



Certificate ID: **102168**

Received: **2/10/22**

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Jonathan Moody
5 Bellevue Avenue
Gloucester, MA 01930
Attn: Jonathan Moody

Client Sample ID: **Wave Hemp Salve**

Lot Number: **1**

Matrix: **Topicals - Salve**

Authorization: Chris Hudalla, Chief Science Officer	Signature: 	Date: 2/17/2022
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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: *sej* Test Date: 2/16/2022

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.

102168-CN

ID	Weight %	Concentration (mg/g)			
Δ9-THC	0.0194	0.194			
THCV	ND	ND			
CBD	1.87	18.7			
CBDV	<LOQ	<LOQ			
CBG	0.0098	0.0980			
CBC	0.0301	0.301			
CBN	ND	ND			
THCA	ND	ND			
CBDA	ND	ND			
CBGA	ND	ND			
Δ8-THC	ND	ND			
exo-THC	ND	ND			
Total	1.93	19.3	0%	Cannabinoids (wt%)	1.87%
Max THC	0.0194	0.194		Limit of Quantitation (LOQ) = 0.0092 wt%	
Max CBD	1.87	18.7		Limit of Detection (LOD) = 0.0031 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: AEH

Test Date: 2/11/2022

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Symbol	Metal	Conc. ¹ (µg/kg)	RL (µg/kg)	Limits ² (µg/kg)	Status
Al	Aluminum	856	50	-	
As	Arsenic	ND	50	1,500	PASS
Cd	Cadmium	ND	50	500	PASS
Ca	Calcium	1,360	500	-	
Cr	Chromium	53.0	50	1,100,000	PASS
Co	Cobalt	ND	50	5,000	PASS
Cu	Copper	64.0	50	300,000	PASS
Fe	Iron	2,160	50	-	
Pb	Lead	ND	50	500	PASS
Mg	Magnesium	55.0	50	-	
Mn	Manganese	ND	50	-	
Hg	Mercury	ND	50	3,000	PASS
Ni	Nickel	ND	50	20,000	PASS
P	Phosphorus	ND	500	-	
K	Potassium	ND	500	-	
Se	Selenium	ND	50	-	
Ag	Silver	ND	50	15,000	PASS
S	Sulfur	153,000	500	-	
Sn	Tin	974	500	600,000	PASS
Zn	Zinc	2,380	50	-	

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

2) USP recommended maximum daily limits for oral drug product.

MB1: Microbiological Contaminants [WI-10-09]

Analyst: BKB

Test Date: 2/11/2022

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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

Test Date: 2/14/2022

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.

102168-MY

Test ID	Date	Results	MDL	Limits	Status*
Total Aflatoxin	2/14/2022	< MDL	2 ppb	< 20 ppb	PASS
Total Ochratoxin	2/14/2022	< MDL	3 ppb	< 20 ppb	PASS

PST: Pesticide Analysis [WI-10-11]

Analyst: CJR

Test Date: 2/14/2022

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).

102168-PST

Analyte	CAS	Result	Units	LLD	Limits (ppb)	Status
Bifenazate	149877-41-8	ND	ppb	0.10	10	PASS
Bifenthrin	82657-04-3	ND	ppb	0.20	10	PASS
Cyfluthrin	68359-37-5	ND	ppb	0.50	10	PASS
Etoxazole	153233-91-1	ND	ppb	0.10	10	PASS
Imazalil	35554-44-0	ND	ppb	0.10	10	PASS
Imidacloprid	138261-41-3	ND	ppb	0.10	10	PASS
Myclobutanil	88671-89-0	ND	ppb	0.10	10	PASS
Spiromesifen	283594-90-1	ND	ppb	0.10	10	PASS
Trifloxystrobin	141517-21-7	ND	ppb	0.10	10	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.

END OF REPORT