

CERTIFICATE OF ANALYSIS

PRODUCT NAME: Organic CBD Tincture - Natural
PRODUCT STRENGTH: 450mg
TINCTURE BATCH: 220921A
BEST BY DATE: 9/21/2024
HEMP EXTRACT LOT: BCA-000479-220811

Physical Attributes

Test	Method	Specification	Results
Color	Joy Internal	Golden to Amber	PASS
Odor	Joy Internal	Characteristic - Olive and Hemp	PASS
Appearance	Joy Internal	Golden to Amber oil in brown glass bottle with dropper.	PASS
Primary Package Eval.	Joy Internal	Container clean and free of filth. Container caps tight and shrink bands intact	PASS
Secondary Package Eval.	Joy Internal	Labeling Compliance Checked, Cartons sturdy and clean. Sufficient cushion material exists. Box taped and secure.	PASS

Review of Third-Party Analysis

Panel	Method	Specification	Results*	Pass/Fail
Potency - Total CBD	HPLC-UV DAD	*NLT (product strength) mg / bottle	461mg	PASS
Potency - D9-THC	HPLC-UV DAD	LOQ: 10 ppm (.001-0.3%)	ND	PASS
Expanded Pesticide Panel	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	ND	PASS
Microbial Escherichia coli (STEC)	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	Absent	PASS
Microbial Salmonella	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	Absent	PASS
Microbial Yeast and Mold	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 ² CFU/gram	Below LOQ	PASS
Microbial Total Coliforms*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 ² CFU/gram	Below LOQ	PASS
Microbial Total Aerobic Count*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 ³ CFU/gram	Below LOQ	PASS
Heavy Metals Panel	ICP-MS	Arsenic (As): ≤1.5 ppm Cadmium (Cd): ≤0.5 ppm Lead (Pb): ≤0.5 ppm Mercury (Hg): ≤1.5 ppm	ND	PASS
Mycotoxins	ICP-MS	Total Aflatoxins <20 ppb† Afltoxin B1 < 5 ppb Ochratoxin < 5ppb	ND	PASS
Residual Solvents	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	ND	PASS

* Level of Quantitation, † Parts Per Million ‡ Part Per Billion
 CFU/g=Colony Forming Units per Gram
 *Nothing Less Than
 10²=100 CFU
 10³=1,000 CFU

Quality Certified



Name

9/30/2022

Date



12423 NE Whitaker Way
 Portland, OR 97230
 503-254-1794



Report Number: 22-009699/D002.R000
Report Date: 08/23/2022
ORELAP#: OR100028
Purchase Order:
Received: 08/15/22 10:57

Product identity: OTNAT450-220921A Lot ID: BCA-000479-220811 .
Client/Metric ID: 22-009699-0001
Laboratory ID:

Summary

Potency:

Analyte	Result	Limits	Units	Status	
CBD	1.67		%		CBD-Total per Serving Size 16.7 mg/1g
CBDV	0.00961		%		
CBG	0.106		%		THC-Total per Serving Size <LOQ
CBT	0.0182		%		(Reported in milligrams per serving)
Analyte per 1g	Result	Limits	Units	Status	
CBD per 1g	16.7		mg/1g		
CBDV per 1g	0.0961		mg/1g		
CBG per 1g	1.06		mg/1g		
CBT per 1g	0.182		mg/1g		

Residual Solvents:

All analytes passing and less than LOQ.

Pesticides:

All analytes passing and less than LOQ.

Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.



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Product identity: OTNAT450-220921A Lot ID: BCA-000479-220811 .
Client/Metric ID:
Sample Date: 22-009699-0001
Laboratory ID: No
Evidence of Cooling: 22.2 °C
Temp: UPS
Relinquished by: 1 g
Serving Size #1:

Sample Results

Potency	Method: J AOAC 2015 V98-6 (mod) ^b		Units %	Batch: 2206997	Analyze: 8/17/22 8:23:00 PM
Analyte	Result	Limits	Units	LOQ	Notes
CBC	< LOQ		%	0.00315	
CBC-A	< LOQ		%	0.00315	
CBC-Total	< LOQ		%	0.00591	
CBD	1.67		%	0.0315	
CBD-A	< LOQ		%	0.00315	
CBD-Total	1.67		%	0.0343	
CBDV	0.00961		%	0.00315	
CBDV-A	< LOQ		%	0.00315	
CBDV-Total	0.00961		%	0.00588	
CBE	< LOQ		%	0.00315	
CBG	0.106		%	0.00315	
CBG-A	< LOQ		%	0.00315	
CBG-Total	0.106		%	0.00588	
CBL	< LOQ		%	0.00315	
CBL-A	< LOQ		%	0.00315	
CBL-Total	< LOQ		%	0.00591	
CBN	< LOQ		%	0.00315	
CBT	0.0182		%	0.00315	
Δ8-THCV	< LOQ		%	0.00315	
Δ8-THC	< LOQ		%	0.00315	
Δ9-THC	< LOQ		%	0.00315	
exo-THC	< LOQ		%	0.00315	
THC-A	< LOQ		%	0.00315	
THC-Total	< LOQ		%	0.00591	
THCV	< LOQ		%	0.00315	
THCV-A	< LOQ		%	0.00315	
THCV-Total	< LOQ		%	0.00588	
Total Cannabinoids	1.80		%		

Potency per 1g	Method: J AOAC 2015 V98-6 (mod) ^b		Units mg/se	Batch: 2206997	Analyze: 8/17/22 8:23:00 PM
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 1g	< LOQ		mg/1g	0.0315	



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Potency per 1g Method: J AOAC 2015 V98-6 (mod)^b Units mg/se Batch: 2206997 Analyze: 8/17/22 8:23:00 PM

Analyte	Result	Limits	Units	LOQ	Notes
CBC-A per 1g	< LOQ		mg/1g	0.0315	
CBC-Total per 1g	< LOQ		mg/1g	0.0591	
CBD per 1g	16.7		mg/1g	0.315	
CBD-A per 1g	< LOQ		mg/1g	0.0315	
CBD-Total per 1g	16.7		mg/1g	0.343	
CBDV per 1g	0.0961		mg/1g	0.0315	
CBDV-A per 1g	< LOQ		mg/1g	0.0315	
CBDV-Total per 1g	0.0961		mg/1g	0.0588	
CBE per 1g	< LOQ		mg/1g	0.0315	
CBG per 1g	1.06		mg/1g	0.0315	
CBG-A per 1g	< LOQ		mg/1g	0.0315	
CBG-Total per 1g	1.06		mg/1g	0.0588	
CBL per 1g	< LOQ		mg/1g	0.0315	
CBL-A per 1g	< LOQ		mg/1g	0.0315	
CBL-Total per 1g	< LOQ		mg/1g	0.0591	
CBN per 1g	< LOQ		mg/1g	0.0315	
CBT per 1g	0.182		mg/1g	0.0315	
Δ8-THCV per 1g	< LOQ		mg/1g	0.0315	
Δ8-THC per 1g	< LOQ		mg/1g	0.0315	
Δ9-THC per 1g	< LOQ		mg/1g	0.0315	
exo-THC per 1g	< LOQ		mg/1g	0.0315	
THC-A per 1g	< LOQ		mg/1g	0.0315	
THC-Total per 1g	< LOQ		mg/1g	0.0591	
THCV per 1g	< LOQ		mg/1g	0.0315	
THCV-A per 1g	< LOQ		mg/1g	0.0315	
THCV-Total per 1g	< LOQ		mg/1g	0.0591	
Total Cannabinoids per 1g	18.0		mg/1g		

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Aerobic Plate Count	< LOQ	10,000	cfu/g	10	2206891	08/18/22 AOAC 990.12 (Petrifilm) ^p	pass	I
E.coli	< LOQ	100.00	cfu/g	10	2206889	08/18/22 AOAC 991.14 (Petrifilm) ^p	pass	I
Total Coliforms	< LOQ	100.00	cfu/g	10	2206889	08/18/22 AOAC 991.14 (Petrifilm) ^p	pass	I
Mold (RAPID Petrifilm)	< LOQ	1,000.	cfu/g	10	2206890	08/19/22 AOAC 2014.05 (RAPID) ^p	pass	I
Yeast (RAPID Petrifilm)	< LOQ	1,000.	cfu/g	10	2206890	08/19/22 AOAC 2014.05 (RAPID) ^p	pass	I
Salmonella spp. by PCR	Negative		/1g		2206893	08/17/22 AOAC 2020.02 ^b		I
EHEC including STEC	Negative		/1g		2206894	08/17/22 AOAC RI 121806 ^b		I



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Solvents		Method: Residual Solvents by GC/MS ^b				Units µg/g	Batch 2207117	Analyze 08/23/22 11:29 AM			
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
2-Methylbutane (Isopentane)	< LOQ	1000	200	pass		2-Methylpentane	< LOQ	60.0	30.0	pass	
2-Propanol (IPA)	< LOQ	1000	200	pass		2,2-Dimethylbutane	< LOQ	60.0	30.0	pass	
2,2-Dimethylpropane (neo-pentane)	< LOQ	1000	200	pass		2,3-Dimethylbutane	< LOQ	60.0	30.0	pass	
3-Methylpentane	< LOQ	60.0	30.0	pass		Acetone	< LOQ	1000	200	pass	
Benzene	< LOQ	2.00	1.00	pass		Butanes (sum)	< LOQ	1000	400	pass	
Ethanol	< LOQ	1000	200	pass		Ethyl acetate	< LOQ	1000	200	pass	
Hexanes (sum)	< LOQ	60.0	150	pass		m,p-Xylene	< LOQ	430	200	pass	
Methanol	< LOQ	600	200	pass		Methylpropane (Isobutane)	< LOQ	1000	200	pass	
n-Butane	< LOQ	1000	200	pass		n-Heptane	< LOQ	1000	200	pass	
n-Hexane	< LOQ	60.0	30.0	pass		n-Pentane	< LOQ	1000	200	pass	
o-Xylene	< LOQ	430	200	pass		Pentanes (sum)	< LOQ	1000	600	pass	
Propane	< LOQ	1000	200	pass		Toluene	< LOQ	180	100	pass	
Total Xylenes	< LOQ	430	400	pass							



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Pesticides											
Method: AOAC 2007.01 & EN 15662 (mod)											
Units mg/kg Batch 2207005 Analyze 08/18/22 02:59 PM											
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Abamectin	< LOQ	0.25	0.070	pass		Acephate	< LOQ	0.050	0.020	pass	
Acequinocyl	< LOQ	0.030	0.025	pass		Acetamidiprid	< LOQ	0.050	0.050	pass	
Aldicarb	< LOQ	0.50	0.100	pass		Allethrin	< LOQ	0.10	0.100	pass	
Atrazine	< LOQ	0.0250	0.025	pass		Azadirachtin	< LOQ	1.0	0.500	pass	
Azoxystrobin	< LOQ	0.010	0.010	pass		Benzovindiflupyr	< LOQ	0.010	0.010	pass	
Bifenazate	< LOQ	0.010	0.010	pass		Bifenthrin	< LOQ	1.0	0.100	pass	
Boscalid	< LOQ	0.010	0.010	pass		Buprofezin	< LOQ	0.020	0.010	pass	
Carbaryl	< LOQ	0.025	0.025	pass		Carbofuran	< LOQ	0.010	0.010	pass	
Chlorantraniliprole	< LOQ	0.020	0.010	pass		Chlorfenapyr	< LOQ	1.5	0.100	pass	
Chlorpyrifos	< LOQ	0.50	0.010	pass		Clofentezine	< LOQ	0.010	0.010	pass	
Clothianidin	< LOQ	0.025	0.025	pass		Coumaphos	< LOQ	0.010	0.010	pass	
Cyantraniliprole	< LOQ	0.010	0.010	pass		Cyfluthrin	< LOQ	0.20	0.200	pass	
Cyhalothrin,lambda	< LOQ	0.0200	0.250	pass		Cypermethrin	< LOQ	0.30	0.300	pass	
Cyprodinil	< LOQ	0.010	0.010	pass		Daminozide	< LOQ	0.10	0.050	pass	
Deltamethrin	< LOQ	0.50	0.500	pass		Diazinon	< LOQ	0.020	0.010	pass	
Dichlorvos	< LOQ	0.050	0.050	pass		Dimethoate	< LOQ	0.010	0.010	pass	
Dimethomorph	< LOQ	0.050	0.050	pass		Dinotefuran	< LOQ	0.050	0.050	pass	
Diuron	< LOQ	0.125	0.125	pass		Dodemorph	< LOQ	0.050	0.050	pass	
Endosulfan I (alpha)	< LOQ	2.5	0.050	pass		Endosulfan II (beta)	< LOQ	2.5	0.050	pass	
Endosulfan sulfate	< LOQ	2.5	0.050	pass		Ethoprophos	< LOQ	0.010	0.010	pass	
Etofenprox	< LOQ	0.050	0.010	pass		Etozazole	< LOQ	0.020	0.010	pass	
Etridiazole	< LOQ	0.15	0.050	pass		Fenhexamid	< LOQ	0.13	0.100	pass	
Fenoxycarb	< LOQ	0.010	0.010	pass		Fenpyroximate	< LOQ	0.020	0.020	pass	
Fensulfothion	< LOQ	0.010	0.010	pass		Fenthion	< LOQ	0.010	0.010	pass	
Fenvalerate	< LOQ		0.200			Fipronil	< LOQ	0.010	0.010	pass	
Flonicamid	< LOQ	0.025	0.025	pass		Fludioxonil	< LOQ	0.010	0.010	pass	
Fluopyram	< LOQ	0.010	0.010	pass		Hexythiazox	< LOQ	0.010	0.010	pass	
Imazalil	< LOQ	0.010	0.010	pass		Imidacloprid	< LOQ	0.010	0.010	pass	
Iprodione	< LOQ	0.50	0.500	pass		Kinoprene	< LOQ	1.3	0.200	pass	
Kresoxim-methyl	< LOQ	0.15	0.010	pass		Malathion	< LOQ	0.010	0.010	pass	
Metalaxyl	< LOQ	0.010	0.010	pass		Methiocarb	< LOQ	0.010	0.010	pass	
Methomyl	< LOQ	0.025	0.025	pass		Methoprene	< LOQ	2.0	1.00	pass	
Mevinphos	< LOQ	0.025	0.025	pass		MGK-264	< LOQ	0.050	0.050	pass	
Myclobutanil	< LOQ	0.010	0.010	pass		Naled	< LOQ	0.10	0.100	pass	
Novaluron	< LOQ	0.025	0.025	pass		Oxamyl	< LOQ	1.5	0.500	pass	
Paclbutrazole	< LOQ	0.010	0.010	pass		Parathion-Methyl	< LOQ	0.050	0.030	pass	
Permethrin	< LOQ	0.50	0.040	pass		Phenothrin	< LOQ	0.050	0.025	pass	
Phosmet	< LOQ	0.020	0.010	pass		Piperonyl butoxide	< LOQ	1.3	0.200	pass	
Pirimicarb	< LOQ	0.010	0.010	pass		Prallethrin	< LOQ	0.050	0.050	pass	
Propiconazole	< LOQ	0.10	0.010	pass		Propoxur	< LOQ	0.010	0.010	pass	
Pyraclostrobin	< LOQ	0.010	0.010	pass		Pyrethrins (total)	< LOQ	0.050	0.025	pass	
Pyridaben	< LOQ	0.020	0.020	pass		Pyriproxyfen	< LOQ	0.0100	0.010	pass	
Quintozene	< LOQ	0.020	0.020	pass		Resmethrin	< LOQ	0.050	0.020	pass	
Spinetoram	< LOQ	0.010	0.010	pass		Spinosad	< LOQ	0.010	0.010	pass	
Spirodiclofen	< LOQ	0.25	0.250	pass		Spiromesifen	< LOQ	3.0	0.030	pass	
Spirotetramat	< LOQ	0.010	0.010	pass		Spiroxamine	< LOQ	0.10	0.010	pass	



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Pesticides											
Method: AOAC 2007.01 & EN 15662 (mod)						Units mg/kg	Batch 2207005	Analyze 08/18/22 02:59 PM			
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Tebuconazole	< LOQ	0.010	0.010	pass		Tebufenozide	< LOQ	0.010	0.010	pass	
Teflubenzuron	< LOQ	0.025	0.025	pass		Tetrachlorvinphos	< LOQ	0.010	0.010	pass	
Tetramethrin	< LOQ	0.10	0.050	pass		Thiacloprid	< LOQ	0.010	0.010	pass	
Thiamethoxam	< LOQ	0.010	0.010	pass		Thiophanate-Methyl	< LOQ	0.050	0.030	pass	
Trifloxystrobin	< LOQ	0.010	0.010	pass							

Metals										
Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method		Status	Notes	
Arsenic	< LOQ	1.50	mg/kg	0.0849	2207015	08/18/22	AOAC 2013.06 (mod.) ^P	pass		
Cadmium	< LOQ	0.50	mg/kg	0.0849	2207015	08/18/22	AOAC 2013.06 (mod.) ^P	pass		
Lead	< LOQ	0.50	mg/kg	0.0849	2207015	08/18/22	AOAC 2013.06 (mod.) ^P	pass		
Mercury	< LOQ	1.50	mg/kg	0.0424	2207015	08/18/22	AOAC 2013.06 (mod.) ^P	pass		

Mycotoxins										
Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method		Status	Notes	
Aflatoxin B2 [¶]	< LOQ	5.00	µg/kg	5.00	2207001	08/18/22	AOAC 2007.01 & EN 15662 (mod) ^P	pass		
Aflatoxin B1 [¶]	< LOQ	5.00	µg/kg	5.00	2207001	08/18/22	AOAC 2007.01 & EN 15662 (mod) ^P	pass		
Aflatoxin G1 [¶]	< LOQ	5.00	µg/kg	5.00	2207001	08/18/22	AOAC 2007.01 & EN 15662 (mod) ^P	pass		
Aflatoxin G2 [¶]	< LOQ	5.00	µg/kg	5.00	2207001	08/18/22	AOAC 2007.01 & EN 15662 (mod) ^P	pass		
Deoxynivalenol [¶]	< LOQ		µg/kg	200	2207001	08/18/22	AOAC 2007.01 & EN 15662 (mod) ^P			
Fumonisin B1 [¶]	< LOQ		µg/kg	200	2207001	08/18/22	AOAC 2007.01 & EN 15662 (mod) ^P			
Fumonisin B2 [¶]	< LOQ		µg/kg	200	2207001	08/18/22	AOAC 2007.01 & EN 15662 (mod) ^P			
HT2-Toxin [¶]	< LOQ		µg/kg	40.0	2207001	08/18/22	AOAC 2007.01 & EN 15662 (mod) ^P			
Ochratoxin A [¶]	< LOQ	5.00	µg/kg	5.00	2207001	08/18/22	AOAC 2007.01 & EN 15662 (mod) ^P	pass		
Ochratoxin B [¶]	< LOQ		µg/kg	2.00	2207001	08/18/22	AOAC 2007.01 & EN 15662 (mod) ^P			
T2-Toxin [¶]	< LOQ		µg/kg	20.0	2207001	08/18/22	AOAC 2007.01 & EN 15662 (mod) ^P			
Zearalenone [¶]	< LOQ		µg/kg	200	2207001	08/18/22	AOAC 2007.01 & EN 15662 (mod) ^P			