

CERTIFICATE OF ANALYSIS

Prepared for:
Elixinol LLC

10170 Church Ranch Way, Ste 400
Westminster, CO USA 80021

Natural 4000mg Tincture - 220088

Batch ID or Lot Number: 220088	Test: Potency	Reported: 11Apr2022	USDA License: N/A
Matrix: Solution	Test ID: T000201699	Started: 08Apr2022	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis	Received: 07Apr2022	Status: N/A

Cannabinoids

	LOD (mg/mL)	LOQ (mg/mL)	Result (mg/mL)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.063	0.215	1.236	1.30	Density = 0.950072g/mL
Cannabichromenic Acid (CBCA)	0.057	0.197	ND	ND	
Cannabidiol (CBD)	0.165	0.539	38.404	40.42	
Cannabidiolic Acid (CBDA)	0.169	0.552	ND	ND	
Cannabidivarin (CBDV)	0.039	0.127	0.249	0.26	
Cannabidivarinic Acid (CBDVA)	0.071	0.230	ND	ND	
Cannabigerol (CBG)	0.036	0.122	0.379	0.40	
Cannabigerolic Acid (CBGA)	0.148	0.511	ND	ND	
Cannabinol (CBN)	0.046	0.159	0.086*	0.09*	
Cannabinolic Acid (CBNA)	0.101	0.349	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.177	0.609	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.161	0.553	1.309	1.38	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.142	0.490	ND	ND	
Tetrahydrocannabivarin (THCV)	0.032	0.111	0.034*	0.04*	
Tetrahydrocannabivarinic Acid (THCVA)	0.125	0.432	ND	ND	
Total Cannabinoids			41.697	43.89	
Total Potential THC			1.309	1.38	
Total Potential CBD			38.404	40.42	

Final Approval



Hannah Wright
11Apr2022
04:55:00 PM MDT

PREPARED BY / DATE



Ryan Weems
11Apr2022
05:02:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/c30346d0-75a6-4abe-9131-888014dd754d>

Definitions

% = % (w/w) = Percent (weight of analyte / weight of product). ND = None Detected (defined by dynamic range of the method).
Total Potential Delta 9-THC or CBD is calculated to take into account the loss of a carboxyl group during decarboxylation step, using the following formulas: Total Potential Delta 9-THC = Delta 9-THC + (Delta 9-THCa *(0.877)) and Total CBD = CBD + (CBDA *(0.877)).

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.



Cert #4329.02

CDPHE Certified

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CERTIFICATE OF ANALYSIS

Prepared for:
Elixinol LLC

10170 Church Ranch Way, Ste 400
Westminster, CO USA 80021

Natural 4000mg Tincture - 220088

Batch ID or Lot Number: 220088	Test: Residual Solvents	Reported: 08Apr2022	USDA License: N/A
Matrix: Concentrate	Test ID: T000201703	Started: 08Apr2022	Sampler ID: N/A
	Method(s): TM04 (GC-MS): Residual Solvents	Received: 07Apr2022	Status: N/A

Residual Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	90 - 1802	ND	
Butanes (Isobutane, n-Butane)	178 - 3560	ND	
Methanol	57 - 1147	ND	
Pentane	93 - 1853	ND	
Ethanol	82 - 1644	ND	
Acetone	95 - 1898	ND	
Isopropyl Alcohol	90 - 1805	ND	
Hexane	6 - 121	ND	
Ethyl Acetate	94 - 1875	ND	
Benzene	0.2 - 3.7	ND	
Heptanes	94 - 1888	ND	
Toluene	16 - 319	ND	
Xylenes (m,p,o-Xylenes)	110 - 2208	ND	

Final Approval



Karen Winternheimer
08Apr2022
04:05:00 PM MDT

PREPARED BY / DATE



Ryan Weems
08Apr2022
04:08:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/5c709863-b0a7-4ff0-9593-1cc3f8987723>

Definitions

ND = None Detected (defined by dynamic range of the method)
Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range

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CDPHE Certified

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CERTIFICATE OF ANALYSIS

Prepared for:
Elixinol LLC


10170 Church Ranch Way, Ste 400
Westminster, CO USA 80021

Natural 4000mg Tincture - 220088

Batch ID or Lot Number: 220088	Test: Heavy Metals	Reported: 13Apr2022	USDA License: NA
Matrix: Unit Co	Test ID: T000201702	Started: 12Apr2022	Sampler ID: NA
	Method(s): TM19 (ICP-MS): Heavy Metals	Received: 07Apr2022	Status: NA

Heavy Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.04 - 4.46	ND	
Cadmium	0.04 - 4.47	ND	
Mercury	0.04 - 4.46	ND	
Lead	0.04 - 4.27	ND	

Final Approval



Ryan Weems
13Apr2022
02:14:00 PM MDT

PREPARED BY / DATE



Sam Smith
13Apr2022
02:17:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/7234494d-6ad4-4ff3-80dd-35bcf0558e63>

Definitions

ND = None Detected (defined by dynamic range of the method)
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Cert #4329.02

CDPHE Certified
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CERTIFICATE OF ANALYSIS

 Prepared for:
Elixinol LLC


 10170 Church Ranch Way, Ste 400
 Westminster, CO USA 80021

Natural 4000mg Tincture - 220088

Batch ID or Lot Number: 220088	Test: Microbial Contaminants	Reported: 11Apr2022	USDA License: N/A
Matrix: Finished Product	Test ID: T000201701	Started: 07Apr2022	Sampler ID: N/A
	Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)	Received: 07Apr2022	Status: N/A

Microbial
Contaminants

	Method	LOD	Quantitation Range	Result	Notes
STEC	TM25: PCR	10 ⁰ CFU/25g	NA	Absent	Free from visual mold, mildew, and foreign matter
<i>Salmonella</i>	TM25: PCR	10 ⁰ CFU/25g	NA	Absent	
Total Yeast and Mold*	TM24: Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴	None Detected	
Total Aerobic Count*	TM26: Culture Plating	10 ² CFU/g	1.0x10 ³ - 1.5x10 ⁵	None Detected	
Total Coliforms*	TM27: Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴	None Detected	

Final Approval


 Eden Thompson-Wright
 10Apr2022
 12:55:00 PM MDT



 Brett Hudson
 11Apr2022
 02:32:00 PM MDT


PREPARED BY / DATE

APPROVED BY / DATE

<https://results.botanacor.com/api/v1/coas/uuid/debf321c-f826-4b31-ad20-4e74736bc65d>
Definitions

* 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
 CFU/g = Colony Forming Units per Gram, LOD = Limit of Detection
 ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation
 STEC = Shiga Toxin-Producing E. coli

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Prepared for:
Elixinol LLC

10170 Church Ranch Way, Ste 400
Westminster, CO USA 80021

Natural 4000mg Tincture - 220088

Batch ID or Lot Number: 220088	Test: Pesticides	Reported: 13Apr2022	USDA License: NA
Matrix: Concentrate	Test ID: T000201700	Started: 12Apr2022	Sampler ID: NA
	Method(s): TM17 (LC-QQ LC MS/MS)	Received: 07Apr2022	Status: NA

Pesticides	Dynamic Range (ppb)	Result (ppb)	Pesticides	Dynamic Range (ppb)	Result (ppb)
Abamectin	289 - 2822	ND	Malathion	283 - 2716	ND
Acephate	44 - 2813	ND	Metalaxyl	44 - 2711	ND
Acetamiprid	40 - 2789	ND	Methiocarb	39 - 2823	ND
Azoxystrobin	44 - 2675	ND	Methomyl	42 - 2808	ND
Bifenazate	41 - 2692	ND	MGK 264 1	217 - 1555	ND
Boscalid	39 - 2815	ND	MGK 264 2	114 - 1142	ND
Carbaryl	37 - 2722	ND	Myclobutanil	39 - 2806	ND
Carbofuran	43 - 2701	ND	Naled	45 - 2751	ND
Chlorantraniliprole	54 - 2785	ND	Oxamyl	40 - 2804	ND
Chlorpyrifos	41 - 2794	ND	Pacllobutrazol	44 - 2722	ND
Clofentezine	287 - 2705	ND	Permethrin	270 - 2760	ND
Diazinon	269 - 2762	ND	Phosmet	44 - 2703	ND
Dichlorvos	323 - 2716	ND	Prophos	265 - 2815	ND
Dimethoate	39 - 2792	ND	Propoxur	41 - 2710	ND
E-Fenpyroximate	276 - 2768	ND	Pyridaben	268 - 2808	ND
Etofenprox	40 - 2758	ND	Spinosad A	34 - 2199	ND
Etoxazole	281 - 2762	ND	Spinosad D	46 - 502	ND
Fenoxycarb	43 - 2714	ND	Spiromesifen	268 - 2813	ND
Fipronil	71 - 2669	ND	Spirotetramat	273 - 2673	ND
Flonicamid	46 - 2804	ND	Spiroxamine 1	17 - 1185	ND
Fludioxonil	276 - 2806	ND	Spiroxamine 2	23 - 1583	ND
Hexythiazox	40 - 2779	ND	Tebuconazole	264 - 2711	ND
Imazalil	268 - 2724	ND	Thiacloprid	37 - 2782	ND
Imidacloprid	47 - 2779	ND	Thiamethoxam	37 - 2798	ND
Kresoxim-methyl	42 - 2770	ND	Trifloxystrobin	44 - 2712	ND

Final Approval


 Sam Smith
 13Apr2022
 03:53:00 PM MDT

PREPARED BY / DATE


 Daniel Weidensaul
 13Apr2022
 03:58:00 PM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uiid/05897b72-5efd-4fdc-946f-419c02befdb9>

Definitions

ND = None Detected (defined by dynamic range of the method)
 Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range
 ppb = Parts Per Billion

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CERTIFICATE OF ANALYSIS

Prepared for:
Elixinol LLC

10170 Church Ranch Way, Ste 400
Westminster, CO USA 80021

Natural 4000mg Tincture - 220088

Batch ID or Lot Number: 220088	Test: Mycotoxins	Reported: 11Apr2022	USDA License: N/A
Matrix: Concentrate	Test ID: T000201705	Started: 07Apr2022	Sampler ID: N/A
	Method(s): TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 07Apr2022	Status: N/A

Mycotoxins	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	4.18 - 139.74	ND	N/A
Aflatoxin B1	1.16 - 35.86	ND	
Aflatoxin B2	1.23 - 35.43	ND	
Aflatoxin G1	1.13 - 35.43	ND	
Aflatoxin G2	1.23 - 34.40	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval



Hannah Wright
11Apr2022
11:54:00 AM MDT

PREPARED BY / DATE



Ryan Weems
11Apr2022
11:59:00 AM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/7d408a2c-76fa-441c-be99-5192f1d5dc90>

Definitions

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Cert #4329.02

CDPHE Certified
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Certificate of Analysis

Elixinol, LLC

10170 Church Ranch
Westminster Colorado 80021

Sample Name:	Natural 4000mg Tincture - 220088	Eurofins Sample:	11624210
Project ID	ELIXINOL-20220406-0012	Receipt Date	11-Apr-2022
PO Number	CVD	Receipt Condition	Ambient temperature
Lot Number	220088	Login Date	06-Apr-2022
Sample Serving Size	1 mL	Date Started	13-Apr-2022
		Sampled	Sample results apply as received
		Number Composited	2
		Online Order	13484-17104CC2

Analysis	Result
Enterobacteriaceae Plate Count *	
Enterobacteriaceae	<10 CFU/g
Glyphosate and AMPA	
Glyphosate	<100 ng/g
AMPA	<100 ng/g

Method References	Testing Location
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Enterobacteriaceae Plate Count (EBPC)	EML New Berlin 2345 S 170th St New Berlin, WI 53151 USA
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Compendium of Methods for the Microbiological Examination of Foods: Enterobacteriaceae, Coliforms, and Escherichia coli as Quality and Safety Indicators, Chapter 8, 4th Edition, 2001.

Glyphosate and AMPA (GLY_AMPAS)	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".

Testing Location(s)	Released on Behalf of Eurofins by
---------------------	-----------------------------------

Food Integrity Innovation-Madison	Edward Ladwig - President Eurofins Food Chemistry Testing Madison
--	--

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



2918.01

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. Measurement uncertainty for individual analyses can be obtained upon request.

* This analysis or component is not ISO accredited.

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