



100 south 5<sup>th</sup> street, suite 1085  
minneapolis, minnesota 55402

1.800.665.HEMP  
www.manitobaharvest.com

## CERTIFICATE OF ANALYSIS

Product:	<b>Broad Spectrum Hemp Extract Tincture – Peppermint</b>
Lot No:	<b>190610</b>
Source Lot No:	E19013-1
SKU#:	6119
Date of Manufacture:	June 10, 2019
Best Before Date:	June 10, 2021
Ingredients:	Broad Spectrum Hemp Extract ( <i>Cannabis sativa</i> ) (aerial parts). Other ingredients: Organic Coconut Oil MCT.

Test	Analytical Result	Specification	Testing Method
<b>PROFILE</b>			
<b>CBD (total)</b>	<b>9.8 mg/ml</b>	8-12 mg/ml	HPLC * (LOQ <50 ppm)
CBD	1.038 wt. %	<i>Report only</i>	HPLC * (LOQ <50 ppm)
CBDA	ND	<i>Report only</i>	HPLC * (LOQ <50 ppm)
CBC	ND	<i>Report only</i>	HPLC * (LOQ <50 ppm)
CBCA	ND	<i>Report only</i>	HPLC * (LOQ <50 ppm)
CBG	ND	<i>Report only</i>	HPLC * (LOQ <50 ppm)
CBGA	ND	<i>Report only</i>	HPLC * (LOQ <50 ppm)
CBN	ND	<i>Report only</i>	HPLC * (LOQ <50 ppm)
<b>Δ9 THC (total)</b>	<b>ND</b>	< 0.01%	Calculated *
Δ9 THC	ND	<i>Report only</i>	HPLC * (LOQ <50 ppm)
THCA	ND	<i>Report only</i>	HPLC * (LOQ <50 ppm)
<b>TERPENES</b>			
Total Terpenes	< 0.3 wt. %	<i>Report only</i>	GC-MS *
(-)-alpha-Bisabolol	13mg/100g	<i>Report only</i>	
Camphene	<1.0mg/100g	<i>Report only</i>	
(1S)-(+)-3-Carene	<1.0mg/100g	<i>Report only</i>	
beta-Caryophyllene	50mg/100g	<i>Report only</i>	
p-Cymene	3.3mg/100g	<i>Report only</i>	
Eucalyptol	100mg/100g	<i>Report only</i>	



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alpha-Humulene (alpha-Caryophyllene)	3.6mg/100g	Report only	
(-)-Isopulegol	<1.0mg/100g	Report only	
(R)-(+)-Limonene	43mg/100g	Report only	
Linalool	3.3mg/100g	Report only	
beta-Myrcene	6.0mg/100g	Report only	
(E)-b-Ocimene	0.81mg/100g	Report only	
(Z)-b-Ocimene	2.6mg/100g	Report only	
alpha-Pinene	13mg/100g	Report only	
beta-Pinene	17mg/100g	Report only	
alpha-Terpinene	6.1mg/100g	Report only	
gamma-Terpinene	8.4mg/100g	Report only	
Terpinolene	2.9mg/100g	Report only	
<b>MICROBIOLOGICAL</b>			
Standard Plate Count	(est) 20 cfu/g	< 10,000 cfu/g	AOAC 966.23 *
Total Coliforms	< 10 cfu/g	< 100 cfu/g	AOAC 991.14 *
Yeast & Mold	< 10 cfu/g	< 1,000 cfu/g	BAM Chapter 18 *
<i>E. coli</i>	< 10 cfu/g	< 10 cfu/g	AOAC 991.14 *
<i>Salmonella</i>	Negative	Negative in 25g	AOAC 2004.03 *
<b>MYCOTOXINS</b>			
Aflatoxin B1	<0.500 ppb	< 20 ppb	UHPLC-MS/MS *
Aflatoxin B2	<0.500 ppb	< 20 ppb	
Aflatoxin G1	<0.500 ppb	< 20 ppb	
Aflatoxin G2	<0.500 ppb	< 20 ppb	
Ochratoxin A	<1.00 ppb	Report only	
<b>CHEMICAL</b>			
Residual Solvents	ND	No detection	USP <467> *
Pesticides	ND	No detection	LC/MS/MS AOAC 2007.01 *
Lead	< 0.005 ppm	< 0.5 ppm	ICP-MS
Arsenic	<0.01 ppm	< 0.2 ppm	
Cadmium	< 0.005 ppm	< 0.1 ppm	
Mercury	< 0.005 ppm	< 0.1 ppm	



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Gluten	< 3 ppm	< 20 ppm	AOAC 2012.01 *
<b>ORGANOLEPTIC</b>			
Appearance	Conforms	Liquid	Visual
Color	Conforms	Yellow to Amber	Visual
Odor	Conforms	Characteristic	Olfactory
<b>PHYSICAL DOSAGE</b>			
Fill Volume	32 ml	≥ 30 ml	QCU-90-005

ND = Not detected.

\* Tested at ISO 17025:2005 accredited 3<sup>rd</sup> Party Laboratory: Eurofins Bidiagnostics.

A handwritten signature in black ink, appearing to read "Aaron Cassels".

\_\_\_\_\_  
 Aaron Cassels  
 Quality Control Coordinator

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 October 3, 2019

Date