

Certificate ID: **65583-56**

Received: **9/23/19**

Scan QR Code for authenticity

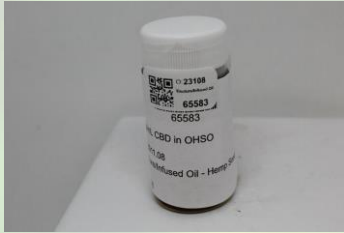
Client Sample ID: **8mg/mL CBD in OHSO**

Lot Number: **1918911.08**

Matrix: **Tincture/Infused Oil - Hemp Seed Oil**




Authorization: Jon Podgorni, Lead Research Chemist	Signature: <i>Jon Podgorni</i>	Date: 10/8/2019
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The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2017. 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-10-17 & WI-10-17-01] Analyst: *LG* Test Date: *9/26/2019*

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

65583-CN

ID	Weight %	Concentration (mg/mL)	
D9-THC	0.02	0.21	
THCV	ND	ND	
CBD	0.99	9.02	
CBDV	0.01	0.12	
CBG	<0.01	<LOQ	
CBC	0.03	0.23	
CBN	<0.01	<LOQ	
THCA	ND	ND	
CBDA	<0.01	<LOQ	
CBGA	ND	ND	
D8-THC	ND	ND	
exo-THC	ND	ND	
Total	1.08	9.76	0% Cannabinoids (wt%) 1.0%
Max THC	0.02	0.21	
Max CBD	1.00	9.10	

Ratio of Total CBD to THC 43.0:1

Limit of Quantitation (LOQ) = 0.01 wt%

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. This calculation does not include other cannabinoid isomers (eg. D8-THC and exo-THC). ND = None detected above the limits of detection (LOD), which is half of LOQ.

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

Analyst: JFD

Test Date: 10/1/2019

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.

65583-HM

Symbol	Metal	Conc. ¹ (µg/kg)	RL	Use Limits ² (µg/kg)		Status
				All	Ingestion	
As	Arsenic	ND	50	200	1500	PASS
Cd	Cadmium	ND	50	200	500	PASS
Hg	Mercury	ND	50	100	1500	PASS
Pb	Lead	ND	50	500	1000	PASS

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

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.

MB1: Microbiological Contaminants [WI-10-09]

Analyst: MJC

Test Date: 9/24/2019

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.

65583-MB1

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

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

MB2: Pathogenic Bacterial Contaminants [WI-10-10]

Analyst: LabAdmin

Test Date: 9/25/2019

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.

65583-MB2

Test ID	Analysis	Results	Units	Limits*	Status
65583-ECPT	E. coli (O157)	Negative	NA	Non Detected	PASS
65583-SPT	Salmonella	Negative	NA	Non Detected	PASS

Note: All recorded pathogenic bacteria tests passed.

END OF REPORT