

09Jan24 11:15a B052923V
Source: Mitragyna
Type of Sample: Other
No. of Samples: 15
Arrival temp.:
Pd B1152 0901

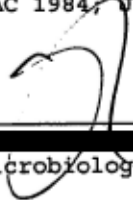
<u>Sample</u>		<u>Lactose</u> <u>Fermentors</u>	<u>Coliforms</u>			<u>Enterococci</u>
			<u>Total</u>	<u>Fecal</u>	<u>E.coli</u>	
1 Mitragyna Speciosa 08Jan24 10:00	ND	ND	ND	ND	ND	

<u>Sample</u>		<u>Total</u> <u>Staph</u>	<u>S.aureus</u>	<u>Yeast/Fungi</u>	<u>TPC*</u>
1 Mitragyna Speciosa 08Jan24 10:00	ND	ND	ND	ND / ND	60610

* All counts are colony forming units per gram

ND = none detected
TPC = total plate count- spread plate method - 35C/48hr TGEA
FDA/BAM 9th ed, Oct 2020
Staph = Staphylococcus spp
S.aureus = Staphylococcus aureus, FDA/BAM 9th ed, Oct 2020
E. coli = Escherichia coli, FDA/BAM 9th ed, Oct 2020
Bergy's Manual of Systematic Bacteriology vol 1, AOAC 1984, J.Clin.Micro.,
J.Intern.Systm.Bact.

- See following page for chemistry results-


Sr. Microbiologist

EMAILED
JAN 12 2024

Arrival temp.:
Pd B1152 0901

Sample: Mitragyna Speciosa 08Jan24 10:00

ELEMENTS	SAMPLE	UNITS	Permitted Daily Exposure *			Dietary Reference+		
			Oral	Inhalation	Topical**	RDA	UL	Units
1) Aluminium	Al	120						
2) Antimony	Sb	<0.010						
3) Arsenic	As	0.243	1200	20	ug/d	5		ug/g
4) Barium	Ba	<0.010	15	2	ug/d	3		ug/g
5) Beryllium	Be	<0.030	1400	300	ug/d			
6) Boron	B	21.7					--	20 mg
7) Cadmium	Cd	<0.010	5	2	ug/d	3		ug/g
8) Calcium	Ca	3374					1000	2500 mg
9) Chromium	Cr	3.11	11000	3	ug/d	35	--	ug
10) Cobalt	Co	<0.100	50	3	ug/d			
11) Copper	Cu	0.038	3000	30	ug/d	900		10000 ug
12) Gold	Au	<0.100	100	1	ug/d			
13) Iron	Fe	282				8		45 mg
14) Lanthanum	La	<0.100						
15) Lead	Pb	0.859	5	5	ug/d	10		ug/g
16) Magnesium	Mg	1236					400	350 mg
17) Manganese	Mn	1181					2.3	11 mg
18) Mercury	Hg	<0.010	30	1	ug/d	3		ug/g
19) Molybdenum	Mo	<0.505	3000	10	ug/d	45		2000 ug
20) Nickel	Ni	<0.100	200	5	ug/d	--		1.0 mg
21) Phosphorus	P	950				700		4000 mg
22) Potassium	K	4373				4700	--	mg
23) Scandium	Sc	<1.00	--	130	ug/d			
24) Selenium	Se	<0.010	150	130	ug/d	55		400 ug
25) Silicon	Si	86.5				--		ND
26) Silver	Ag	<0.100	150	7	ug/d			
27) Sodium	Na	300				1500		2300 mg
28) Strontium	Sr	20.0						
29) Tin	Sn	0.658	6000	60	ug/d			
30) Titanium	Ti	<0.100						
31) Tungsten	W	<0.100						
32) Vanadium	V	<0.050	100	1	ug/d	--		1.8 mg
33) Zinc	Zn	13.5				11		40 mg

RDA = recommended daily allowance ND = not determined blank or -- no limits listed
mg = milligrams UL = tolerable upper intake level ug = micrograms (1 ug/Kg=0.001 ug/g)
* ref: ICH Q3D USP40 <232><233> Table 1 Element Impurities PDE (ug per day = ug/d)
** see Schedule B Canadian Food & Drug Act
+Food & Nutrition Board, Institute of Medicine, National Academies, 2004
USP rev 2017; USDA Nutrient database for Std. Reference SR14 Nov 2001.
HC Quality of Natural Health Products Guide. Section 3 Purity. May 2013
Method: based on Elemental Impurities - Procedures USP <233>

Analytical Chemist

Sr. Analytical Chemist

Date: 09Jan24 11:15a
Source: Mitragyna
Type of Sample: Other
No. of Samples: 15

B052923V

Arrival Temp:
Pd 1152

Sample: 1) Mitragyna Speciosa 08Jan24 10:00

Alkaloids

	Sample 1	Sample 1 DUP	Lab	LOQ	Reference
Compounds	ug/g	ug/g	Blank	ug/g	Recovery %
Mitragynine	9334	9126	ND	0.10	107
7-hydroxymitragynine	52.40	57.0	ND	0.10	97.8

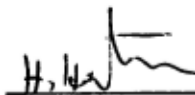
Methods: solvent extraction; measured by UHPLC-ESI - tandem MSMS

MDL = Method Detection Limit
ND = none detected
ug/g = micrograms per gram
% = percent (10mg/g = 1.0%)

n/a = not applicable
trace = compound verified; not quantified

Material will be held for up to 3 weeks unless alternate arrangements have been made.

Chemistry Analyst



Sr. Analytical Chemist