



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 – Unflavored</b>
Lot No:	<b>190717</b>
Source Lot No:	E19012-1
SKU#:	6120
Date of Manufacture:	June 12 <sup>th</sup> , 2019
Best Before Date:	June 12 <sup>th</sup> , 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>9.9 mg/ml</b>	8-12 mg/ml	HPLC (LOQ <100 ppm)
CBD	1.046 wt. %	<i>Report only</i>	HPLC (LOQ <100 ppm)
CBDA	ND	<i>Report only</i>	HPLC (LOQ <100 ppm)
CBC	ND	<i>Report only</i>	HPLC (LOQ <100 ppm)
CBCA	ND	<i>Report only</i>	HPLC (LOQ <100 ppm)
CBG	ND	<i>Report only</i>	HPLC (LOQ <100 ppm)
CBGA	ND	<i>Report only</i>	HPLC (LOQ <100 ppm)
CBN	ND	<i>Report only</i>	HPLC (LOQ <100 ppm)
<b>Δ9 THC (total)</b>	<b>ND</b>	< 0.01%	Calculated
Δ9 THC	ND	<i>Report only</i>	HPLC (LOQ <100 ppm)
THCA	ND	<i>Report only</i>	HPLC (LOQ <100 ppm)
<b>TERPENES</b>			
Total Terpenes	< 0.3 wt. %	<i>Report only</i>	GC-MS
(-)-alpha-Bisabolol	13mg/100g	<i>Report only</i>	GC-MS
Camphene	<1.0mg/100g	<i>Report only</i>	GC-MS
(1S)-(+)-3-Carene	<1.0mg/100g	<i>Report only</i>	GC-MS
beta-Caryophyllene	6.9mg/100g	<i>Report only</i>	GC-MS
p-Cymene	<1.0mg/100g	<i>Report only</i>	GC-MS
Eucalyptol	<1.0mg/100g	<i>Report only</i>	GC-MS



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alpha-Humulene (alpha-Caryophyllene)	2.2mg/100g	<i>Report only</i>	GC-MS
(-)-Isopulegol	<1.0mg/100g	<i>Report only</i>	GC-MS
(R)-(+)-Limonene	<1.0mg/100g	<i>Report only</i>	GC-MS
Linalool	<1.0mg/100g	<i>Report only</i>	GC-MS
beta-Myrcene	2.4mg/100g	<i>Report only</i>	GC-MS
(E)-b-Ocimene	<0.60mg/100g	<i>Report only</i>	GC-MS
(Z)-b-Ocimene	<0.30mg/100g	<i>Report only</i>	GC-MS
alpha-Pinene	<1.0mg/100g	<i>Report only</i>	GC-MS
beta-Pinene	<1.0mg/100g	<i>Report only</i>	GC-MS
alpha-Terpinene	<1.0mg/100g	<i>Report only</i>	GC-MS
gamma-Terpinene	<1.0mg/100g	<i>Report only</i>	GC-MS
Terpinolene	<1.0mg/100g	<i>Report only</i>	GC-MS
<b>MICROBIOLOGICAL</b>			
Standard Plate Count	< 10 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	FDA 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	UHPLC-MS/MS
Aflatoxin G1	<0.500 ppb	< 20 ppb	UHPLC-MS/MS
Aflatoxin G2	<0.500 ppb	< 20 ppb	UHPLC-MS/MS
Aflatoxin M1	<0.500 ppb	< 20 ppb	UHPLC-MS/MS
Aflatoxin M2	<0.500 ppb	< 20 ppb	UHPLC-MS/MS
Deoxynivalenol	<100 ppb	<i>Report only</i>	UHPLC-MS/MS
T-2 Toxin	<10.0 ppb	<i>Report only</i>	UHPLC-MS/MS
HT-2 Toxin	<100 ppb	<i>Report only</i>	UHPLC-MS/MS
Fumonisin B1	<25.0 ppb	<i>Report only</i>	UHPLC-MS/MS
Fumonisin B2	<25.0 ppb	<i>Report only</i>	UHPLC-MS/MS
Ochratoxin A	<1.00 ppb	<i>Report only</i>	UHPLC-MS/MS



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Zearalenone	<30.0 ppb	<i>Report only</i>	UHPLC-MS/MS
<b>CHEMICAL</b>			
Residual Solvents	ND	No detection	USP <467>
Pesticides	ND	No detection	AOAC 2007.01
Lead	< 0.05 ppm	< 0.5 ppm	ICP-MS
Arsenic	< 0.10 ppm	< 0.2 ppm	
Cadmium	< 0.05 ppm	< 0.1 ppm	
Mercury	< 0.05 ppm	< 0.1 ppm	
Gluten	< 3 ppm	< 20 ppm	ELISA
<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.

Aaron Cassels  
 Quality Control Coordinator

September 13, 2019  
 Date