R000
Report Date: 10/14/2022
Purchase Order:
Received: 10/06/22 09:36 AM

Mitragynine

Mitragynine + 7-Hydroxymitragynine (S3200)

Analyte	Result	Units	LOQ	Analyzed	Method	Threshold	Pass/Fail	Notes
7-Hydroxymitragynine	0.0157	%	0.0100	10/13/22	In house method by HPLC-DAD			
Mitragynine	1.36	%	0.0500	10/13/22	In house method by HPLC-DAD			

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

Units of Measure

/25g = Per 25g
cfu/g = Colony forming units per gram
mg/kg = Milligram per kilogram = parts per million (ppm
% = Percentage of sample

Approved Signatory

Derrick Tanner
General Manager

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.