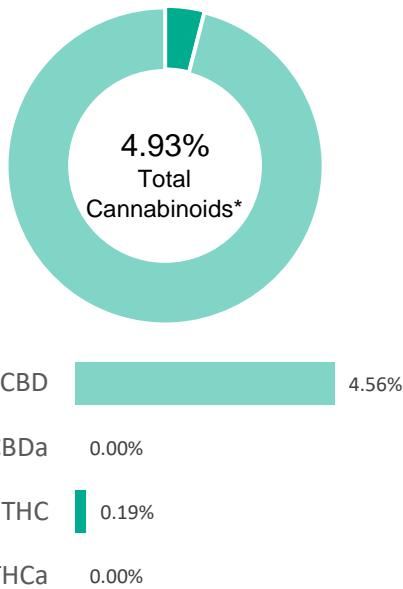


**980020**

<b>Batch ID:</b>	980020	<b>Test ID:</b>	1089094.009
<b>Reported:</b>	19-Aug-2019	<b>Method:</b>	TM14
<b>Type:</b>	Concentrate		
<b>Test:</b>	Potency		

**CANNABINOID PROFILE**


Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.09	0.00	0.0
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.05	0.19	1.9
Cannabidiolic acid (CBDA)	0.09	0.00	0.0
Cannabidiol (CBD)	0.05	4.56	45.6
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.05	0.00	0.0
Cannabinolic Acid (CBNA)	0.12	0.00	0.0
Cannabinol (CBN)	0.05	0.00	0.0
Cannabigerolic acid (CBGA)	0.08	0.00	0.0
Cannabigerol (CBG)	0.04	0.00	0.0
Tetrahydrocannabivarinic Acid (THCVA)	0.08	0.00	0.0
Tetrahydrocannabivarin (THCV)	0.04	0.00	0.0
Cannabidivarinic Acid (CBDVA)	0.08	0.00	0.0
Cannabidivarin (CBDV)	0.05	0.00	0.0
Cannabichromenic Acid (CBCA)	0.07	0.00	0.0
Cannabichromene (CBC)	0.08	0.18	1.8
<b>Total Cannabinoids</b>		<b>4.93</b>	<b>49.30</b>
Total Potential THC**		0.19	1.90
Total Potential CBD**		4.56	45.60

**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.

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

  
**Sam Smith**  
 19-Aug-2019  
 1:56 PM  
 PREPARED BY / DATE

  
**Greg Zimpfer**  
 19-Aug-2019  
 2:03 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

980020

<b>Batch ID:</b>	980020	<b>Test ID:</b>	5180402.016
<b>Reported:</b>	22-Aug-2019	<b>Method:</b>	Concentrate - Test Methods: TM05, TM06
<b>Type:</b>	Concentrate		
<b>Test:</b>	Microbial Contaminants		

## MICROBIAL CONTAMINANTS

Contaminant	Result (CFU/g)*
<b>Total Aerobic Count**</b>	None Detected
<b>Total Coliforms**</b>	None Detected
<b>Total Yeast and Molds**</b>	None Detected
<b><i>E. coli</i></b>	None Detected
<b><i>Salmonella</i></b>	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  
22-Aug-2019  
4:09 PM  
David Green  
22-Aug-2019  
4:27 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.

980020

<b>Batch ID:</b>	980020	<b>Test ID:</b>	1631269.018
<b>Reported:</b>	22-Aug-2019	<b>Method:</b>	TM04
<b>Type:</b>	Concentrate		
<b>Test:</b>	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**

 Sam Smith 22-Aug-2019 2:29 PM	 David Green 22-Aug-2019 2:42 PM
---	--

PREPARED BY / DATE

APPROVED BY / DATE

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Certificate #4329.02

## Certificate of Analysis

### Elixinol, LLC

555 Burbank St. Unit J  
Broomfield Colorado 80020 United States

<b>Sample Name:</b>	<b>980020</b>	<b>Eurofins Sample:</b>	<b>8740752</b>
<b>Project ID</b>	ELIXINOL-20190816-0070	<b>Receipt Date</b>	16-Aug-2019
<b>PO Number</b>	CVD	<b>Receipt Condition</b>	Ambient temperature
<b>Lot Number</b>	980020	<b>Login Date</b>	16-Aug-2019
<b>Sample Serving Size</b>		<b>Date Started</b>	16-Aug-2019
		<b>Online Order</b>	13484-12198ED2

Analysis	Result
<b>Enterobacteriaceae (Bile-Tolerant Gram-Negative Bacteria) *</b>	
Enterobacterial Count	<10 MPN/g
<b>Preparatory Testing of Nutritional and Dietary Supplements *</b>	
Bile-Tolerant Gram-Neg Bacteria Suitability Result	Pass**
<b>Metals Analysis by ICP-MS</b>	
Arsenic	<0.0625 ppm
Cadmium	<0.0156 ppm
Lead	<0.0156 ppm
Mercury	<0.00782 ppm
<b>Glyphosate and AMPA *</b>	
Glyphosate	<100 ng/g
AMPA	<100 ng/g
<b>Multi-Residue Analysis for hemp products - 60+ compounds</b>	
Matrix Type - To Determine Limit of Quantification (LOQ)	High-Fat Food Matrices
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	0.038 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
Chlorfenapyr	<0.05 mg/kg
Chlorpyrifos	<0.05 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

\* This analysis or component is not ISO accredited.

## Certificate of Analysis

### Elixinol, LLC

555 Burbank St. Unit J  
Broomfield Colorado 80020 United States

<b>Sample Name:</b>	<b>980020</b>	<b>Eurofins Sample:</b>	<b>8740752</b>
<b>Project ID</b>	ELIXINOL-20190816-0070	<b>Receipt Date</b>	16-Aug-2019
<b>PO Number</b>	CVD	<b>Receipt Condition</b>	Ambient temperature
<b>Lot Number</b>	980020	<b>Login Date</b>	16-Aug-2019
<b>Sample Serving Size</b>		<b>Date Started</b>	16-Aug-2019
		<b>Online Order</b>	13484-12198ED2

#### Analysis

#### Result

#### Multi-Residue Analysis for hemp products - 60+ compounds

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	<0.05 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
Paclobutrazol	<0.05 mg/kg
Permethrin (sum of isomers)	0.021 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	<0.05 mg/kg

\* This analysis or component is not ISO accredited.

## Certificate of Analysis

### Elixinol, LLC

555 Burbank St. Unit J  
Broomfield Colorado 80020 United States

<b>Sample Name:</b>	<b>980020</b>	<b>Eurofins Sample:</b>	<b>8740752</b>
<b>Project ID</b>	ELIXINOL-20190816-0070	<b>Receipt Date</b>	16-Aug-2019
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<b>Sample Serving Size</b>		<b>Date Started</b>	16-Aug-2019
		<b>Online Order</b>	13484-12198ED2

#### Analysis

#### Result

##### Multi-Residue Analysis for hemp products - 60+ compounds

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".

##### 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.

\* This analysis or component is not ISO accredited.

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## Certificate of Analysis

Elixinol, LLC

555 Burbank St. Unit J  
Broomfield Colorado 80020 United States

### Method References

### Testing Location

#### 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.

#### Preparatory Testing of Nutritional and Dietary Supplements (USPN\_PT)

Food Integ. Innovation-Madison NE

### Testing Location(s)

### Released on Behalf of Eurofins by

#### Food Integrity Innovation-Boulder

Ian Laessig - Manager

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2830 Wilderness Pl  
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AT-1816

#### Food Integ. Innovation-Greenfield

Karelyn Koehn - Manager

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2918.06

#### Food Integ. Innovation-Madison NE

Richard Higby - Director

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