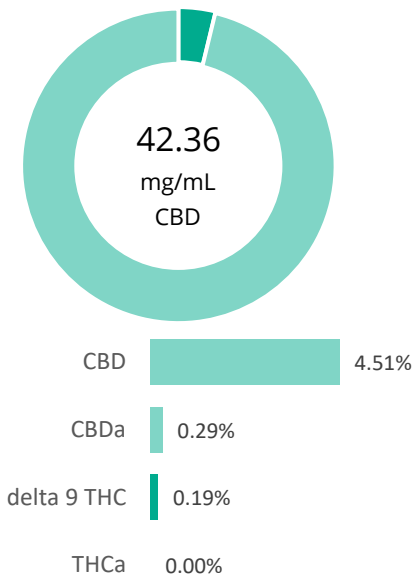


A90001 Tincture

Batch ID:	A90001	Test ID:	T000166954
Type:	Solution	Submitted:	10/01/2021 @ 10:22 AM
Test:	Potency	Started:	10/4/2021
Method:	TM14 (HPLC-DAD)	Reported:	10/5/2021

CANNABINOID PROFILE



Compound	LOQ (mg/mL)	Result (mg/mL)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.58	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.65	1.76	1.9
Cannabidiolic acid (CBDA)	0.47	2.76	2.9
Cannabidiol (CBD)	0.46	42.36	45.1
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.72	ND	ND
Cannabinolic Acid (CBNA)	0.41	ND	ND
Cannabinol (CBN)	0.19	ND	ND
Cannabigerolic acid (CBGA)	0.60	ND	ND
Cannabigerol (CBG)	0.14	1.01	1.1
Tetrahydrocannabivarinic Acid (THCVA)	0.51	ND	ND
Tetrahydrocannabivarin (THCV)	0.13	ND	ND
Cannabidivarinic Acid (CBDVA)	0.20	ND	ND
Cannabidivarin (CBDV)	0.11	0.14	0.1
Cannabichromenic Acid (CBCA)	0.23	ND	ND
Cannabichromene (CBC)	0.25	1.53	1.6
Total Cannabinoids		49.56	52.8
Total Potential THC**		1.76	1.9
Total Potential CBD**		44.78	47.7

NOTES:

Density = 0.939236g/mL

% = % (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.

$$\text{Total THC} = \text{THC} + (\text{THCa} * (0.877)) \text{ and}$$

$$\text{Total CBD} = \text{CBD} + (\text{CBDa} * (0.877))$$

ND = None Detected (Defined by Dynamic Range of the method)

FINAL APPROVAL


 Karen Winternheime
 5-Oct-2021
 4:38 PM

PREPARED BY / DATE


 Rvan Weems
 5-Oct-2021
 4:40 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

A90001 Tincture

Batch ID:	A90001	Test ID:	T000166955
Matrix:	Finished Product	Received:	10/01/2021 @ 10:22 AM
Test:	Microbial Contaminants	Started:	10/1/2021
Method:	TM25 (qPCR) TM24, TM26, TM27, TM28 (Culture Plating)	Reported:	10/4/2021

MICROBIAL CONTAMINANTS

Contaminant	Method	LOD	LLOQ	ULOQ	Result
Total Aerobic Count*	TM-26 Culture Plating	10 ² CFU/g	10 ³ CFU/g	1.5x10 ⁵ CFU/g	None Detected
Total Coliforms*	TM-27 Culture Plating	10 ¹ CFU/g	10 ² CFU/g	1.5x10 ⁴ CFU/g	None Detected
Total Yeast and Molds*	TM-24 Culture Plating	10 ¹ CFU/g	10 ² CFU/g	1.5x10 ⁴ CFU/g	None Detected
<i>E. coli</i>	TM-28 Culture Plating	1 CFU/g	NA	NA	Absent
<i>E. coli</i> (STEC)	TM-25 PCR	1 CFU/g	NA	NA	Absent
<i>Salmonella</i>	TM-25 PCR	1 CFU/g	NA	NA	Absent

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

Examples: 10² = 100 CFU
 10³ = 1,000 CFU
 10⁴ = 10,000 CFU
 10⁵ = 100,000 CFU

NOTES:

Free from visual mold, mildew, and foreign matter

DEFINITIONS:

CFU/g = Colony Forming Units per Gram.

LOD = Limit of Detection

ULOQ = Upper Limit of Quantitation

LLOQ = Lower Limit of Quantitation

FINAL APPROVAL



Carly Bader
 10/4/2021
 11:38:00 AM



Sarah Henning
 10/4/2021
 2:11:00 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 4329.03. Testing associated with this certificate of analysis performed by an external ISO17025 accredited provider.



Certificate #4329.03

Certificate of Analysis

Elixinol, LLC

10170 Church Ranch
Westminster Colorado 80021 United States

Sample Name:	A90001 Brazil 5000mg Tincture	Eurofins Sample:	11011277
Project ID	ELIXINOL-20211001-0030	Receipt Date	04-Oct-2021
PO Number	CVD	Receipt Condition	Ambient temperature
Lot Number	A90001	Login Date	01-Oct-2021
Sample Serving Size	1 mL	Date Started	05-Oct-2021
		Sampled	Sample results apply as received
		Online Order	13484-1619CA8C

Analysis

Result

Elements by ICP Mass Spectrometry

Arsenic	11.2 ppb
Cadmium	<5.00 ppb
Lead	14.8 ppb
Mercury	<5.00 ppb

Enterobacteriaceae Plate Count *

Enterobacteriaceae	<10 CFU/g
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Glyphosate and AMPA

Glyphosate	<100 ng/g
AMPA	<100 ng/g

Analysis

Limit

Result

Pass/Fail

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	20 ppb	<1.00 ppb	Pass
Sum of B1 B2 G1 and G2	20 ppb	<2.00 ppb	Pass

Multi-Residue Analysis for hemp products - 60+ compounds

Abamectin	<0.30 mg/kg
Aldicarb	<0.10 mg/kg
Aldicarb sulfone (Aldoxycarb)	<0.10 mg/kg
Aldicarb sulfoxide	<0.10 mg/kg
Azoxystrobin	<0.10 mg/kg
Bifenazate	<0.10 mg/kg
Bifenthrin	<0.10 mg/kg
Carbaryl	<0.10 mg/kg
Carbofuran	<0.10 mg/kg
Carbofuran-3-hydroxy-	<0.10 mg/kg
Chlorantraniliprole	<0.10 mg/kg
Chlordane, cis-	<0.10 mg/kg

* This analysis or component is not ISO accredited.

Certificate of Analysis

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Westminster Colorado 80021 United States

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Sample Serving Size	1 mL	Date Started	05-Oct-2021
		Sampled	Sample results apply as received
		Online Order	13484-1619CA8C

Analysis	Limit	Result	Pass/Fail
Multi-Residue Analysis for hemp products - 60+ compounds			
Chlordane, trans-		<0.10 mg/kg	
Chlorfenapyr		<0.10 mg/kg	
Chlorpyrifos		<0.10 mg/kg	
Coumaphos		<0.10 mg/kg	
Cyfluthrin		<0.10 mg/kg	
Cypermethrin		<0.10 mg/kg	
Cyproconazole (2 diastereoisomers)		<0.10 mg/kg	
Cyprodinil		<0.10 mg/kg	
Dichlorvos		<0.10 mg/kg	
Diclobutrazol		<0.10 mg/kg	
Dipropetryn		<0.10 mg/kg	
Disulfoton		<0.10 mg/kg	
Endosulfan I (alpha-isomer)		<0.20 mg/kg	
Endosulfan II (beta-isomer)		<0.20 mg/kg	
Endosulfan sulfate		<0.20 mg/kg	
Epoxiconazole		<0.10 mg/kg	
Ethiofencarb		<0.10 mg/kg	
Etofenprox		<0.10 mg/kg	
Etoxazole		<0.10 mg/kg	
Fenoxycarb		<0.10 mg/kg	
Fenpropathrin		<0.10 mg/kg	
Fenvalerate/Esfenvalerate (sum of isomers)		<0.20 mg/kg	
Fipronil		<0.10 mg/kg	
Fipronil desulfinyl		<0.10 mg/kg	
Fipronil sulfone		<0.10 mg/kg	
Imazalil		<0.10 mg/kg	
Imidacloprid		<0.10 mg/kg	
Malathion		<0.10 mg/kg	
Methiocarb		<0.10 mg/kg	
Methiocarb sulfone		<0.10 mg/kg	

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Westminster Colorado 80021 United States

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Analysis	Limit	Result	Pass/Fail
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Multi-Residue Analysis for hemp products - 60+ compounds

Methiocarb sulfoxide		<0.10 mg/kg	
Methomyl		<0.10 mg/kg	
Mevinphos (E- and Z-isomers)		<0.10 mg/kg	
Myclobutanil		<0.10 mg/kg	
Naled (Dibrom)		<0.10 mg/kg	
Paclobutrazol		<0.10 mg/kg	
Permethrin (sum of isomers)		<0.10 mg/kg	
Propoxur		<0.10 mg/kg	
Spinetoram (spinosyns J and L)		<0.10 mg/kg	
Spinosad (spinosyns A and D)		<0.10 mg/kg	
Spirodiclofen		<0.10 mg/kg	
Spiromesifen		<0.10 mg/kg	
Spirotetramat		<0.10 mg/kg	
Spiroxamine (2 diastereoisomers)		<0.10 mg/kg	
Tebuconazole		<0.10 mg/kg	
Thiabendazole		<0.10 mg/kg	
Thiabendazole-5-hydroxy-		<0.10 mg/kg	
Thiacloprid		<0.10 mg/kg	
Trifloxystrobin		<0.10 mg/kg	
Metolachlor		<0.10 mg/kg	
Pyrethrum (total)		<1.0 mg/kg	

Analysis	LOQ	Limit	Result	Pass/Fail
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Residual Solvents - Class 1, 2a, 2b and 3

1,1,1-Trichloroethane	10 ppm	10 ppm	<10 ppm	Pass
1,1-Dichloroethene	8 ppm	8 ppm	<8 ppm	Pass
1,2-Dichloroethane	5 ppm	5 ppm	<5 ppm	Pass
Benzene	2 ppm	2 ppm	<2 ppm	Pass
Carbon Tetrachloride	4 ppm	4 ppm	<4 ppm	Pass
1,2-Dimethoxyethane	100 ppm	100 ppm	<100 ppm	Pass
1,4-Dioxane	380 ppm	380 ppm	<380 ppm	Pass

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Analysis	LOQ	Limit	Result	Pass/Fail
Residual Solvents - Class 1, 2a, 2b and 3				
Acetonitrile	410 ppm	410 ppm	<410 ppm	Pass
Chlorobenzene	360 ppm	360 ppm	<360 ppm	Pass
Chloroform	60 ppm	60 ppm	<60 ppm	Pass
1,2-Dichloroethene	1870 ppm	1870 ppm	<1870 ppm	Pass
Cumene	70 ppm	70 ppm	<70.0 ppm	Pass
Cyclohexane	3880 ppm	3880 ppm	<3880 ppm	Pass
Methanol	3000 ppm	3000 ppm	<3000 ppm	Pass
Methylbutylketone	50 ppm	50 ppm	<50 ppm	Pass
Methylcyclohexane	1180 ppm	1180 ppm	<1180 ppm	Pass
Methylene Chloride	600 ppm	600 ppm	<600 ppm	Pass
n-Hexane	290 ppm	290 ppm	<290 ppm	Pass
Nitromethane	50 ppm	50 ppm	<50 ppm	Pass
Pyridine	200 ppm	200 ppm	<200 ppm	Pass
Tetrahydrofuran	720 ppm	720 ppm	<720 ppm	Pass
Tetralin	96 ppm	96 ppm	<96.0 ppm	Pass
Toluene	890 ppm	890 ppm	<890 ppm	Pass
Trichloroethylene	80 ppm	80 ppm	<80 ppm	Pass
Xylenes(O,M,P + EB)	2170 ppm	2170 ppm	<2170 ppm	Pass
1-Butanol	200 ppm	5000 ppm	<200 ppm	Pass
1-Pentanol	200 ppm	5000 ppm	<200 ppm	Pass
1-Propanol	200 ppm	5000 ppm	<200 ppm	Pass
2-Butanol	200 ppm	5000 ppm	<200 ppm	Pass
Methylethylketone	200 ppm	5000 ppm	<200 ppm	Pass
3-Methyl-1-butanol	200 ppm	5000 ppm	<200 ppm	Pass
Acetic Acid Butyl Ester	200 ppm	5000 ppm	<200 ppm	Pass
Acetone	200 ppm	5000 ppm	<200 ppm	Pass
Anisole	200 ppm	5000 ppm	<200 ppm	Pass
Diethyl Ether	200 ppm	5000 ppm	<200 ppm	Pass
Ethanol	200 ppm	5000 ppm	<200 ppm	Pass

* This analysis or component is not ISO accredited.

Certificate of Analysis

Elixinol, LLC

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Westminster Colorado 80021 United States

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Analysis	LOQ	Limit	Result	Pass/Fail
Residual Solvents - Class 1, 2a, 2b and 3				
Ethyl Acetate	200 ppm	5000 ppm	<200 ppm	Pass
Ethyl Formate	500 ppm	5000 ppm	<500 ppm	Pass
2-Methyl-1-propanol	200 ppm	5000 ppm	<200 ppm	Pass
Isobutyl Acetate	200 ppm	5000 ppm	<200 ppm	Pass
2-Propanol	200 ppm	5000 ppm	<200 ppm	Pass
Isopropyl Acetate	200 ppm	5000 ppm	<200 ppm	Pass
Methyl Acetate	200 ppm	5000 ppm	<200 ppm	Pass
Methylisobutylketone	200 ppm	5000 ppm	<200 ppm	Pass
tert-Butylmethyl Ether	200 ppm	5000 ppm	<200 ppm	Pass
n-Heptane	200 ppm	5000 ppm	<200 ppm	Pass
n-Pentane	200 ppm	5000 ppm	<200 ppm	Pass
Propyl Acetate	200 ppm	5000 ppm	<200 ppm	Pass
Total Class 3 Residual Solvents	5000 ppm	5000 ppm	<5000 ppm	Pass

Method References

Testing Location

Elements by ICP Mass Spectrometry (ICP_MS_S)

Food Integrity Innovation-Madison

6304 Ronald Reagan Ave Madison, WI 53704 USA

Official Methods of Analysis, Method 2011.19 and 993.14, AOAC INTERNATIONAL, (Modified).

Paquette, L.H., Szabo, A., Thompson, J.J., "Simultaneous Determination of Chromium, Selenium, and Molybdenum in Nutritional Products by Inductively Coupled Plasma/Mass Spectrometry: Single-Laboratory Validation," Journal of AOAC International, 94(4): 1240 - 1252 (2011).

Enterobacteriaceae Plate Count (EBPC)

EML New Berlin

2345 S 170th St New Berlin, WI 53151 USA

Compendium of Methods for the Microbiological Examination of Foods: Enterobacteriaceae, Coliforms, and Escherichia coli as Quality and Safety Indicators, Chapter 8, 4th Edition, 2001.

* This analysis or component is not ISO accredited.

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Certificate of Analysis

Elixinol, LLC

10170 Church Ranch
Westminster Colorado 80021 United States

Method References

Testing Location

Glyphosate and AMPA (GLY_AMP_A_S)

Food Integrity Innovation-Madison

6304 Ronald Reagan Ave Madison, WI 53704 USA

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

Multi-Residue Analysis for hemp products - 60+ compounds (PEST_HEMP)

Food Integrity Innovation-Madison

6304 Ronald Reagan Ave Madison, WI 53704 USA

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

6304 Ronald Reagan Ave Madison, WI 53704 USA

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).

Residual Solvents - Class 1, 2a, 2b and 3 (USPR_S)

Food Integrity Innovation-Madison

6304 Ronald Reagan Ave Madison, WI 53704 USA

United States Pharmacopeia, 38nd Rev. - National Formulary 33th Ed., Method <467>, USP Convention, Inc., Rockville, MD (2015). (Modified).

Testing Location(s)

Released on Behalf of Eurofins by

Food Integrity Innovation-Madison

Eurofins Food Chemistry Testing Madison, Inc.
6304 Ronald Reagan Ave
Madison WI 53704
800-675-8375

Edward Ladwig - President Eurofins Food Chemistry Testing Madison



2918.01

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