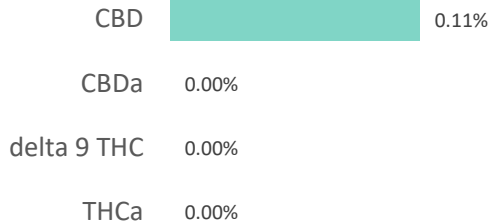
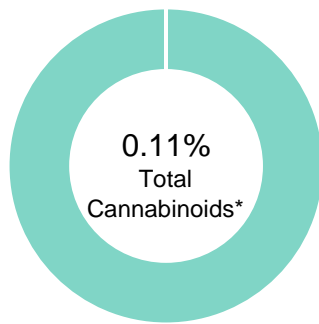


HEMP BALM #709028

Batch ID:	HEMP BALM #709028	Test ID:	9156767.0061
Reported:	17-Sep-2019	Method:	TM14
Type:	Concentrate		
Test:	Potency		

CANNABINOID PROFILE


Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.01	0.00	0.0
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.01	0.00	0.0
Cannabidiolic acid (CBDA)	0.01	0.00	0.0
Cannabidiol (CBD)	0.01	0.11	1.1
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.01	0.00	0.0
Cannabinolic Acid (CBNA)	0.02	0.00	0.0
Cannabinol (CBN)	0.01	0.00	0.0
Cannabigerolic acid (CBGA)	0.01	0.00	0.0
Cannabigerol (CBG)	0.01	0.00	0.0
Tetrahydrocannabivarinic Acid (THCVA)	0.01	0.00	0.0
Tetrahydrocannabivarin (THCV)	0.01	0.00	0.0
Cannabidivarinic Acid (CBDVA)	0.01	0.00	0.0
Cannabidivarin (CBDV)	0.01	0.00	0.0
Cannabichromenic Acid (CBCA)	0.01	0.00	0.0
Cannabichromene (CBC)	0.01	0.00	0.0
Total Cannabinoids		0.11	1.10
Total Potential THC**		0.00	0.00
Total Potential CBD**		0.11	1.10


NOTES:

N/A

% = % (w/w) = Percent (Weight of Analyte / Weight of Product)


* Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.

** Total Potential THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step.

$$\text{Total THC} = \text{THC} + (\text{THCa} * (0.877)) \text{ and Total CBD} = \text{CBD} + (\text{CBDa} * (0.877))$$
FINAL APPROVAL


Alex Smith
17-Sep-2019
12:56 PM

PREPARED BY / DATE



David Green
17-Sep-2019
1:20 PM

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2005 Accredited A2LA Certificate Number 4329.02



Certificate #4329.02

HEMP BALM #709028

Batch ID:	HEMP BALM #709028	Test ID:	8404752.027
Reported:	16-Sep-2019	Method:	Concentrate - Test Methods: TM05, TM06
Type:	Concentrate		
Test:	Microbial Contaminants		

MICROBIAL CONTAMINANTS

Contaminant	Result (CFU/g)*
Total Aerobic Count**	None Detected
Total Coliforms**	None Detected
Total Yeast and Molds**	None Detected
E. coli	None Detected
Salmonella	None Detected

* CFU/g = Colony Forming Unit per Gram

** Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form.

Examples: $10^2 = 100$ CFU
 $10^3 = 1,000$ CFU
 $10^4 = 10,000$ CFU
 $10^5 = 100,000$ CFU

NOTES:


Free from visual mold, mildew, and foreign matter

TYM: None Detected

Total Aerobic: None Detected

Coliforms: None Detected

FINAL APPROVAL


Sarah Henning
16-Sep-2019
2:34 PM
David Green
16-Sep-2019
2:46 PM

PREPARED BY / DATE

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Services, LLC, in the condition it was received. Botanacor Services, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Services, LLC.

HEMP BALM #709028

Batch ID:	HEMP BALM #709028	Test ID:	5053648.020
Reported:	17-Sep-2019	Method:	TM04
Type:	Concentrate		
Test:	Residual Solvents		

RESIDUAL SOLVENTS

Solvent	Reportable Range (ppm)	Result (ppm)
Propane	100 - 2000	0
Butanes (Isobutane, n-Butane)	100 - 2000	0
Pentane	100 - 2000	0
Ethanol	100 - 2000	0
Acetone	100 - 2000	0
Isopropyl Alcohol	100 - 2000	0
Hexane	6 - 120	0
Benzene	0.2 - 4	0.0
Heptanes	100 - 2000	0
Toluene	18 - 360	0
Xylenes (m,p,o-Xylenes)	43 - 860	0

NOTES:

Free from visual mold, mildew, and foreign matter.

FINAL APPROVAL

Alex Smith
17-Sep-2019
2:12 PMDavid Green
17-Sep-2019
2:28 PM

PREPARED BY / DATE

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2005 Accredited A2LA Certificate Number 4329.02



Certificate #4329.02

Certificate of Analysis

Elixinol, LLC

Sample Name:	709028	Eurofins Sample:	8822178
Project ID	ELIXINOL-20190913-0086	Receipt Date	13-Sep-2019
PO Number	CVD	Receipt Condition	Ambient temperature
Lot Number	709028	Login Date	13-Sep-2019
Sample Serving Size		Date Started	13-Sep-2019
		Online Order	13484-123E400E

Analysis	Result
Enterobacteriaceae (Bile-Tolerant Gram-Negative Bacteria) *	
Enterobacterial Count	<10 MPN/g
Preparatory Testing of Nutritional and Dietary Supplements *	
Bile-Tolerant Gram-Neg Bacteria Suitability Result	Pass**
Metals Analysis by ICP-MS	
Arsenic	<0.0646 ppm
Cadmium	<0.0161 ppm
Lead	<0.0161 ppm
Mercury	<0.00807 ppm
Mycotoxins in Raw Materials	
Aflatoxin B1	<0.500 ppb
Aflatoxin B2	<0.500 ppb
Aflatoxin G1	<0.500 ppb
Aflatoxin G2	<0.500 ppb
Ochratoxin A	<1.00 ppb
Glyphosate and AMPA *	
Glyphosate	<100 ng/g
AMPA	<100 ng/g
Multi-Residue Analysis for hemp products - 60+ compounds	
Matrix Type - To Determine Limit of Quantification (LOQ)	Spices - Botanicals - and other Specialty Samples
Abamectin	<0.05 mg/kg
Aldicarb	<0.05 mg/kg
Aldicarb sulfone (Aldoxycarb)	<0.05 mg/kg
Aldicarb sulfoxide	<0.05 mg/kg
Azoxystrobin	<0.05 mg/kg
Bifenazate	<0.05 mg/kg
Bifenthrin	<0.05 mg/kg
Carbaryl	<0.05 mg/kg
Carbofuran	<0.05 mg/kg
Carbofuran-3-hydroxy-	<0.05 mg/kg
Chlorantraniliprole	<0.05 mg/kg
Chlordane, cis-	<0.05 mg/kg
Chlordane, trans-	<0.05 mg/kg

* This analysis or component is not ISO accredited.

Certificate of Analysis

Elixinol, LLC

Sample Name:	709028	Eurofins Sample:	8822178
Project ID	ELIXINOL-20190913-0086	Receipt Date	13-Sep-2019
PO Number	CVD	Receipt Condition	Ambient temperature
Lot Number	709028	Login Date	13-Sep-2019
Sample Serving Size		Date Started	13-Sep-2019
		Online Order	13484-123E400E

Analysis

Result

Multi-Residue Analysis for hemp products - 60+ compounds

Chlorfenapyr	<0.05 mg/kg
Chlorpyrifos	0.019 mg/kg
Coumaphos	<0.05 mg/kg
Cyfluthrin	<0.05 mg/kg
Cypermethrin	<0.05 mg/kg
Cyproconazole (2 diastereoisomers)	<0.05 mg/kg
Cyprodinil	<0.05 mg/kg
Dichlorvos	<0.05 mg/kg
Diclobutrazol	<0.05 mg/kg
Dipropetryn	<0.05 mg/kg
Disulfoton	<0.05 mg/kg
Endosulfan I (alpha-isomer)	<0.05 mg/kg
Endosulfan II (beta-isomer)	<0.05 mg/kg
Endosulfan sulfate	<0.05 mg/kg
Epoxiconazole	<0.05 mg/kg
Ethiofencarb	<0.05 mg/kg
Etofenprox	<0.05 mg/kg
Etoxazole	<0.05 mg/kg
Fenoxycarb	<0.05 mg/kg
Fenpropathrin	<0.05 mg/kg
Fenvalerate/Esfenvalerate (sum of isomers)	<0.05 mg/kg
Fipronil	<0.05 mg/kg
Fipronil desulfinyl	<0.05 mg/kg
Fipronil sulfone	<0.05 mg/kg
Imazalil	0.022 mg/kg
Imidacloprid	<0.05 mg/kg
Malathion	<0.05 mg/kg
Methiocarb	<0.05 mg/kg
Methiocarb sulfone	<0.05 mg/kg
Methiocarb sulfoxide	<0.05 mg/kg
Methomyl	<0.05 mg/kg
Mevinphos (E- and Z-isomers)	<0.05 mg/kg
Myclobutanil	<0.05 mg/kg
Naled (Dibrom)	<0.05 mg/kg

* This analysis or component is not ISO accredited.

Certificate of Analysis

Elixinol, LLC

Sample Name:	709028	Eurofins Sample:	8822178
Project ID	ELIXINOL-20190913-0086	Receipt Date	13-Sep-2019
PO Number	CVD	Receipt Condition	Ambient temperature
Lot Number	709028	Login Date	13-Sep-2019
Sample Serving Size		Date Started	13-Sep-2019
		Online Order	13484-123E400E

Analysis

Result

Multi-Residue Analysis for hemp products - 60+ compounds

Paclobutrazol	<0.05 mg/kg
Permethrin (sum of isomers)	<0.05 mg/kg
Propoxur	<0.05 mg/kg
Spinetoram (spinosyns J and L)	<0.05 mg/kg
Spinosad (spinosyns A and D)	<0.05 mg/kg
Spirodiclofen	<0.05 mg/kg
Spiromesifen	<0.05 mg/kg
Spiromesifen enol	non-analyzable
Spirotetramat	<0.05 mg/kg
Spiroxamine (2 diastereoisomers)	<0.05 mg/kg
Tebuconazole	<0.05 mg/kg
Thiabendazole	<0.05 mg/kg
Thiabendazole-5-hydroxy-	<0.05 mg/kg
Thiacloprid	<0.05 mg/kg
Trifloxystrobin	<0.05 mg/kg
Metolachlor	<0.05 mg/kg
Pyrethrum (total)	<0.50 mg/kg

Method References

Testing Location

Enterobacteriaceae (Bile-Tolerant Gram-Negative Bacteria) (USPN2021)

Food Integ. Innovation-Madison NE

USP Current revision, Chapter 2021.

To satisfy the requirements of the USP, the Preparatory Test must be completed on each matrix.

**Based on the results of the preparatory test, the detection limit stipulated is adequate for the enumeration of the specified microorganisms.

Glyphosate and AMPA (GLY_AMP_A_S)

Food Integ. Innovation-Greenfield

Monsanto Company Method ME-1466-02, "High Throughput Assay for Glyphosate and AMPA in Raw Agricultural Commodities and Processed Fractions Using LC/MS/MS".

* This analysis or component is not ISO accredited.

Certificate of Analysis

Elixinol, LLC

Method References	Testing Location
-------------------	------------------

Metals Analysis by ICP-MS (ICP_MS_B_S)	Food Integrity Innovation-Boulder
---	--

Methods for the Determination of Metals in Environmental Standards - Supplement 1, EPA-600/R-94-111, May 1994.

"Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Mass Spectrometry", USEPA Method 200.8, Revision 5.1, EMMC Version.

Multi-Residue Analysis for hemp products - 60+ compounds (PEST_HEMP)	Food Integ. Innovation-Greenfield
---	--

Official Methods of Analysis, AOAC Official Method 2007.01, Pesticide Residues in Foods by Acetonitrile Extraction and Partitioning with Magnesium Sulfate, AOAC INTERNATIONAL (modified).

CEN Standard Method EN 15662: Food of plant origin - Determination of pesticide residues using GC-MS and/or LC-MS/MS following acetonitrile extraction/partitioning and clean-up by dispersive SPE - QuEChERS method.

List of the tested pesticides and their limits of quantification (LOQs) are available upon request.

Mycotoxins in Raw Materials (MYCO_REG_S)	Food Integrity Innovation-Madison
---	--

Varga, E., Glauner, T., Koppen, R., Mayer, K., Sulyok, M., Schumacher, R., Krska, R. and Berthiller, F., "Stable isotope dilution assay for the accurate determination of mycotoxins in maize by UHPLC-MS/MS," *Analytical and BioAnalytical Chemistry*, 402:2675-2686 (2012).

Preparatory Testing of Nutritional and Dietary Supplements (USPN_PT)	Food Integ. Innovation-Madison NE
---	--

Certificate of Analysis

Elixinol, LLC

Testing Location(s)

Released on Behalf of Eurofins by

Food Integrity Innovation-Boulder

Ian Laessig - Manager

Eurofins Food Chemistry Testing US, Inc.
2830 Wilderness Pl
Boulder CO 80301
800-675-8375



AT-1816

Food Integ. Innovation-Greenfield

Karelyn Koehn - Manager

Eurofins Food Chemistry Testing US, Inc.
671 S. Meridian Road
Greenfield IN 46140
800-675-8375



2918.06

Food Integrity Innovation-Madison

Edward Ladwig - Director

Eurofins Food Chemistry Testing US, Inc.
3301 Kinsman Blvd
Madison WI 53704
800-675-8375



2918.01

Food Integ. Innovation-Madison NE

Richard Higby - Director

Eurofins Food Chemistry Testing US, Inc.
2102 Wright Street
Madison WI 53704
800-675-8375

These results apply only to the items tested. This certificate of analysis shall not be reproduced, except in its entirety, without the written approval of Eurofins.