Certificate ID: 37564

Received: 8/3/18

Client Sample ID: CC_18152_080118

Lot Number: CC18152

Matrix: Concentrates/Extracts - Isolate





Authorization:

Jon Podgorni, Lab Manager

Jon Podgorne

Date:

8/16/2018





Signature:



Accreditation # 80585

The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2005. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

CN: Cannabinoid Profile & Potency [WI-10-04]

Analyst: RAS

Test Date: 8/13/2018

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.

37564-CN

ID	Weight %	Conc.			
Δ9-ТНС	ND	ND			
THCV	ND	ND			
CBD	99.58 wt %	995.80 mg/g			
CBDV	0.17 wt %	1.70 mg/g			
CBG	ND	ND			
CBC	ND	ND			
CBN	ND	ND			
THCA	ND	ND			
CBDA =	ND	ND			
CBGA	ND	ND			
Total	99.75 wt%	997.50 mg/g	0%	Cannabinoids (wt%)	99.6%
Max THC	7.8	2			
Max CBD	99.58 wt%	995.80 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 x THCA) + THC. ND = None detected above the limits of detection (LLD)

HM: Heavy Metal Analysis [WI-10-13]

Analyst: JFD

Test Date: 8/9/2018

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.

37564-HM								
Symbol	Metal	Conc.	Units	MDL	All	Ingestion	Units	Status
As	Arsenic	ND	μg/kg	4	200	1500	μg/kg	PASS
Cd	Cadmium	ND	μg/kg	1	200	500	μg/kg	PASS
Hg	Mercury	ND	μg/kg	2	100	1500	μg/kg	PASS
Pb	Lead	ND	μg/kg	2	500	1000	μ g/k g	PASS

¹⁾ ND = None detected to Lowest Limits of Detection (LLD)

MB1: Microbiological Contaminants [WI-10-09]

Analyst: CHudalla

Test Date: 8/3/2018

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.

37564-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	1,00 <mark>0 CFU/g</mark>	PASS

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

²⁾ MA Dept. of Public Health: Protocol for MMJ and MIPS, Exhibit 4(a) for all products.

³⁾USP exposure limits based on daily oral dosing of 1g of concentrate for a 110 lb person.

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.

37564-TP

Compound ppm Quantitative Profile	Compound ppm	Quantitative Profile
Myrcene	Terpineol	
Pulegone	Camphene	
Isopulegol	Fenchone	
Borneol	B-pinene	
Menthol	Eucalyptol	
Nerolidol-cis	A-terpenine	
G-terpenine G-terpenine	3-carene	
Nerolidol-trans 2	A-pinene	
A-bisabolol 2	Citral-1	
Linalool	Citral-2	
Linalyl Acetate	Limonene	
B-caryophyllene t	Citronellol	
yophyllene Oxide	Geraniol	
Eugenol	Ocimene-2	
Guaiol	Ocimene-1	
Sabinene	A-phellandrene**	
Humulene	Terpinolene	
P-cymene 2		
ppm 0.00 5.00 10 tal Terpene: <0.1 wt%	0.00	5.00 10.0

^{*} Indicates qualitative calculation based on recorded peak areas.

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.

37564-VC

Compound	CAS	Amount	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	ND	5,000 թրա	PASS	
Acetone	67-64-1	16 ppm	5,000 ppm	PASS	
Isopropanol	67-63-0	8 ppm	5,000 ppm	PASS	
Acetonitrile	75-05-8	ND	410 ppm	PASS	
Hexane	110-54-3	ND	290 ppm	PASS	
Heptane	142-82-5	ND	5,000 ppm	PASS	

END OF REPORT

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.