

STRAIGHT HEMP

CERTIFICATE OF ANALYSIS

PRODUCT: CBD Balm
BATCH/LOT: B0051

PRODUCTION DATE: 5/2022
EXPIRATION DATE: 5/2024

TEST	METHOD	SPECIFICATION	RESULTS
Strength & Composition			
Identity	Organoleptic	Conforming	PASS
Identity	HPLC/LCMS	Chemical Fingerprint	PASS
Total Cannabidiol (CBD) ⁱ	HPLC/LCMS	17.6 – 21.2 mg/g	18.16 mg/g
Total Tetrahydrocannabinol (THC) ⁱⁱ	HPLC/LCMS	NMT 0.30%	0.036%
Terpene assay ⁱⁱⁱ	HS-GC/MS	n/e	3.7%
Microbiological^{iv}			
Total Plate Count	TM-26	NMT 10,000 cfu/g	PASS
Total Yeast & Mold	TM-24	NMT 1,000 cfu/g	PASS
Total Coliforms	TM-27	NMT 100 cfu/g	PASS
<i>E. coli</i>	TM-25	Absent/25g	PASS
<i>Salmonella</i>	TM-25	Absent/25g	PASS
Mycotoxins			
Alfatoxin B1	LCMS	NMT 20 ppb	PASS
Alfatoxin B2	LCMS	NMT 20 ppb	PASS
Alfatoxin G1	LCMS	NMT 20 ppb	PASS
Alfatoxin G2	LCMS	NMT 20 ppb	PASS
Ochratoxin	LCMS	NMT 20 ppb	PASS
Heavy Metals^v			
Arsenic (As)	ICP/MS	NMT 1.0 ppm	PASS
Cadmium (Cd)	ICP/MS	NMT 0.5 ppm	PASS
Lead (Pb)	ICP/MS	NMT 0.5 ppm	PASS
Mercury (Hg)	ICP/MS	NMT 0.1 ppm	PASS

ⁱ Total CBD = CBD + (0.877*CBDA) to account for loss of acid group during decarboxylation

ⁱⁱ Total THC = THC + (0.877*THCa) to account for loss of acid group during decarboxylation

ⁱⁱⁱ Sum of terpene assay (n=22)

^{iv} Microbiological limits based on USP, WHO, and/or NSF/ANSI

^v Limits for As and Pb set below CA Prop 65 *no significant risk level*; Cd and Hg set below USP permitted daily exposure for 110lb body weight. Complies with 6 CCR 1010-21

NMT = Not More Than
MRL = Method Reporting Limit



STRAIGHT HEMP CERTIFICATE OF ANALYSIS

PRODUCT: CBD Balm
BATCH/LOT: B0051

PRODUCTION DATE: 5/2022
EXPIRATION DATE: 5/2024

TEST	METHOD	SPECIFICATION	RESULTS
Residual Solvents^{vi}			
Acetone	GC-MS	Below MRL	PASS
Benzene	GC-MS	Below MRL	PASS
Butanes	GC-MS	Below MRL	PASS
Ethanol	GC-MS	Below MRL	PASS
Ethyl Acetate	GC-MS	Below MRL	PASS
Heptanes	GC-MS	Below MRL	PASS
Hexane	GC-MS	Below MRL	PASS
Isopropyl Alcohol	GC-MS	Below MRL	PASS
Methanol	GC-MS	Below MRL	PASS
Pentane	GC-MS	Below MRL	PASS
Propane	GC-MS	Below MRL	PASS
Toluene	GC-MS	Below MRL	PASS
Xylenes	GC-MS	Below MRL	PASS

Pesticides

Multi-residue panel

UPLC-MS/MS

Below MRL^{vii}

PASS

NMT = Not More Than

MRL = Method Reporting Limit

n/e = not established

David Cole
Director of Quality

7/12/22

Date

^{vi} 21 solvent panel may also include: 1,1-Dichloroethene, 1,2-Dichloroethane, Acetonitrile, Chloroform, Ethyl Ether, Ethylene Oxide, Methylene Chloride, Trichloroethylene.
^{vii} 50 residue panel

Prepared for:

CBD Balm

Straight Hemp


Batch ID or Lot Number: B0051	Test: Potency	Reported: 5/24/22	Location: 5135 W 58th Ave, Unit 5 Arvada, CO 80002
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Matrix: Concentrate	Test ID: T000207545	Started: 5/23/22	USDA License: N/A
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Status: Active	Method: TM14 (HPLC-DAD): Potency - Broad Spectrum Analysis, 0.01% THC	Received: 05/20/2022 @ 10:59 AM	Sampler ID: N/A
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CANNABINOID PROFILE

Compound	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)	Notes
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.002	0.007	ND	ND	N/A
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.002	0.008	0.036	0.36	
Cannabidiolic acid (CBDA)	0.016	0.051	<LOQ	0.26	
Cannabidiol (CBD)	0.016	0.050	1.793	17.93	
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.015	0.052	ND	ND	
Cannabinolic Acid (CBNA)	0.009	0.030	ND	ND	
Cannabinol (CBN)	0.004	0.014	ND	ND	
Cannabigerolic acid (CBGA)	0.013	0.044	ND	ND	
Cannabigerol (CBG)	0.003	0.010	0.114	1.14	
Tetrahydrocannabivarinic Acid (THCVA)	0.011	0.037	ND	ND	
Tetrahydrocannabivarin (THCV)	0.003	0.010	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.007	0.021	ND	ND	
Cannabidivarin (CBDV)	0.004	0.012	0.024	0.24	
Cannabichromenic Acid (CBCA)	0.005	0.017	ND	ND	
Cannabichromene (CBC)	0.005	0.018	0.033	0.33	
Total Cannabinoids			2.026	20.26	
Total Potential THC**			0.036	0.36	
Total Potential CBD**			1.816	18.16	

 Karen Winternheimer
24-May-22
3:25 PM

 Jacob Miller
24-May-22
3:28 PM

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Definitions

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

** 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)

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CDPHE Certified

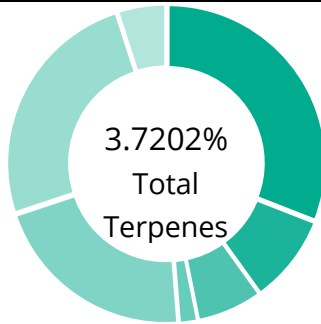


Certificate #4329.02

CBD Balm

Batch ID:	B0051	Test ID:	T000207546
Type:	Topical	Submitted:	05/20/2022 @ 10:59 AM
Test:	Terpenes	Started:	5/24/2022
Method:	TM22 (GC-MS)	Reported:	5/25/2022

TERPENE PROFILE



Compound	%(w/w)	mg/g
(-)-alpha-Bisabolol	0.0000	0.000
Camphene	0.0953	0.953
delta-3-Carene	0.0968	0.968
beta-Caryophyllene	0.0715	0.715
(-)-Caryophyllene Oxide	0.0000	0.000
p-Cymene	0.1134	1.134
Eucalyptol	1.7498	17.498
Geraniol	0.1533	1.533
alpha-Humulene	0.0000	0.000
(-)-Isopulegol	0.0000	0.000
d-Limonene	0.3030	3.030
Linalool	0.3600	3.600
beta-Myrcene	0.0000	0.000
cis-Nerolidol	0.0000	0.000
trans-Nerolidol	0.0000	0.000
Ocimene	0.0067	0.067
beta-Ocimene	0.0000	0.000
alpha-Pinene	0.4431	4.431
(-)-beta-Pinene	0.1311	1.311
alpha-Terpinene	0.0273	0.273
gamma-Terpinene	0.1315	1.315
Terpinolene	0.0374	0.374
Total	3.7202	37.202


PREDOMINANT TERPENES


alpha-Pinene	0.4431
(-)-beta-Pinene	0.1311
beta-Myrcene	0.0000
delta-3-Carene	0.0968
alpha-Terpinene	0.0273
d-Limonene	0.3030
Linalool	0.3600
beta-Caryophyllene	0.0715
alpha-Humulene	0.0000
(-)-alpha-Bisabolol	0.0000

NOTES:

N/A

FINAL APPROVAL


 Jacob Miller
 25-May-2022
 12:19 PM


 Ryan Weems
 25-May-2022
 12:21 PM

PREPARED BY / DATE

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC. 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 Certificate Number 4329.02



Certificate #4329.02

Prepared for:

CBD Balm
Straight Hemp

Batch ID or Lot Number: B0051	Test: Microbial Contaminants	Reported: 5/24/22	Location: 5135 W 58th Ave, Unit 5 Arvada, CO 80002
Matrix: Finished Product	Test ID: T000207548	Started: 5/20/22	USDA License: N/A
Status: Active	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial	Received: 05/20/2022 @ 10:59 AM	Sampler ID: N/A

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	
STEC	TM-25, PCR	10 ⁰ CFU/25 g	NA	NA	Absent	
Salmonella	TM-25, PCR	10 ⁰ CFU/25 g	NA	NA	Absent	



 Carly Bader
 5/24/2022
 1:32:00 PM



 Eden Thompson-Wright
 5/24/2022
 3:20:00 PM

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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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CDPHE Certified



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Prepared for:

CBD Balm**Straight Hemp**

Batch ID or Lot Number: B0051	Test: Mycotoxins	Reported: 5/26/22	Location: 5135 W 58th Ave, Unit 5 Arvada, CO 80002
Matrix: Concentrate	Test ID: T000207551	Started: 5/25/22	USDA License: N/A
Status: Active	Method: TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 05/20/2022 @ 10:59 AM	Sampler ID: N/A

MYCOTOXIN DETERMINATION

Compound	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	3.7 - 128	ND	N/A
Aflatoxin B1	1.1 - 33.8	ND	
Aflatoxin B2	1.3 - 33.9	ND	
Aflatoxin G1	1.2 - 33.6	ND	
Aflatoxin G2	1 - 33.5	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Ryan Weems
26-May-22
11:15 AMSam Smith
26-May-22
11:19 AM

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Definitions

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

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Prepared for:

CBD Balm
Straight Hemp

Batch ID or Lot Number: B0051	Test: Metals	Reported: 5/25/22	Location: 5135 W 58th Ave, Unit 5 Arvada, CO 80002
Matrix: Unit Co	Test ID: T000207549	Started: 5/25/22	USDA License: N/A
Status: Active	Method: TM19 (ICP-MS): Heavy Metals	Received: 05/20/2022 @ 10:59 AM	Sampler ID: N/A

HEAVY METALS DETERMINATION

Compound	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.043 - 4.28	ND	
Cadmium	0.044 - 4.35	ND	
Mercury	0.044 - 4.36	ND	
Lead	0.036 - 3.58	ND	


 Ryan Weems
 25-May-22
 3:31 PM

PREPARED BY / DATE


 Daniel Weidensaul
 25-May-22
 3:33 PM

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Definitions

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

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Prepared for:


CBD Balm
Straight Hemp

Batch ID or Lot Number: B0051	Test: Residual Solvents	Reported: 5/24/22	Location: 5135 W 58th Ave, Unit 5 Arvada, CO 80002
Matrix: N/A	Test ID: T000207550	Started: 5/24/22	USDA License: N/A
Status: Active	Methods: TM04 (GC-MS): Residual Solvents	Received: 05/20/2022 @ 10:59 AM	Sampler ID: N/A

RESIDUAL SOLVENTS DETERMINATION

Solvent	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	76 - 1523	*ND	
Butanes (Isobutane, n-Butane)	158 - 3159	*ND	
Methanol	61 - 1224	*ND	
Pentane	88 - 1752	*ND	
Ethanol	85 - 1692	*ND	
Acetone	98 - 1963	*ND	
Isopropyl Alcohol	97 - 1943	*ND	
Hexane	6 - 122	*ND	
Ethyl Acetate	99 - 1977	*ND	
Benzene	0.2 - 4.2	*ND	
Heptanes	100 - 2008	*ND	
Toluene	18 - 361	*ND	
Xylenes (m,p,o-Xylenes)	131 - 2627	*ND	


 Sam Smith
 24-May-22
 4:06 PM


 Ryan Weems
 24-May-22
 4:08 PM

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Definitions

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

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Prepared for:

CBD Balm
Straight Hemp


Batch ID or Lot Number: B0051	Test: Pesticides	Reported: 5/25/22	Location: 5135 W 58th Ave, Unit 5 Arvada, CO 80002
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Matrix: Concentrate	Test ID: T000207547	Started: 5/24/22	USDA License: N/A
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Status: N/A	Method: TM17(LC-QQQ LC MS/MS):	Received: 05/20/2022 @ 10:59 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	45	ND	Fenoxycarb	46	ND	Paclobutrazol	42	ND
Acetamiprid	43	ND	Fipronil	48	ND	Permethrin	297	ND
Abamectin	292	ND	Flonicamid	56	ND	Phosmet	42	ND
Azoxystrobin	42	ND	Fludioxonil	298	ND	Prophos	305	ND
Bifenazate	37	ND	Hexythiazox	48	ND	Propoxur	42	ND
Boscalid	45	ND	Imazalil	285	ND	Pyridaben	292	ND
Carbaryl	41	ND	Imidacloprid	46	ND	Spinosad A	34	ND
Carbofuran	42	ND	Kresoxim-methyl	150	ND	Spinosad D	52	ND
Chlorantraniliprole	56	ND	Malathion	288	ND	Spiromesifen	285	ND
Chlorpyrifos	500	ND	Metalaxyl	40	ND	Spirotetramat	281	ND
Clofentezine	275	ND	Methiocarb	43	ND	Spiroxamine 1	18	ND
Diazinon	278	ND	Methomyl	44	ND	Spiroxamine 2	25	ND
Dichlorvos	289	ND	MGK 264 1	183	ND	Tebuconazole	296	ND
Dimethoate	45	ND	MGK 264 2	124	ND	Thiacloprid	43	ND
E-Fenpyroximate	280	ND	Myclobutanil	42	ND	Thiamethoxam	43	ND
Etofenprox	40	ND	Naled	40	ND	Trifloxystrobin	40	ND
Etoxazole	298	ND	Oxamyl	1500	ND			


 Daniel Weidensaul
 5/25/2022
 11:14:00 AM


 Sam Smith
 5/25/2022
 11:19:00 AM

PREPARED BY / DATE

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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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