



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

1.800.665.HEMP  
www.manitobaharvest.com

CERTIFICATE OF ANALYSIS

Product: **Broad Spectrum Hemp Extract (BSHE)  
Plant Protein Blend – Unsweetened**

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Lot No: **191008**

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Source Lot No: P0960

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SKU#: 6138

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Date of Manufacture: October 8, 2019

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Best Before Date: October 8, 2020

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Ingredients: Organic pea protein concentrate, Organic hemp protein concentrate, Organic guar gum. Contains less than 1% of broad spectrum hemp extract, Organic coconut oil MCT, Organic acacia gum, Natural oregano extract.

Test	Analytical Result	Specification	Testing Method
<b>PROFILE</b>			
<b>CBD (total)</b>	12.76 mg/serving	12-18 mg/serving	HPLC * (LOQ <50 ppm)
CBD	0.05 wt. %	Report only	HPLC * (LOQ <50 ppm)
CBDa	<LOQ	Report only	HPLC * (LOQ <50 ppm)
CBC	ND	Report only	HPLC * (LOQ <50 ppm)
CBCa	ND	Report only	HPLC * (LOQ <50 ppm)
CBG	ND	Report only	HPLC * (LOQ <50 ppm)
CBGa	ND	Report only	HPLC * (LOQ <50 ppm)
CBN	ND	Report only	HPLC * (LOQ <50 ppm)
<b>Δ9 THC (total)</b>	ND	< 0.01%	Calculated *
Δ9 THC	ND	Report only	HPLC * (LOQ <50 ppm)
THCA	ND	Report only	HPLC * (LOQ <50 ppm)
<b>TERPENES</b>			
(-)-alpha-Bisabolol	< 10 ppm	Report only	GC-MS*
Camphene	< 10 ppm	Report only	
(1S)-(+)-3-Carene	< 10 ppm	Report only	
beta-Caryophyllene	< 10 ppm	Report only	
p-Cymene	< 10 ppm	Report only	



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Eucalyptol	< 10 ppm	Report only	
alpha-Humulene (alpha-Caryophyllene)	< 10 ppm	Report only	
(-)-Isopulegol	< 10 ppm	Report only	
(R)-(+)-Limonene	< 10 ppm	Report only	
Linalool	< 10 ppm	Report only	
beta-Myrcene	< 10 ppm	Report only	
(E)-b-Ocimene	< 6 ppm	Report only	
(Z)-b-Ocimene	< 3 ppm	Report only	
alpha-Pinene	< 10 ppm	Report only	
beta-Pinene	< 10 ppm	Report only	
alpha-Terpinene	< 10 ppm	Report only	
gamma-Terpinene	< 10 ppm	Report only	
Terpinolene	< 10 ppm	Report only	
<b>MICROBIOLOGICAL</b>			
Standard Plate Count	60est	< 10,000 cfu/g	AOAC 966.23 *
Total Coliforms	< 10 cfu/g	< 100 cfu/g	AOAC 991.14 *
Yeast	< 10 cfu/g	< 1,000 cfu/g	BAM Chapter 18 *
Molds	< 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	< 0.5 ppb	< 20 ppb	UHPLC-MS/MS *
Aflatoxin B2	< 0.5 ppb	< 20 ppb	
Aflatoxin G1	< 0.5 ppb	< 20 ppb	
Aflatoxin G2	< 0.5 ppb	< 20 ppb	
Ochratoxin A	< 1.0 ppb	Report only	
<b>CHEMICAL</b>			
Pesticides	ND	No detection	LC/MS/MS AOAC 2007.01 *
Lead	< 0.005 ppm	< 0.5 ppm	AOAC 993.14 *
Arsenic	0.017 ppm	< 0.2 ppm	
Cadmium	0.039 ppm	< 0.1 ppm	



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Mercury	< 0.005 ppm	< 0.1 ppm	
Gluten	< 3 ppm	< 20 ppm	AOAC 2012.01 *
Residual solvents (Class 2)	ND	No detection	USP <467> *
Acetic acid (Class 3)	1790 ppm	< 5000 ppm	
Formic acid (Class 3)	< 200 ppm	< 5000 ppm	
<b>ORGANOLEPTIC</b>			
Colour	Light tan with a hint of green		Internal SOP
Odour	Neutral, slightly nutty		Internal SOP
Taste	Neutral, bland, slightly umami, slightly nutty flavor		Internal SOP
Appearance	Fine powder, uniform, no particles		Internal SOP
Texture	Very fine, smooth, creamy		Internal SOP

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".

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 Aaron Cassels  
 Quality Control Coordinator

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 October 28, 2019

Date