

The client sample was analyzed for plant-based cannabinoids by Convergence Chromatography (CC). The collected data was compared to data collected for certified reference standards at known concentrations.

39245-CN

ID	Weight %	Conc.			
D9-THC	ND	ND			
THCV	ND	ND			
CBD	90.43 wt %	904.28 mg/g			
CBDV	1.49 wt %	14.90 mg/g			
CBG	ND	ND			
CBC	0.07 wt %	0.72 mg/g			
CBN	ND	ND			
THCA	ND	ND			
CBDA	ND	ND			
CBGA	ND	ND			
Total	91.99 wt%	919.90 mg/g	0%	Cannabinoids (wt%)	90.4%
Max THC	-	-			
Max CBD	90.43 wt%	904.28 mg/g			

Max THC (and Max CBD) are calculated values for total cannabinoids after heating, assuming complete decarboxylation of the acid to the neutral form. It is calculated based on the weight loss of the acid group during decarboxylation: Max THC = $(0.877 \times THCA) + THC$. ND = None detected above the limits of detection (LLD)

EA: Elemental Analysis [WI-10-13]Analyst: JFDTest Date: 9/12/2
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This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

39245-EA

Symbol	Metal	Conc. ¹	MDL	Limits ²	Status
Al	Aluminum	3,362 ug/kg	5 ug/kg	-	
As	Arsenic	ND	4 ug/kg	1500 ug/kg	PASS
Cd	Cadmium	ND	1 ug/kg	500 ug/kg	PASS
Ca	Calcium	1,105 ug/kg	500 ug/kg	-	
Cr	Chromium	ND	5 ug/kg	-	
Co	Cobalt	ND	10 ug/kg	-	
Cu	Copper	ND	500 ug/kg	-	
Fe	Iron	363 ug/kg	5 ug/kg	-	
Pb	Lead	ND	2 ug/kg	1000 ug/kg	PASS
Mg	Magnesium	3,411 ug/kg	500 ug/kg	-	
Mn	Manganese	ND	500 ug/kg	-	
Hg	Mercury	ND	2 ug/kg	1500 ug/kg	PASS
Mo	Molybdenum	ND	5000 ug/kg		
Ni	Nickel	ND	500 ug/kg		
Р	Phosphorus	ND	500 ug/kg	-	
K	Potassium	1,532 ug/kg	5 ug/kg	-	
Se	Selenium	ND	10 ug/kg	-	
Ag	Silver	ND	10 ug/kg	-	
S	Sulfur	ND	5 ug/kg	-	
Sn	Tin	ND	5000 ug/kg	-	
Zn	Zinc	ND	5 ug/kg	-	

1) ND = None detected to the Method Detection Limit (MDL)

2) USP 2232 recommened concentration limits for Elemental Contaminates in dietary supplements.

MB1: Microbiological Contaminants [WI-10-09]	Analyst: Doug	Test Date: 9/7/2018

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

39245-MB1

Symbol	Analysis	Results	Units	Limits*	Status
AC	Total Aerobic Bacterial Count	<100	CFU/g	10,000 CFU/g	PASS
CC	Total Coliform Bacterial Count	<100	CFU/g	100 CFU/g	PASS
EB	Total Bile Tolerant Gram Negative Count	<100	CFU/g	100 CFU/g	PASS
YM	Total Yeast & Mold	<100	CFU/g	1,000 CFU/g	PASS

Note: All recorded Microbiological tests are within the established limits.

PST: Pesticide Analysis [WI-10-11]	Analyst: CJH	Test Date: 9/12/2018
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The client sample was analyzed for pesticides using Liquid Chromatography with Mass Spectrometric detection (LC/MS/MS). The method used for sample prep was based on the European method for pesticide analysis (EN 15662).

39245-PST

Analyte	CAS	Result	Units	LLD	Limits (ppb)	Status
Abamectin	71751-41-2	ND	ppb	0.20	300	PASS
Abamectin B1b	65195-56-4	ND	ppb	0.20	300	PASS
Azoxystrobin	131860-33-8	ND	ppb	0.10	40000	PASS
Bifenazate	149877-41-8	ND	ppb	0.10	5000	PASS
Bifenthrin	82657-04-3	8	ppb	0.20	500	PASS
Cyfluthrin	68359-37-5	ND	ppb	0.50	1000	PASS
Daminozide	1596-84-5	ND	ppb	10.00	10	PASS
Etoxazole	153233-91-1	ND	ppb	0.10	1500	PASS
Fenoxycarb	72490-01-8	ND	ppb	0.10	10	PASS
Imazalil	35554-44-0	ND	ppb	0.10	10	PASS
Imidacloprid	138261-41-3	ND	ppb	0.10	3000	PASS
Myclobutanil	88671-89-0	ND	ppb	0.10	9000	PASS
Paclobutrazol	76738-62-0	ND	ppb	0.10	10	PASS
Piperonyl butoxide	e 51-03-6	ND	ppb	0.10	8000	*
Spiromesifen	283594-90-1	ND	ppb	0.10	12000	PASS
Spirotetramat	203313-25-1	ND	ppb	0.10	13000	PASS
Trifloxystrobin	141517-21-7	ND	ppb	0.10	30000	PASS

* Testing limits for ingestion established by the State of California: CCR, Title 16, Division 42, Chapter 5, Section 5313. ND indicates "none detected" above the lower limit of detection (LLD). Analytes marked with (*) indicate analytes for which no recovery was observed for a pre-spiked matrix sample.

TP: Terpenes Profile [WI-10-08]	Analyst: CJH	<i>Test Date: 9/10/2018</i>

The client sample was analyzed by Head-Space Gas Chromatography (HS-GC). The collected data was compared to data collected for certified reference standards at known concentrations.

39245-TP

	Compound	wt%	Quantitativ	ve Profile		Compound	wt%	Quantitati	ve Profile	
	Myrcene					Terpineol				
	Pulegone					Camphene				
	Isopulegol					Fenchone				
	Borneol					B-pinene				
	Menthol*					Eucalyptol	0.004			
	Nerolidol-cis					A-terpenine				
	G-terpenine					3-carene				
	Nerolidol-trans	0.084				A-pinene				
	A-bisabolol	0.016				Citral-1				
	Linalool	0.003				Citral-2				
	Linalyl Acetate					Limonene				
	B-caryophyllene	0.199				Citronellol				
Car	yophyllene Oxide					Geraniol				
	Eugenol*					Ocimene-2				
	Guaiol	0.007				Ocimene-1				
	Sabinene					A-phellandrene				
	Humulene	0.073				Terpinolene				
	P-cymene									
Tot	wi al Terpene: 0.4	t% 0.00 wt%	0.1	0	0.20		0.00	0.	10	0.20

* Indicates qualitative calculation based on recorded peak areas.

VC: Analysis of Volatile Organic Compounds [WI-10-07] Analysis	yst: CJH Test Date: 9,	/10/2018
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The client sample was analyzed by Head-Space Gas Chromatography (HS-GC). The collected data was compared to data collected for certified reference standards at known concentrations.

39245-VC

Compound	CAS	Amount ¹	Limit ²	Status
Propane	74-98-6	ND	N/A	-
Isobutane	75-28-5	ND	5,000 ppm	PASS
Butane	106-97-8	ND	5,000 ppm	PASS
Methanol	67-56-1	ND	3,000 ppm	PASS
Ethanol	64-17-5	14 ppm	5,000 ppm	PASS
Acetone	67-64-1	13 ppm	5,000 ppm	PASS
Isopropanol	67-63-0	19 ppm	5,000 ppm	PASS
Hexane	110-54-3	ND	290 ppm	PASS
Heptane	142-82-5	ND	5,000 ppm	PASS
Toluene	108-88-3	ND	890 ppm	PASS

1) ND = None detected above 5 ppm.

2) In ppm, based on USP recommended limits for residual solvents, adopted by the Massachusetts Department of Public Health on 3/31/16. Butane/Propane limits are based on limits established for state of Colorado.

END OF REPORT