



Certificate ID: **98577**

Received: **10/19/21**

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The Healing Rose Company

23 Hale Street, Unit H

Newburyport, MA 01950

Attn: Zach McInnis

Client Sample ID: **Full Spectrum Phytocannabinoid Rich CBD Hemp Oil (CO2)**

Lot Number: **PCRHE43**

Matrix: **Concentrates/Extracts - CO2**

Authorization: Chris Hudalla, Chief Science Officer	Signature: 	Date: 10/29/2021
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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: AC

Test Date: 10/23/2021

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.

98577-CN

ID	Weight %	Concentration (mg/g)			
D9-THC	ND	ND			
THCV	ND	ND			
CBD	55.9	559			
CBDV	ND	ND			
CBG	0.363	3.63			
CBC	1.36	13.6			
CBN	0.560	5.60			
THCA	ND	ND			
CBDA	ND	ND			
CBGA	ND	ND			
D8-THC	ND	ND			
exo-THC	ND	ND			
Total	58.2	582	0%	Cannabinoids (wt%)	55.9%
Max THC	ND	ND		Limit of Quantitation (LOQ) = 0.0512 wt%	
Max CBD	55.9	559		Limit of Detection (LOD) = 0.0171 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 one third of Limit of Quantification (LOQ). For values reported as "<LOQ", the estimated value is included in the calculated Total.

EA: Elemental Analysis [WI-10-13]

Analyst: CJS

Test Date: 10/28/2021

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98577-EA

Symbol	Metal	Conc. ¹ (µg/kg)	RL (µg/kg)	Limits ² (µg/kg)	Status
Al	Aluminum	860	50	-	
As	Arsenic	ND	50	15,000	PASS
Cd	Cadmium	ND	50	5,000	PASS
Ca	Calcium	663	500	-	
Cr	Chromium	ND	50	45,000	PASS
Co	Cobalt	ND	50	-	
Cu	Copper	74.0	50	3,100,000	PASS
Fe	Iron	220	50	-	
Pb	Lead	ND	50	400,000	PASS
Mg	Magnesium	380	50	-	
Mn	Manganese	ND	50	-	
Hg	Mercury	ND	50	9,400	PASS
Mo	Molybdenum	ND	50	-	
Ni	Nickel	ND	50	1,500,000	PASS
P	Phosphorus	2,680	500	-	
K	Potassium	3,620	500	-	
Se	Selenium	ND	50	-	
Ag	Silver	ND	50	-	
S	Sulfur	671	500	-	
Sn	Tin	ND	500	-	
Zn	Zinc	143	50	15,000,000	PASS

MBI: Microbiological Contaminants [WI-10-09]

Analyst: MM

Test Date: 10/20/2021

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.

98577-MBI

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

Recommended limits established by the American Herbal Pharmacopoeia (AHP) monograph for Cannabis Inflorescence [2013], for consumable botanical products, including processed and unprocessed cannabis materials, and solvent-based extracts. Note: All recorded Microbiological tests are within the established limits.

MY: Mycotoxin Testing [WI-10-05]

Analyst: CMH/SJ

Test Date: 10/25/2021

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.

98577-MY

Test ID	Date	Results	MDL	Limits	Status*
Total Aflatoxin	10/25/2021	< MDL	2 ppb	< 20 ppb	PASS
Total Ochratoxin	10/25/2021	3.1	3 ppb	< 20 ppb	PASS

PST: Pesticide Analysis [WI-10-11]

Analyst: CJR

Test Date: 10/26/2021

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).

98577-PST

Analyte	CAS	Result	Units	LLD	Limits (ppb)	Status
Abamectin	71751-41-2	ND	ppb	0.20	10	PASS
Azoxystrobin	131860-33-8	ND	ppb	0.10	100	PASS
Bifenazate	149877-41-8	ND	ppb	0.10	100	PASS
Bifenthrin	82657-04-3	ND	ppb	0.20	3000	PASS
Cyfluthrin	68359-37-5	ND	ppb	0.50	2000	PASS
Dichlorvos	62-73-7	ND	ppb	3.00	10	PASS
Etoxazole	153233-91-1	ND	ppb	0.10	100	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	5000	PASS
Myclobutanil	88671-89-0	ND	ppb	0.10	100	PASS
Paclobutrazol	76738-62-0	ND	ppb	0.10	10	PASS
Piperonyl butoxide	51-03-6	ND	ppb	0.10	3000	PASS
Pyrethrin	8003-34-7	ND	ppb	0.10	10	PASS
Spinosad	168316-95-8	ND	ppb	0.10	10	PASS
Spiromesifen	283594-90-1	ND	ppb	0.10	100	PASS
Spirotetramat	203313-25-1	ND	ppb	0.10	100	PASS
Trifloxystrobin	141517-21-7	ND	ppb	0.10	100	PASS

* Testing limits established by the Massachusetts Department of Public Health, Protocol for Sampling and Analysis of Finished Medical Marijuana Products and Marijuana-Infused Products for Massachusetts Registered Medical Marijuana Dispensaries, Exhibit 5. 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 due to matrix interference.

VC: Analysis of Volatile Organic Compounds [WI-10-28]

Analyst: CJS

Test Date: 10/26/2021

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.

98577-VC

Compound	CAS	Amount ¹	Limit ²	RL	Status
Propane	74-98-6	ND	1,000 ppm	4	PASS
Isobutane	75-28-5	ND	1,000 ppm	4	PASS
Butane	106-97-8	ND	1,000 ppm	4	PASS
Methanol	67-56-1	ND	3,000 ppm	100	PASS
Pentane	109-66-0	ND	5,000 ppm	100	PASS
Ethanol	64-17-5	ND	5,000 ppm	100	PASS
Acetone	67-64-1	ND	5,000 ppm	100	PASS
Isopropanol	67-63-0	ND	5,000 ppm	100	PASS
Acetonitrile	75-05-8	ND	410 ppm	100	PASS
Hexane	110-54-3	ND	290 ppm	100	PASS
Heptane	142-82-5	ND	5,000 ppm	100	PASS

1) ND = Not detected at a level greater than the Reporting Limit (RL).

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

(*) For ethanol, as many formulations contain flavorings based on ethanol extracts of natural products, no status has been assigned.

END OF REPORT