SC Labs®
Formerly Botanacor Labs

Official Compliance: Colorado

CERTIFICATE OF ANALYSIS

Prepared for:
Elixinol LLC
10170 Church Ranch Way, Ste 400
Westminster, CO USA 80021

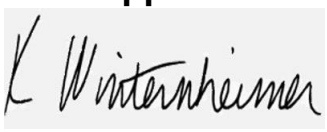
Calm Dog Chews - 230005

Batch ID or Lot Number:	Test:	Reported:	USDA License:
230005	**Potency**	**16Feb2023**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Unit	T000235854	15Feb2023	N/A
	Method(s): TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis	Received: 15Feb2023	Status: Active

Cannabinoids

	LOD (mg)	**LOQ** (mg)	**Result** (mg)	**Result** (mg/g)	**Notes**
Cannabichromene (CBC)	0.176	0.572	ND	ND	# of Servings = 1 Sample Weight=2.291g
Cannabichromenic Acid (CBCA)	0.161	0.523	ND	ND	
Cannabidiol (CBD)	0.510	1.504	10.908	4.76	
Cannabidiolic Acid (CBDA)	0.523	1.543	ND	ND	
Cannabidivarin (CBDV)	0.121	0.356	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.218	0.644	ND	ND	
Cannabigerol (CBG)	0.100	0.325	ND	ND	
Cannabigerolic Acid (CBGA)	0.418	1.358	ND	ND	
Cannabinol (CBN)	0.130	0.424	ND	ND	
Cannabinolic Acid (CBNA)	0.285	0.926	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.498	1.618	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.452	1.469	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.401	1.302	ND	ND	
Tetrahydrocannabivarin (THCV)	0.091	0.295	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.353	1.148	ND	ND	
Total Cannabinoids			**10.908**	**4.76**	
Total Potential THC			ND	ND	
Total Potential CBD			10.908	4.76	

Final Approval



Karen Winternheimer
16Feb2023
03:13:00 PM MST
PREPARED BY / DATE

Sam Smith
16Feb2023
03:19:00 PM MST
APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/9e0ab68c-3397-43d9-be5c-f72fc138d2aa

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)).

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Prepared for:
Elixinol LLC
10170 Church Ranch Way, Ste 400
Westminster, CO USA 80021

Calm Dog Chews - 230005

Batch ID or Lot Number:	Test:	Reported:	USDA License:
230005	**Residual Solvents**	**31Jan2023**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000234064	31Jan2023	N/A
	Method(s):	Received:	Status:
	TM04 (GC-MS): Residual Solvents	30Jan2023	Active

Residual Solvents

	Dynamic Range (ppm)	**Result** (ppm)	**Notes**
Propane	81 - 1618	ND	
Butanes (Isobutane, n-Butane)	169 - 3371	ND	
Methanol	51 - 1023	ND	
Pentane	85 - 1692	ND	
Ethanol	81 - 1629	ND	
Acetone	83 - 1660	ND	
Isopropyl Alcohol	84 - 1680	ND	
Hexane	5 - 102	ND	
Ethyl Acetate	84 - 1688	ND	
Benzene	0.2 - 3.6	ND	
Heptanes	90 - 1807	ND	
Toluene	16 - 313	ND	
Xylenes (m,p,o-Xylenes)	116 - 2312	ND	

Final Approval

Sam Smith
31Jan2023
02:45:00 PM MST
PREPARED BY / DATE

Karen Winternheimer
31Jan2023
02:48:00 PM MST
APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/5937a420-cb68-4cf1-aeed-af521e5f8a6d

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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CERTIFICATE OF ANALYSIS

Prepared for:
Elixinol LLC
10170 Church Ranch Way, Ste 400
Westminster, CO USA 80021

Calm Dog Chews - 230005

Batch ID or Lot Number:	Test:	Reported:	USDA License:
230005	**Microbial Contaminants**	**02Feb2023**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Finished Product	T000234062	30Jan2023	N/A
	Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)	Received: 30Jan2023	Status: Active

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
Salmonella	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

Brett Hudson
02Feb2023
03:35:00 PM MST
PREPARED BY / DATE

Brianne Maillot
02Feb2023
04:33:00 PM MST
APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/94700342-481b-441d-b8f4-90f580272150

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: 10^2 = 100 CFU, 10^3 = 1,000 CFU, 10^4 = 10,000 CFU, 10^5 = 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

Calm Dog Chews - 230005

Batch ID or Lot Number:	Test:	Reported:	USDA License:
230005	**Mycotoxins**	**02Feb2023**	N/A
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000234065	01Feb2023	N/A
	Method(s): TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 30Jan2023	Status: Active

Mycotoxins

	Dynamic Range (ppb)	**Result** (ppb)	**Notes**
Ochratoxin A	3.77 - 129.10	ND	N/A
Aflatoxin B1	0.89 - 32.74	ND	
Aflatoxin B2	0.93 - 32.83	ND	
Aflatoxin G1	1.02 - 32.32	ND	
Aflatoxin G2	1.05 - 32.80	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval

Sam Smith
02Feb2023
07:24:00 AM MST
PREPARED BY / DATE

Karen Winternheimer
02Feb2023
07:29:00 AM MST
APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/1a475434-6c18-4ea3-951b-85afe809a978

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

1a4754346c184ea3951b85afe809a978.1

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CERTIFICATE OF ANALYSIS

Prepared for:
Elixinol LLC
10170 Church Ranch Way, Ste 400
Westminster, CO USA 80021

Calm Dog Chews - 230005

Batch ID or Lot Number:	Test:	Reported:	USDA License:
230005	**Heavy Metals**	**03Feb2023**	NA
Matrix:	Test ID:	Started:	Sampler ID:
Unit Co	T000234063	02Feb2023	NA
	Method(s):	Received:	Status:
	TM19 (ICP-MS): Heavy Metals	30Jan2023	NA

Heavy Metals

	Dynamic Range (ppm)	**Result** (ppm)	**Notes**
Arsenic	0.06 - 6.22	ND	
Cadmium	0.06 - 6.37	ND	
Mercury	0.06 - 6.11	ND	
Lead	0.06 - 6.45	0.15	

Final Approval

Sam Smith
03Feb2023
06:55:00 AM MST
PREPARED BY / DATE

Karen Winternheimer
03Feb2023
07:00:00 AM MST
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https://results.botanacor.com/api/v1/coas/uuid/17b1a4d1-5ec7-4b07-a251-f311d381cccc

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

17b1a4d15ec74b07a251f311d381cccc.1

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Prepared for:
Elixinol LLC
10170 Church Ranch Way, Ste 400
Westminster, CO USA 80021

Calm Dog Chews - 230005

Batch ID or Lot Number:	Test:	Reported:	USDA License:
230005	**Pesticides**	**03Feb2023**	NA
Matrix:	Test ID:	Started:	Sampler ID:
Concentrate	T000234061	01Feb2023	NA
	Method(s):	Received:	Status:
	TM17 (LC-QQ LC MS/MS)	30Jan2023	NA

Pesticides

	Dynamic Range (ppb)	**Result** (ppb)
Abamectin	292 - 2707	ND
Acephate	45 - 2767	ND
Acetamiprid	44 - 2758	ND
Azoxystrobin	43 - 2747	ND
Bifenazate	39 - 2732	ND
Boscalid	35 - 2700	ND
Carbaryl	45 - 2731	ND
Carbofuran	44 - 2717	ND
Chlorantraniliprole	43 - 2666	ND
Chlorpyrifos	50 - 2713	ND
Clofentezine	270 - 2767	ND
Diazinon	276 - 2752	ND
Dichlorvos	278 - 2771	ND
Dimethoate	41 - 2761	ND
E-Fenpyroximate	289 - 2734	ND
Etofenprox	42 - 2774	ND
Etoxazole	298 - 2712	ND
Fenoxycarb	42 - 2767	ND
Fipronil	51 - 2704	ND
Flonicamid	50 - 2802	ND
Fludioxonil	288 - 2756	ND
Hexythiazox	41 - 2761	ND
Imazalil	263 - 2758	ND
Imidacloprid	44 - 2755	ND
Kresoxim-methyl	41 - 2798	ND

	Dynamic Range (ppb)	**Result** (ppb)
Malathion	289 - 2718	ND
Metalaxyl	44 - 2730	ND
Methiocarb	45 - 2709	ND
Methomyl	41 - 2762	ND
MGK 264 1	168 - 1637	ND
MGK 264 2	120 - 1139	ND
Myclobutanil	43 - 2701	ND
Naled	42 - 2772	ND
Oxamyl	43 - 2764	ND
Paclobutrazol	40 - 2735	ND
Permethrin	280 - 2765	ND
Phosmet	40 - 2744	ND
Prophos	293 - 2662	ND
Propoxur	42 - 2724	ND
Pyridaben	293 - 2751	ND
Spinosad A	35 - 2244	ND
Spinosad D	49 - 498	ND
Spiromesifen	281 - 2750	ND
Spirotetramat	272 - 2754	ND
Spiroxamine 1	20 - 1148	ND
Spiroxamine 2	21 - 1557	ND
Tebuconazole	296 - 2732	ND
Thiacloprid	42 - 2746	ND
Thiamethoxam	42 - 2770	ND
Trifloxystrobin	44 - 2749	ND

Final Approval

Karen Winternheimer
03Feb2023
09:29:00 AM MST
PREPARED BY / DATE

Sam Smith
03Feb2023
09:39:00 AM MST
APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/58571726-8ff2-4a62-a279-6a17d3bf632b

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

Cert #4329.02
585717268ff24a62a2796a17d3bf632b.1

eurofins | Food Integrity & Innovation

Report Number:	**3972611-0**
Report Date:	**14-Feb-2023**
Report Status:	**Final**

Certificate of Analysis

Elixinol, LLC

10170 Church Ranch
Westminster Colorado 80021 United States

Sample Name:	**Calm Dog Chews - 230005**	**Eurofins Sample:**	**12588121**
Project ID	ELIXINOL-20230126-0004	**Receipt Date**	31-Jan-2023
PO Number	PO-0019	**Receipt Condition**	Ambient temperature
Lot Number	230005	**Login Date**	26-Jan-2023
Sample Serving Size	1 Piece	**Date Started**	31-Jan-2023
Description	Calm Dog Chews - 230005	**Sampled**	Sample results apply as received
		Online Order	901-2023-E005392

Analysis	Result
Calculated Sample Weight *	
Entity Weight	2.1720 g
Tryptophan	
Tryptophan	34.0 mg/Serving Size
Enterobacteriaceae Plate Count *	
Enterobacteriaceae	<10 CFU/g
Glyphosate and AMPA	
Glyphosate	<100 ng/g
AMPA	<100 ng/g

Method References	Testing Location
Calculated Sample Weight (PREP)	**Food Integrity Innovation-Madison** 6304 Ronald Reagan Ave Madison, WI 53704 USA
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_AMPA_S) — **Food Integrity Innovation-Madison**, 6304 Ronald Reagan Ave Madison, WI 53704 USA

Internally developed method.

*** This analysis or component is not ISO accredited.**

Certificate of Analysis

Elixinol, LLC

10170 Church Ranch
Westminster Colorado 80021 United States

Method References	Testing Location
Tryptophan (TRPLC_S)	**Food Integrity Innovation-Madison** 6304 Ronald Reagan Ave Madison, WI 53704 USA

Official Methods of Analysis of AOAC INTERNATIONAL, AOAC International Gaithersburg, MD, USA, Official Method 988.15.

R. Schuster, "Determination of Amino Acids in Biological, Pharmaceutical, Plant and Food Samples by Automated Precolumn Derivatization and HPLC", Journal of Chromatography. 1988, 431, 271-284.

Henderson, J.W., Ricker, R.D. Bidlingmeyer, B.A., Woodward, C., "Rapid, Accurate, Sensitive, and Reproducible HPLC Analysis of Amino Acids, Amino Acid Analysis Using Zorbax Eclipse-AAA columns and the Agilent 1100 HPLC," Agilent Publication, 2000.

Henderson, J.W., Brooks, A., "Improved Amino Acid Methods using Agilent Zorbax Eclipse Plus C18 Columns for a Variety of Agilent LC Instrumentation and Separation Goals," Agilent Application Note 5990-4547 (2010).

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

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.**

AllianceNutra

January 5, 2023

Input Level Verification of Botanical Ingredients and Proprietary Blends

Alliance Nutra is a GMP certified and FDA registered manufacturer of Dietary Supplements. In many dietary supplements, botanical ingredients and proprietary blends are used, and claimed, on the product label. These botanical ingredients sometimes do not have an analytical method which can be utilized to verify the bulk botanical ingredient input amount. When an analytical method does not exist, is not appropriate for the dosage and/or matrix, or when a mix of analytical and process control verification methods are used to confirm label claims are met in a product, Alliance Nutra can utilize a process control verification to ensure the label claim amount is met for certain ingredients.

In the Master Formula, which is developed and proprietary property of Alliance Nutra, all label claims are specified per active ingredient (including botanical ingredients and proprietary blends). The Master Formula also includes an overage for each active ingredient, the potency of each active ingredient (if applicable), and specifies a serving size. The label claim, overage, potency (if applicable), and serving size are used to calculate and verify the required input amount of each active ingredient to ensure label claims are met on a per serving basis, and on a per batch basis. This Master Formula is then used to generate the Master Manufacturing Record, where input amounts on a batch basis are input, and then verified to confirm label claim amounts.

After all quality and compliance criteria are met, and label claims are verified, the Master Manufacturing Record is approved and controlled. Batch Production Records are then issued from the correlating Master Manufacturing Record according to customer PO's. Once Batch Production has been completed, the Quality Department verifies all input amounts, which are required to be verified by process control on a per serving basis, and sends out the required analytical testing to ensure all label claims (both analytical and bulk input amounts) are met before the product is released.

Statement Approved By:

Emily Boyd
Director, Quality, Regulatory, and Technical Services
Alliance Nutra, Inc.