

CERTIFICATE OF ANALYSIS

PRODUCT NAME: Nano CBD Softgels
PRODUCT STRENGTH: 10 mg CBD
BATCH: 21348A
BEST BY DATE: 04/05/2023
BULK LOT: 21208

Click on the links to view third-party reports

Physical Attributes

Test	Method	Specification	Results
Color	Joy Internal	Golden to Amber	PASS
Odor	Joy Internal	No odor	PASS
Appearance	Joy Internal	Dry, ovoid softgel capsules in container with lid and shrink-band	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 10 mg / softgel	10.4 mg	PASS
Potency - D9-THC	HPLC-UV DAD	LOQ: >0.01% (broad spectrum)	Below LOQ	PASS
Expanded Pesticide Panel	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	Below LOQ	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	Below LOQ	PASS
Mycotoxins	ICP-MS	Total Aflatoxins <20 ppb† Aflatoxin B1 < 5 ppb Ochratoxin < 5ppb	Below LOQ	PASS
Residual Solvents	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	Below LOQ	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 Keegan Schlittler 12/21/2021
 Keegan Schlittler Date
 Quality Assurance Manager

certificate ID

1DF12

Nano Softgels 10mg

Lot# 21208

rec'd 4/7/2021 11:49:35 AM

prod. date 4/5/2021

order 10354



total cannabinoids

11.0mg

per

Gelcap

THC± ND

CBD± 10.4mg

This Product Has Been Tested and Complies with 7USC1639o(1)

Stillwater Laboratories



Potency	per	Gelcap	MSP-7.5.1.4	LOD	LOQ	error (95%CI k=2)	result
total cannabinoids			11.0mg	0.06	0.18	±0.38mg	
total THC±			ND	0.06	0.18	±0.18mg	
total THC (THC+THCa)			ND	0.06	0.18	±0.18mg	
total CBD±			10.4mg	0.06	0.18	±0.37mg	
total CBD (CBD+CBDA)			10.4mg	0.06	0.18	±0.37mg	
tetrahydrocannabinolic acid (THCa)			ND	0.06	0.19	±0.19mg	
Δ9-tetrahydrocannabinol (Δ9 THC)			ND	0.06	0.18	±0.18mg	
Δ8-tetrahydrocannabinol (Δ8 THC)			ND	0.08	0.24	±0.24mg	
tetrahydrocannabivarin (THCv)			ND	0.07	0.20	±0.20mg	
cannabidiolic acid (CBDA)			ND	0.05	0.16	±0.16mg	
cannabidiol (CBD)			10.4mg	0.06	0.19	±0.37mg	
cannabidivarin (CBDv)			ND	0.06	0.18	±0.18mg	
cannabigeronic acid (CBGa)			ND	0.06	0.17	±0.17mg	
cannabigerol (CBG)			0.6mg	0.02	0.05	±0.06mg	
cannabinol (CBN)			ND	0.03	0.10	±0.10mg	
cannabichromene (CBC)			ND	0.06	0.18	±0.18mg	

Microbial	MSP-7.5.1.10	limit	LOD	LOQ	error	result
E. coli	ND	0CFU	0.010	0.11	±0.1CFU	PASS
Salmonella sp.	ND	0CFU	0.010	0.11	±0.1CFU	PASS
molds	ND	10000CFU	2.51	7.41	±7.4CFU	PASS
Ochratoxin A	ND	20 ppb	0.51	1.4	±1.4 ppb	PASS
Aflatoxin B1B2G1G2	ND	20 ppb	0.51	1.5	±1.5 ppb	PASS

Solvents	MSP-7.5.1.7	limit	LOD	LOQ	error	result
Acetone	ND	5000 ppm	0.71	2.11	±2.1 ppm	PASS
Acetonitrile	ND	410 ppm	0.61	1.81	±1.8 ppm	PASS
Benzene	ND	0 ppm	0.010	0.1	±0.1 ppm	PASS
Butane	ND	5000 ppm	1.4	4.2	±4.2 ppm	PASS
Chloroform	ND	0 ppm	0.11	0.21	±0.2 ppm	PASS
Cyclohexane	ND	0 ppm	0.51	1.61	±1.6 ppm	PASS
Ethanol	ND	10000 ppm	0.71	2.11	±2.1 ppm	PASS
Heptane	ND	5000 ppm	0.41	1.21	±1.2 ppm	PASS
Hexane	ND	290 ppm	0.51	1.61	±1.6 ppm	PASS
Isopropyl alcohol	ND	5000 ppm	0.61	1.91	±1.9 ppm	PASS
Methanol	ND	3000 ppm	0.51	1.61	±1.6 ppm	PASS
Pentane	ND	5000 ppm	0.21	0.61	±0.6 ppm	PASS
Propane	ND	5000 ppm	0.51	1.61	±1.6 ppm	PASS
Toluene	ND	890 ppm	0.31	0.91	±0.9 ppm	PASS
Xylenes	ND	2170 ppm	0.31	1.01	±1.0 ppm	PASS

Metals	MSP-7.5.1.11	limit	LOD	LOQ	error	result
Arsenic	ND	1500 ppb	2.81	8.51	±8.5 ppb	PASS
Cadmium	ND	500 ppb	3.01	9.11	±9.1 ppb	PASS
Lead	ND	500 ppb	4.71	14.21	±14.2 ppb	PASS
Mercury	ND	300 ppb	2.41	7.11	±7.1 ppb	PASS

Pesticides	MSP-7.5.1.8	limit	LOD	LOQ	error	result
Pyrethrin	ND	1.00 ppm	0.003	0.009	±0.009 ppm	PASS
Pyridaben	ND	3.00 ppm	0.001	0.003	±0.003 ppm	PASS
Spinetoram	ND	3.00 ppm	0.004	0.012	±0.012 ppm	PASS
Spinosad	ND	3.00 ppm	0.008	0.023	±0.023 ppm	PASS
Spiromesifen	ND	12.00 ppm	0.004	0.011	±0.011 ppm	PASS
Spirotetramat	ND	13.00 ppm	0.003	0.008	±0.008 ppm	PASS
Spiroxamine	ND	0.00 ppm	0.001	0.003	±0.003 ppm	PASS
Tebuconazole	ND	2.00 ppm	0.006	0.017	±0.017 ppm	PASS
Thiacloprid	ND	0.10 ppm	0.001	0.004	±0.004 ppm	PASS
Thiamethoxam	ND	4.50 ppm	0.003	0.010	±0.010 ppm	PASS
Trifloxystrobin	ND	30.00 ppm	0.003	0.008	±0.008 ppm	PASS

Pesticides	MSP-7.5.1.8	limit	LOD	LOQ	error	result
Abamectin	ND	0.30 ppm	0.008	0.025	±0.025 ppm	PASS
Acephate	ND	5.00 ppm	0.009	0.026	±0.026 ppm	PASS
Acequinocyl	ND	4.00 ppm	0.007	0.022	±0.022 ppm	PASS
Acetamiprid	ND	5.00 ppm	0.006	0.018	±0.018 ppm	PASS
Aldicarb	ND	0.00 ppm	0.002	0.007	±0.007 ppm	PASS
Azoxystrobin	ND	40.00 ppm	0.002	0.007	±0.007 ppm	PASS
Bifenazate	ND	5.00 ppm	0.002	0.005	±0.005 ppm	PASS
Bifenthrin	ND	0.50 ppm	0.001	0.003	±0.003 ppm	PASS
Boscalid	ND	10.00 ppm	0.024	0.071	±0.071 ppm	PASS
Carbaryl	ND	0.50 ppm	0.009	0.028	±0.028 ppm	PASS
Carbofuran	ND	0.00 ppm	0.002	0.006	±0.006 ppm	PASS
Chlorantraniliprole	ND	40.00 ppm	0.023	0.068	±0.068 ppm	PASS
Chlorfenapyr	ND	0.00 ppm	0.006	0.018	±0.018 ppm	PASS
Chlorpyrifos	ND	0.00 ppm	0.047	0.141	±0.141 ppm	PASS
Clofentezine	ND	0.50 ppm	0.009	0.026	±0.026 ppm	PASS
Coumaphos	ND	0.00 ppm	0.006	0.018	±0.018 ppm	PASS
Cyfluthrin	ND	1.00 ppm	0.009	0.026	±0.026 ppm	PASS
Cypermethrin	ND	1.00 ppm	0.006	0.018	±0.018 ppm	PASS
Daminozide	ND	0.00 ppm	0.032	0.096	±0.096 ppm	PASS
Dichlorvos	ND	0.00 ppm	0.016	0.049	±0.049 ppm	PASS
Diazinon	ND	0.20 ppm	0.001	0.004	±0.004 ppm	PASS
Dimethoate	ND	0.00 ppm	0.002	0.007	±0.007 ppm	PASS
Etoxazole	ND	1.50 ppm	0.004	0.013	±0.013 ppm	PASS
Fenoxycarb	ND	0.00 ppm	0.004	0.012	±0.012 ppm	PASS
Fenpyroximate	ND	2.00 ppm	0.001	0.004	±0.004 ppm	PASS
Fipronil	ND	0.00 ppm	0.009	0.026	±0.026 ppm	PASS
Flonicamid	ND	2.00 ppm	0.114	0.341	±0.341 ppm	PASS
Fludioxonil	ND	30.00 ppm	0.008	0.023	±0.023 ppm	PASS
Hexythiazox	ND	2.00 ppm	0.001	0.003	±0.003 ppm	PASS
Imazalil	ND	0.00 ppm	0.008	0.023	±0.023 ppm	PASS
Imidacloprid	ND	3.00 ppm	0.001	0.004	±0.004 ppm	PASS
Malathion	ND	5.00 ppm	0.006	0.018	±0.018 ppm	PASS
Metalaxyl	ND	15.00 ppm	0.009	0.026	±0.026 ppm	PASS
Methiocarb	ND	0.00 ppm	0.004	0.013	±0.013 ppm	PASS
Methomyl	ND	0.10 ppm	0.001	0.002	±0.002 ppm	PASS
Methyl parathion	ND	0.00 ppm	0.001	0.004	±0.004 ppm	PASS
Mevinphos	ND	0.00 ppm	0.006	0.018	±0.018 ppm	PASS
Myclobutanil	ND	9.00 ppm	0.001	0.003	±0.003 ppm	PASS
Naled	ND	0.50 ppm	0.006	0.018	±0.018 ppm	PASS
Oxamyl	ND	0.20 ppm	0.003	0.008	±0.008 ppm	PASS
Pacllobutrazol	ND	0.00 ppm	0.003	0.010	±0.010 ppm	PASS
Permethrin	ND	20.00 ppm	0.011	0.034	±0.034 ppm	PASS
Phosmet	ND	0.20 ppm	0.003	0.010	±0.010 ppm	PASS
Piperonylbutoxide	ND	8.00 ppm	0.012	0.035	±0.035 ppm	PASS
Prallethrin	ND	0.40 ppm	0.004	0.013	±0.013 ppm	PASS
Propiconazole	ND	20.00 ppm	0.004	0.013	±0.013 ppm	PASS
Propoxur	ND	0.00 ppm	0.007	0.020	±0.020 ppm	PASS

SECURITY FEATURE: WATERMARK MUST MATCH CERTIFICATE ID AND ISSUE DATE

Certified by:



ISO/IEC 17025:2017



Certificate #4961.01

https://portal.a2la.org/scopepdf/4961-01.pdf

Kyle Larson, MSC
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QA Manager

Stillwater Laboratories Inc.

MT License L0001, L00007
6073 US93N Suite 5, Olney MT 59927
406-881-2019

Printed 4/13/2021 3:30 PM

INSTRUMENTS: Potency by HPLC (LC2030C-UV), solvents and terpenes by GCMS (QP2020HS20), pesticides and mycotoxins by LCMSMS (LC8060), microbial by qPCR (AriaMx) and plating (Hardy Diagnostics), metals by ICPMS (ICPMS-2030)

* All testing was completed onsite at 6073 US93N, Olney MT ** Potency (cannabinoid concentration) is calculated as: [cannabinoid] = [cannabinoid]_{HPLC} x volume_{0.1M NaOH} / M_{dry} ... Decarboxylated cannabinoid concentration is calculated XXX_{total} = 0.877 x XXX_a + XXX ... Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; LOD is the limit of detection (3.3s), LOQ is the limit of quantification (3xLOD), and experimental error is calculated from weighing, dilution, and interpolation error using the formula s_y² = Σ(∂f/∂i)²s_i² where i is the contributor to error. The 95% confidence range is calculated from: (concentration) ± t_{CL95} × S_y. Sampling error is not considered in error calculations. ND = not detected (< LOD), NT = not tested, NL = no limit, NA = not applicable. ‡ = decarbed

Prepared for:

JOY ORGANICS
SG10


Batch ID or Lot Number: 21348A	Test: Microbial Contaminants	Reported: 12/20/21	Location: 5042 Technology Parkway Ste. 50 FT. COLLINS, CO 80528
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Matrix: Finished Product	Test ID: T000182545	Started: 12/16/21	USDA License: N/A
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Status: N/A	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial (Colorado Panel)	Received: 12/15/2021 @ 12:42 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	


 Eden Thompson-Wright
 12/20/2021
 12:41:00 PM


 Brett Hudson
 12/20/2021
 5:31:00 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

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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Certificate #4329.02