

Prepared for:

1000mg Liposome Citrus Twist - 210092

Elixinol LLC

Batch ID or Lot Number: 210092	Test: Potency	Reported: 12/22/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
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Matrix: Solution	Test ID: T000181055	Started: 12/9/21	USDA License: N/A
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Status: N/A	Method: TM14 (HPLC-DAD): Potency - Standard Cannabinoid Analysis (Colorado Panel)	Received: 12/08/2021 @ 09:08 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)	0.139	0.446	ND	ND	Amendment to certificate T000181055 issued on 10Dec2021, sample name and batch ID corrected.
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.157	0.503	ND	ND	
Cannabidiolic acid (CBDA)	0.164	0.528	ND	ND	
Cannabidiol (CBD)	0.160	0.515	10.356	10.45	
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.173	0.554	ND	ND	
Cannabinolic Acid (CBNA)	0.099	0.317	ND	ND	
Cannabinol (CBN)	0.045	0.145	ND	ND	
Cannabigerolic acid (CBGA)	0.145	0.465	ND	ND	
Cannabigerol (CBG)	0.035	0.111	0.229	0.23	
Tetrahydrocannabivarinic Acid (THCVA)	0.123	0.393	ND	ND	
Tetrahydrocannabivarin (THCV)	0.032	0.101	ND	ND	Density = 0.991283g/mL
Cannabidivarinic Acid (CBDVA)	0.069	0.220	ND	ND	
Cannabidivarin (CBDV)	0.038	0.122	0.041*	0.04*	
Cannabichromenic Acid (CBCA)	0.056	0.179	ND	ND	
Cannabichromene (CBC)	0.061	0.196	ND	ND	
Total Cannabinoids			10.626	10.72	
Total Potential THC**			ND	ND	
Total Potential CBD**			10.356	10.45	



Ryan Weems
22-Dec-2021
02:32 PM



Sam Smith
22-Dec-21
2:52 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

Prepared for:


1000mg Liposome Citrus Twist - 210092

Elixinol LLC


Batch ID or Lot Number: 210092	Test: Metals	Reported: 11/17/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
Matrix: Unit Co	Test ID: T000176130	Started: 11/16/21	USDA License: N/A
Status: N/A	Method: TM19 (ICP-MS): Heavy Metals (Colorado Panel)	Received: 11/12/2021 @ 04:57 PM	Sampler ID: N/A

HEAVY METALS DETERMINATION

Compound	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.043 - 4.32	ND	
Cadmium	0.044 - 4.40	ND	
Mercury	0.043 - 4.34	ND	
Lead	0.042 - 4.23	ND	

 Daniel Weidensaul
 17-Nov-21
 1:38 PM

PREPARED BY / DATE

 Sam Smith
 17-Nov-21
 1:41 PM

APPROVED BY / DATE

Definitions

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

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Prepared for:

1000mg Liposome Citrus Twist - 210092

Elixinol LLC

Batch ID or Lot Number: 210092	Test: Residual Solvents	Reported: 11/17/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
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Matrix: N/A	Test ID: T000176131	Started: 11/17/21	USDA License: N/A
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Status: N/A	Methods: TM04 (GC-MS): Residual Solvents (Colorado Panel)	Received: 11/12/2021 @ 04:57 PM	Sampler ID: N/A
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RESIDUAL SOLVENTS DETERMINATION

Solvent	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	85 - 1703	*ND	
Butanes (Isobutane, n-Butane)	172 - 3442	*ND	
Methanol	48 - 965	*ND	
Pentane	66 - 1312	*ND	
Ethanol	67 - 1337	*ND	
Acetone	76 - 1527	*ND	
Isopropyl Alcohol	80 - 1596	*ND	
Hexane	5 - 93	*ND	
Ethyl Acetate	77 - 1537	*ND	
Benzene	0.2 - 3.1	*ND	
Heptanes	73 - 1460	*ND	
Toluene	14 - 277	*ND	
Xylenes (m,p,o-Xylenes)	100 - 2004	*ND	

 Hannah Wright
17-Nov-21
4:48 PM

 Sam Smith
17-Nov-21
4:51 PM

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Definitions

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Prepared for:

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Elixinol LLC

Batch ID or Lot Number: 210092	Test: Pesticides	Reported: 11/17/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
Matrix: Concentrate	Test ID: T000176128	Started: 11/16/21	USDA License: N/A
Status: N/A	Method: TM17(LC-QQQ LC MS/MS):	Received: 11/12/2021 @ 04:57 PM	Sampler ID: N/A

PESTICIDE DETERMINATION

Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)
Acephate	38	ND	Fenoxycarb	33	ND	Paclobutrazol	34	ND
Acetamiprid	31	ND	Fipronil	36	ND	Permethrin	294	ND
Avermectin	238	ND	Flonicamid	35	ND	Phosmet	32	ND
Azoxystrobin	33	ND	Fludioxonil	297	ND	Prophos	269	ND
Bifenazate	33	ND	Hexythiazox	31	ND	Propoxur	37	ND
Boscalid	29	ND	Imazalil	270	ND	Pyridaben	293	ND
Carbaryl	32	ND	Imidacloprid	33	ND	Spinosad A	27	ND
Carbofuran	34	ND	Kresoxim-methyl	150	ND	Spinosad D	52	ND
Chlorantraniliprole	25	ND	Malathion	272	ND	Spiromesifen	256	ND
Chlorpyrifos	500	ND	Metalaxyl	36	ND	Spirotetramat	273	ND
Clofentezine	288	ND	Methiocarb	34	ND	Spiroxamine 1	16	ND
Diazinon	279	ND	Methomyl	35	ND	Spiroxamine 2	20	ND
Dichlorvos	269	ND	MGK 264 1	151	ND	Tebuconazole	282	ND
Dimethoate	35	ND	MGK 264 2	112	ND	Thiacloprid	31	ND
E-Fenpyroximate	275	ND	Myclobutanil	30	ND	Thiamethoxam	35	ND
Etofenprox	32	ND	Naled	43	ND	Trifloxystrobin	33	ND
Etoxazole	282	ND	Oxamyl	1500	ND			


 Sam Smith
 11/17/2021
 4:42:00 PM


 Daniel Weidensaul
 11/17/2021
 5:02:00 PM

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Definitions

LOQ = Limit of Quantification
 ppb = Parts per Billion

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Certificate #4329.02

Prepared for:

1000mg Liposome Citrus Twist - 210092
Elixinol LLC


Batch ID or Lot Number: 210092	Test: Microbial Contaminants	Reported: 11/18/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
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Matrix: Finished Product	Test ID: T000176129	Started: 11/15/21	USDA License: N/A
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Status: N/A	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial (Colorado Panel)	Received: 11/12/2021 @ 04:57 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	


 Brett Hudson
 11/18/2021
 2:56:00 PM

PREPARED BY / DATE


 Brianne Maillot
 11/18/2021
 3:43:00 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:

1000mg Liposome Citrus Twist - 210092

Elixinol LLC

Batch ID or Lot Number: 210092	Test: Mycotoxins	Reported: 11/18/21	Location: 10170 Church Ranch Way, Ste 400 Westminster, CO 80021
Matrix: Concentrate	Test ID: T000176133	Started: 11/17/21	USDA License: N/A
Status: N/A	Method: TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins (Colorado Panel)	Received: 11/12/2021 @ 04:57 PM	Sampler ID: N/A

MYCOTOXIN DETERMINATION

Compound	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	3.3 - 131.8	ND	N/A
Aflatoxin B1	1 - 32.5	ND	
Aflatoxin B2	1 - 32.4	ND	
Aflatoxin G1	1 - 31.6	ND	
Aflatoxin G2	1 - 31.7	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Samantha Simons
Sam Smith
18-Nov-21
8:42 AM

PREPARED BY / DATE

Courtney Richards
Courtney Richards
18-Nov-21
4:45 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:	1000mg Liposome Citrus Twist - 210092	Eurofins Sample:	11144552
Project ID	ELIXINOL-20211111-0041	Receipt Date	15-Nov-2021
PO Number	CVD	Receipt Condition	Ambient temperature
Lot Number	210092	Login Date	11-Nov-2021
Sample Serving Size	1 mL	Date Started	17-Nov-2021
		Sampled	Sample results apply as received
		Online Order	13484-1650140D

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: 23-Nov-2021 6:21 pm

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