

CERTIFICATE OF ANALYSIS

PRODUCT NAME: Full Spectrum Nano CBD Softgels
PRODUCT STRENGTH: 25mg CBD
BATCH: 230525B, 230629A, 231221A
BEST BY DATE: 6B9K247
HEMP EXTRACT LOT: SG25FS-23042101

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 25mg / softgel	28mg	PASS
Potency - D9-THC	HPLC-UV DAD	LOQ: <0.3% (full spectrum)	.86mg	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



 Name

6/22/2023

Date

Full Spectrum 25mg CBD Softgels

Batch ID or Lot Number: 230525B	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 2 of 6
Reported: 12May2023	Started: 12May2023	Received: 09May2023	


Cannabinoids - Colorado Compliance

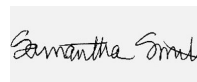
Test ID: T000243639

Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.057	0.171	1.210	2.34	# of Servings = 1 Sample Weight=0.516g
Cannabichromenic Acid (CBCA)	0.052	0.157	ND	ND	
Cannabidiol (CBD)	0.166	0.447	28.018	54.26	
Cannabidiolic Acid (CBDA)	0.170	0.458	ND	ND	
Cannabidivarin (CBDV)	0.039	0.106	0.205	0.40	
Cannabidivarinic Acid (CBDVA)	0.071	0.191	ND	ND	
Cannabigerol (CBG)	0.032	0.097	2.169	4.20	
Cannabigerolic Acid (CBGA)	0.135	0.406	ND	ND	
Cannabinol (CBN)	0.042	0.127	ND	ND	
Cannabinolic Acid (CBNA)	0.092	0.277	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.160	0.484	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.146	0.440	0.863	1.67	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.129	0.389	ND	ND	
Tetrahydrocannabivarin (THCV)	0.029	0.088	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.114	0.343	ND	ND	
Total Cannabinoids			32.465	62.87	
Total Potential THC			0.863	1.67	
Total Potential CBD			28.018	54.26	

Final Approval


 Karen Winternheimer
 13May2023
 12:32:00 PM MDT
 PREPARED BY / DATE


 Sam Smith
 13May2023
 12:34:00 PM MDT
 APPROVED BY / DATE

Full Spectrum 25mg CBD Softgels

Batch ID or Lot Number: 230525B	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 5 of 6
Reported: 12May2023	Started: 12May2023	Received: 09May2023	


Pesticides


Test ID: T000243640

Methods: TM17

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)		Dynamic Range (ppb)	Result (ppb)	
Abamectin	287 - 2721	ND		Malathion	280 - 2746	ND
Acephate	42 - 2676	ND		Metalaxyl	42 - 2748	ND
Acetamiprid	40 - 2706	ND		Methiocarb	44 - 2778	ND
Azoxystrobin	40 - 2722	ND		Methomyl	41 - 2741	ND
Bifenazate	41 - 2732	ND		MGK 264 1	171 - 1688	ND
Boscalid	40 - 2717	ND		MGK 264 2	116 - 1076	ND
Carbaryl	38 - 2735	ND		Myclobutanil	48 - 2749	ND
Carbofuran	40 - 2721	ND		Naled	39 - 2757	ND
Chlorantraniliprole	35 - 2741	ND		Oxamyl	41 - 2735	ND
Chlorpyrifos	39 - 2776	ND		Paclobutrazol	40 - 2710	ND
Clofentezine	282 - 2744	ND		Permethrin	298 - 2771	ND
Diazinon	275 - 2730	ND		Phosmet	42 - 2720	ND
Dichlorvos	256 - 2686	ND		Prophos	272 - 2737	ND
Dimethoate	40 - 2705	ND		Propoxur	42 - 2722	ND
E-Fenpyroximate	287 - 2791	ND		Pyridaben	303 - 2724	ND
Etofenprox	41 - 2746	ND		Spinosad A	33 - 2091	ND
Etoxazole	305 - 2725	ND		Spinosad D	70 - 671	ND
Fenoxycarb	10 - 2732	ND		Spiromesifen	287 - 2754	ND
Fipronil	31 - 2693	ND		Spirotetramat	267 - 2771	ND
Flonicamid	47 - 2768	ND		Spiroxamine 1	19 - 1199	ND
Fludioxonil	270 - 2725	ND		Spiroxamine 2	25 - 1549	ND
Hexythiazox	42 - 2755	ND		Tebuconazole	281 - 2741	ND
Imazalil	284 - 2751	ND		Thiacloprid	42 - 2674	ND
Imidacloprid	43 - 2757	ND		Thiamethoxam	40 - 2760	ND
Kresoxim-methyl	45 - 2766	ND		Trifloxystrobin	42 - 2709	ND

Final Approval


 Karen Winternheimer
 18May2023
 06:53:00 AM MDT
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 Sam Smith
 18May2023
 06:56:00 AM MDT
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Full Spectrum 25mg CBD Softgels


Batch ID or Lot Number: 230525B	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 3 of 6
Reported: 12May2023	Started: 12May2023	Received: 09May2023	


Microbial Contaminants - Colorado Compliance

Test ID: T000243641
Methods: TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)

	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


Brianne Maillot
14May2023
02:36:00 PM MDT
PREPARED BY / DATE



Eden Thompson-Wright
15May2023
09:32:00 AM MDT
APPROVED BY / DATE


Heavy Metals - Colorado Compliance

Test ID: T000243642
Methods: TM19 (ICP-MS): Heavy Metals

Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.05 - 4.78	ND	
Cadmium	0.05 - 4.90	ND	
Mercury	0.05 - 4.85	ND	
Lead	0.01 - 1.44	ND	

Final Approval


Sam Smith
16May2023
09:21:00 AM MDT
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Karen Winternheimer
16May2023
09:26:00 AM MDT
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Full Spectrum 25mg CBD Softgels


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**Residual Solvents -
Colorado Compliance**

Test ID: T000243643
Methods: TM04 (GC-MS): Residual

Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	98 - 1968	ND	
Butanes (Isobutane, n-Butane)	202 - 4040	ND	
Methanol	60 - 1193	ND	
Pentane	99 - 1989	ND	
Ethanol	98 - 1960	ND	
Acetone	99 - 1977	ND	
Isopropyl Alcohol	100 - 2010	ND	
Hexane	6 - 120	ND	
Ethyl Acetate	101 - 2015	ND	
Benzene	0.2 - 4.2	ND	
Heptanes	106 - 2124	ND	
Toluene	18 - 360	ND	
Xylenes (m,p,o-Xylenes)	132 - 2636	ND	

Final Approval


 Karen Winternheimer
 12May2023
 01:23:00 PM MDT
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 Sam Smith
 12May2023
 01:25:00 PM MDT
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Full Spectrum 25mg CBD Softgels


Batch ID or Lot Number: 230525B	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 4 of 6
Reported: 12May2023	Started: 12May2023	Received: 09May2023	

Mycotoxins - Colorado Compliance

Test ID: T000243644
Methods: TM18 (UHPLC-QQQ)
LCMS/MS: Mycotoxins

	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	3.79 - 128.00	ND	N/A
Aflatoxin B1	0.95 - 32.49	ND	
Aflatoxin B2	0.95 - 32.74	ND	
Aflatoxin G1	1.01 - 32.33	ND	
Aflatoxin G2	1.04 - 33.06	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval


 Sam Smith
 17May2023
 09:54:00 AM MDT
 PREPARED BY / DATE


 Karen Winternheimer
 17May2023
 09:56:00 AM MDT
 APPROVED BY / DATE