

Prepared for:

300mg Liposome Citrust Twist - 210084

Elixinol LLC


Batch ID or Lot Number: 210084	Test: Potency	Reported: 12/3/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
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Matrix: Solution	Test ID: T000179398	Started: 12/2/21	USDA License: N/A
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Status: N/A	Method: TM14 (HPLC-DAD): Potency - Standard Cannabinoid Analysis (Colorado Panel)	Received: 12/01/2021 @ 10:57 AM	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)	0.169	0.504	ND	ND	Density = 1.00183g/mL
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.191	0.568	ND	ND	
Cannabidiolic acid (CBDA)	0.185	0.579	ND	ND	
Cannabidiol (CBD)	0.180	0.565	13.420	13.40	
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.210	0.626	ND	ND	
Cannabinolic Acid (CBNA)	0.120	0.358	ND	ND	
Cannabinol (CBN)	0.055	0.164	ND	ND	
Cannabigerolic acid (CBGA)	0.176	0.525	ND	ND	
Cannabigerol (CBG)	0.042	0.126	0.338	0.34	
Tetrahydrocannabivarinic Acid (THCVA)	0.149	0.444	ND	ND	
Tetrahydrocannabivarin (THCV)	0.038	0.114	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.077	0.242	ND	ND	
Cannabidivarin (CBDV)	0.043	0.134	ND	ND	
Cannabichromenic Acid (CBCA)	0.068	0.202	ND	ND	
Cannabichromene (CBC)	0.074	0.221	ND	ND	
Total Cannabinoids			13.758	13.73	
Total Potential THC**			ND	ND	
Total Potential CBD**			13.420	13.40	

 Jacob Miller
03-Dec-2021
03:50 PM

 Karen Winternheimer
3-Dec-21
4:38 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.

Total THC = THC + (THCa *(0.877)) and

Total CBD = CBD + (CBDa *(0.877))

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

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

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.



CDPHE Certified



Certificate #4329.02

300mg Liposome Citrust Twist - 210084


Batch ID:	210084	Test ID:	T000179403
Type:	Concentrate	Submitted:	12/01/2021 @ 10:57 AM
Test:	Density	Started:	12/2/2021
Method:	TL-SOP-0034 (Gravimetric)	Reported:	12/2/2021

DENSITY


Value	Units
1.002	g/mL

NOTES:

Free from visual mold, mildew, and foreign matter

FINAL APPROVAL
Jacob Miller
2-Dec-2021
10:38 AM

PREPARED BY / DATE


Rvan Weems
2-Dec-2021
6:37 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:

300mg Liposome Citrust Twist - 210084
Elixinol LLC

Batch ID or Lot Number: 210084	Test: Pesticides	Reported: 12/7/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
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Matrix: Concentrate	Test ID: T000179399	Started: 12/5/21	USDA License: N/A
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Status: N/A	Method: TM17(LC-QQQ LC MS/MS):	Received: 12/01/2021 @ 10:57 AM	Sampler ID: N/A
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PESTICIDE DETERMINATION

Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)
Acephate	41	ND	Fenoxycarb	40	ND	Paclobutrazol	41	ND
Acetamiprid	41	ND	Fipronil	45	ND	Permethrin	258	ND
Avermectin	295	ND	Flonicamid	45	ND	Phosmet	43	ND
Azoxystrobin	42	ND	Fludioxonil	279	ND	Prophos	279	ND
Bifenazate	38	ND	Hexythiazox	37	ND	Propoxur	41	ND
Boscalid	46	ND	Imazalil	263	ND	Pyridaben	284	ND
Carbaryl	37	ND	Imidacloprid	44	ND	Spinosad A	43	ND
Carbofuran	42	ND	Kresoxim-methyl	150	ND	Spinosad D	282	ND
Chlorantraniliprole	55	ND	Malathion	285	ND	Spiromesifen	278	ND
Chlorpyrifos	500	ND	Metalaxyl	40	ND	Spirotetramat	306	ND
Clofentezine	282	ND	Methiocarb	38	ND	Spiroxamine 1	36	ND
Diazinon	280	ND	Methomyl	43	ND	Spiroxamine 2	35	ND
Dichlorvos	290	ND	MGK 264 1	356	ND	Tebuconazole	302	ND
Dimethoate	42	ND	MGK 264 2	277	ND	Thiacloprid	40	ND
E-Fenpyroximate	293	ND	Myclobutanil	42	ND	Thiamethoxam	37	ND
Etofenprox	40	ND	Naled	42	ND	Trifloxystrobin	41	ND
Etoxazole	307	ND	Oxamyl	1500	ND			


 Karen Winternheimer
 12/7/2021
 4:02:00 PM


 Sam Smith
 12/7/2021
 4:14:00 PM

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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.



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Prepared for:


300mg Liposome Citrust Twist - 210084

Elixinol LLC


Batch ID or Lot Number: 210084	Test: Metals	Reported: 12/7/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
Matrix: Unit Co	Test ID: T000179401	Started: 12/6/21	USDA License: N/A
Status: N/A	Method: TM19 (ICP-MS): Heavy Metals (Colorado Panel)	Received: 12/01/2021 @ 10:57 AM	Sampler ID: N/A

HEAVY METALS DETERMINATION

Compound	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.041 - 4.14	ND	
Cadmium	0.043 - 4.35	ND	
Mercury	0.045 - 4.53	ND	
Lead	0.045 - 4.52	ND	

 Ryan Weems
7-Dec-21
1:19 PM

PREPARED BY / DATE

 Daniel Weidensaul
7-Dec-21
1:24 PM

APPROVED BY / DATE

Definitions

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

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Prepared for:

300mg Liposome Citrust Twist - 210084

Elixinol LLC

Batch ID or Lot Number: 210084	Test: Residual Solvents	Reported: 12/3/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
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Matrix: N/A	Test ID: T000179402	Started: 12/3/21	USDA License: N/A
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Status: N/A	Methods: TM04 (GC-MS): Residual Solvents (Colorado Panel)	Received: 12/01/2021 @ 10:57 AM	Sampler ID: N/A
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RESIDUAL SOLVENTS DETERMINATION

Solvent	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	107 - 2135	*ND	
Butanes (Isobutane, n-Butane)	190 - 3803	*ND	
Methanol	65 - 1308	*ND	
Pentane	94 - 1877	*ND	
Ethanol	88 - 1769	*ND	
Acetone	103 - 2066	*ND	
Isopropyl Alcohol	106 - 2129	*ND	
Hexane	7 - 131	*ND	
Ethyl Acetate	112 - 2245	*ND	
Benzene	0.2 - 4.6	*ND	
Heptanes	102 - 2039	*ND	
Toluene	19 - 389	*ND	
Xylenes (m,p,o-Xylenes)	137 - 2739	*ND	

 Daniel Weidensaul
3-Dec-21
4:49 PM

 Ryan Weems
3-Dec-21
4:52 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:

300mg Liposome Citrust Twist - 210084
Elixinol LLC


Batch ID or Lot Number: 210084	Test: Microbial Contaminants	Reported: 12/4/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
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Matrix: Finished Product	Test ID: t000179400	Started: 12/1/21	USDA License: N/A
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Status: N/A	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial (Colorado Panel)	Received: 12/01/2021 @ 10:57 AM	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	


 Robert Belfon
 12/4/2021
 1:13:00 PM


 Courtney Richards
 12/4/2021
 11:41:00 PM

PREPARED BY / DATE

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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Elixinol LLC


Batch ID or Lot Number: 210084	Test: Mycotoxins	Reported: 12/6/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
Matrix: Concentrate	Test ID: T000179404	Started: 12/3/21	USDA License: N/A
Status: N/A	Method: TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins (Colorado Panel)	Received: 12/01/2021 @ 10:57 AM	Sampler ID: N/A

MYCOTOXIN DETERMINATION

Compound	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	4.3 - 125.3	ND	N/A
Aflatoxin B1	1 - 32.1	ND	
Aflatoxin B2	1.1 - 32.1	ND	
Aflatoxin G1	1 - 31.8	ND	
Aflatoxin G2	1.4 - 31.4	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	


 Ryan Weems
 6-Dec-21
 4:00 PM

PREPARED BY / DATE


 Courtney Richards
 6-Dec-21
 4:25 PM

APPROVED BY / DATE

Definitions

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

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Certificate #4329.02

Certificate of Analysis

Elixinol, LLC

10170 Church Ranch
Westminster Colorado 80021 United States

Sample Name:	300mg Citrus Twist Lipo - 210084	Eurofins Sample:	11199430
Project ID	ELIXINOL-20211130-0046	Receipt Date	01-Dec-2021
PO Number		Receipt Condition	Ambient temperature
Lot Number	210084	Login Date	30-Nov-2021
Sample Serving Size	0.5 mL	Date Started	03-Dec-2021
		Sampled	Sample results apply as received
		Online Order	13484-1668FA4D

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: 10-Dec-2021 10:21 pm

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