

Prepared for:

Cinnamint 4000mg Tincture - 210070
Elixinol LLC

Batch ID or Lot Number: 210070	Test: Potency	Reported: 11/9/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
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Matrix: Solution	Test ID: T000174237	Started: 11/9/21	USDA License: N/A
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Status: N/A	Method: TM14 (HPLC-DAD): Potency - Standard Cannabinoid Analysis (Colorado Panel)	Received: 11/03/2021 @ 02:16 PM	Sampler ID: N/A
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CANNABINOID PROFILE

Compound	LOD (mg/mL)	LOQ (mg/mL)	Result (mg/mL)	Result (mg/g)	Notes
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.138	0.425	ND	ND	Density = 0.943061g/mL
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.156	0.479	1.871	1.98	
Cannabidiolic acid (CBDA)	0.170	0.520	2.023	2.15	
Cannabidiol (CBD)	0.165	0.507	44.159	46.83	
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.171	0.528	ND	ND	
Cannabinolic Acid (CBNA)	0.098	0.302	ND	ND	
Cannabinol (CBN)	0.045	0.138	0.142	0.15	
Cannabigerolic acid (CBGA)	0.144	0.443	ND	ND	
Cannabigerol (CBG)	0.034	0.106	0.745	0.79	
Tetrahydrocannabivarinic Acid (THCVA)	0.122	0.374	ND	ND	
Tetrahydrocannabivarin (THCV)	0.031	0.096	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.071	0.217	ND	ND	
Cannabidivarin (CBDV)	0.039	0.120	0.103*	0.11*	
Cannabichromenic Acid (CBCA)	0.055	0.171	0.091*	0.1*	
Cannabichromene (CBC)	0.061	0.187	1.422	1.51	
Total Cannabinoids			50.556	53.61	
Total Potential THC**			1.871	1.98	
Total Potential CBD**			45.933	48.71	



 Ryan Weems
 09-Nov-2021
 07:45 PM



 Daniel Weidensaul
 9-Nov-21
 7:50 PM

PREPARED BY / DATE

APPROVED BY / DATE

Definitions

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

* Indicates a value below the Limit of Quantitation (LOQ) and above the Limit of Detection (LOD).

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

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

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

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

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

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CDPHE Certified



Certificate #4329.02

Cinnamint 4000mg Tincture - 210070

Batch ID:	210070	Test ID:	T000174242
Type:	Concentrate	Submitted:	11/03/2021 @ 02:16 PM
Test:	Density	Started:	11/5/2021
Method:	TL-SOP-0034 (Gravimetric)	Reported:	11/8/2021


DENSITY

Value	Units
0.943	g/mL

NOTES:


Free from visual mold, mildew, and foreign matter

FINAL APPROVAL



Hannah Wright
8-Nov-2021
11:30 AM

PREPARED BY / DATE



Rvan Weems
8-Nov-2021
1:25 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.


Prepared for:


Cinnamint 4000mg Tincture - 210070
Elixinol LLC

Batch ID or Lot Number: 210070	Test: Pesticides	Reported: 11/9/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
Matrix: Concentrate	Test ID: T000174238	Started: 11/8/21	USDA License: N/A
Status: N/A	Method: TM17(LC-QQQ LC MS/MS):	Received: 11/03/2021 @ 02:16 PM	Sampler ID: N/A

PESTICIDE DETERMINATION

Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)
Acephate	54	ND	Fenoxycarb	56	ND	Paclobutrazol	58	ND
Acetamiprid	60	ND	Fipronil	92	ND	Permethrin	297	ND
Avermectin	341	ND	Flonicamid	61	ND	Phosmet	57	ND
Azoxystrobin	57	ND	Fludioxonil	326	ND	Prophos	278	ND
Bifenazate	54	ND	Hexythiazox	55	ND	Propoxur	55	ND
Boscalid	60	ND	Imazalil	284	ND	Pyridaben	303	ND
Carbaryl	54	ND	Imidacloprid	62	ND	Spinosad A	43	ND
Carbofuran	57	ND	Kresoxim-methyl	150	ND	Spinosad D	56	ND
Chlorantraniliprole	67	ND	Malathion	296	ND	Spiromesifen	301	ND
Chlorpyrifos	500	ND	Metalaxyl	55	ND	Spirotetramat	307	ND
Clofentezine	290	ND	Methiocarb	60	ND	Spiroxamine 1	25	ND
Diazinon	305	ND	Methomyl	56	ND	Spiroxamine 2	32	ND
Dichlorvos	290	ND	MGK 264 1	172	ND	Tebuconazole	300	ND
Dimethoate	57	ND	MGK 264 2	125	ND	Thiacloprid	57	ND
E-Fenpyroximate	250	ND	Myclobutanil	48	ND	Thiamethoxam	58	ND
Etofenprox	58	ND	Naled	57	ND	Trifloxystrobin	56	ND
Etoxazole	307	ND	Oxamyl	1500	ND			


 Daniel Weidensaul
 11/9/2021
 3:30:00 PM


 Sam Smith
 11/9/2021
 3:36:00 PM

PREPARED BY / DATE

APPROVED BY / DATE

Definitions

LOQ = Limit of Quantification
 ppb = Parts per Billion

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.




Certificate #4329.02


Prepared for:
Elixinol LLC
Cinnamint 4000mg Tincture - 210070

Batch ID or Lot Number: 210070	Test: Metals	Reported: 11/10/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
Matrix: Unit Co	Test ID: T000174240	Started: 11/9/21	USDA License: N/A
Status: N/A	Method: TM19 (ICP-MS): Heavy Metals (Colorado Panel)	Received: 11/03/2021 @ 02:16 PM	Sampler ID: N/A

HEAVY METALS DETERMINATION

Compound	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.040 - 4.01	ND	
Cadmium	0.040 - 4.04	ND	
Mercury	0.041 - 4.11	ND	
Lead	0.040 - 4.04	ND	


 Sam Smith
 10-Nov-21
 10:17 AM


 Ryan Weems
 10-Nov-21
 10:20 AM

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APPROVED BY / DATE

Definitions

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

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Prepared for:

Cinnamint 4000mg Tincture - 210070
Elixinol LLC

Batch ID or Lot Number: 210070	Test: Residual Solvents	Reported: 11/5/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
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Matrix: N/A	Test ID: T000174241	Started: 11/5/21	USDA License: N/A
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Status: N/A	Methods: TM04 (GC-MS): Residual Solvents (Colorado Panel)	Received: 11/03/2021 @ 02:16 PM	Sampler ID: N/A
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RESIDUAL SOLVENTS DETERMINATION

Solvent	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	76 - 1512	*ND	
Butanes (Isobutane, n-Butane)	145 - 2890	*ND	
Methanol	64 - 1289	*ND	
Pentane	86 - 1717	*ND	
Ethanol	101 - 2013	*ND	
Acetone	100 - 1993	*ND	
Isopropyl Alcohol	110 - 2200	*ND	
Hexane	6 - 112	*ND	
Ethyl Acetate	103 - 2062	*ND	
Benzene	0.2 - 4.2	*ND	
Heptanes	97 - 1938	*ND	
Toluene	19 - 379	*ND	
Xylenes (m,p,o-Xylenes)	145 - 2906	*ND	


 Karen Winternheimer
 5-Nov-21
 3:21 PM


 Sam Smith
 5-Nov-21
 3:26 PM

PREPARED BY / DATE

APPROVED BY / DATE

Definitions

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

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Certificate #4329.02

Prepared for:

Cinnamint 4000mg Tincture - 210070
Elixinol LLC


Batch ID or Lot Number: 210070	Test: Microbial Contaminants	Reported: 11/8/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
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Matrix: Finished Product	Test ID: T000174239	Started: 11/4/21	USDA License: N/A
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Status: N/A	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial (Colorado Panel)	Received: 11/03/2021 @ 02:16 PM	Sampler ID: N/A
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MICROBIAL CONTAMINANTS DETERMINATION

Contaminant	Method	LOD	LLOQ	ULOQ	Result	Notes
Total Aerobic Count*	TM-26, Culture Plating	10 ² CFU/g	10 ³ CFU/g	1.5x10 ⁵ CFU/g	None Detected	Free from visual mold, mildew, and foreign matter
Total Coliforms*	TM-27, Culture Plating	10 ¹ CFU/g	10 ² CFU/g	1.5x10 ⁴ CFU/g	None Detected	
Total Yeast and Mold*	TM-24, Culture Plating	10 ¹ CFU/g	10 ² CFU/g	1.5x10 ⁴ CFU/g	None Detected	
E. coli (STEC)	TM-25, PCR	1 CFU/25 g	NA	NA	Absent	
Salmonella	TM-25, PCR	1 CFU/25 g	NA	NA	Absent	


 Brianne Maillot
 11/8/2021
 3:34:00 PM

PREPARED BY / DATE


 Brett Hudson
 11/8/2021
 5:07:00 PM

APPROVED BY / DATE

Definitions

LOD = Limit of Detection | LLOQ = Lower Limit of Quantitation | ULOQ = Upper Limit of Quantitation

 CFU/g = Colony Forming Units per Gram | STEC = Shiga Toxin-Producing *E. coli*

* 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

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Certificate #4329.02


Prepared for:

Cinnamint 4000mg Tincture - 210070
Elixinol LLC


Batch ID or Lot Number: 210070	Test: Mycotoxins	Reported: 11/9/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
Matrix: Concentrate	Test ID: T000174243	Started: 11/8/21	USDA License: N/A
Status: N/A	Method: TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins (Colorado Panel)	Received: 11/03/2021 @ 02:16 PM	Sampler ID: N/A

MYCOTOXIN DETERMINATION

Compound	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	0.9 - 133.9	ND	N/A
Aflatoxin B1	1.5 - 34.2	ND	
Aflatoxin B2	1.2 - 33.8	ND	
Aflatoxin G1	1.2 - 33.5	ND	
Aflatoxin G2	1.1 - 33.3	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	


 Ryan Weems
 9-Nov-21
 12:23 PM

PREPARED BY / DATE


 Sam Smith
 9-Nov-21
 12:29 PM

APPROVED BY / DATE

Definitions

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Certificate #4329.02

Certificate of Analysis

Elixinol, LLC

10170 Church Ranch
Westminster Colorado 80021 United States

Sample Name:	Cinnamint 4000mg Tincture - 210070	Eurofins Sample:	11111618
Project ID	ELIXINOL-20211102-0035	Receipt Date	03-Nov-2021
PO Number	cvd	Receipt Condition	Ambient temperature
Lot Number	210070	Login Date	02-Nov-2021
Sample Serving Size	1 mL	Date Started	06-Nov-2021
		Sampled	Sample results apply as received
		Online Order	13484-16442C54

Analysis

Result

Enterobacteriaceae Plate Count *

Enterobacteriaceae

<10 CFU/g

Glyphosate and AMPA

Glyphosate

<100 ng/g

AMPA

<100 ng/g

Method References

Testing Location

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.

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.

Printed: 12-Nov-2021 1:12 pm

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