

CERTIFICATE OF ANALYSIS

PRODUCT NAME: Nano CBD Softgels with Melatonin
PRODUCT STRENGTH: 25 mg CBD / 3 mg Melatonin / 3mg CBN
TINCTURE BATCH: 5227
BEST BY DATE: 9/14/24

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	*NTL 25mg / softgel	28mg	PASS
Potency - D9-THC	HPLC-UV DAD	LOQ: <0.01% THC (Broad Spectrum)	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† Aflatoxin 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

Prepared for:
JOY ORGANICS

5042 Technology Parkway Ste. 500
FT. COLLINS, CO USA 80528

SG25M FG-Joy Organics BS w Melatonin

Batch ID or Lot Number: 3005	Test, Test ID and Methods: Various	Matrix: Finished Product	Page 2 of 2
Reported: 26Sep2022	Started: 23Sep2022	Received: 23Sep2022	


Cannabinoids - Colorado Compliance


Test ID: T000222464

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

Cannabinoid Analysis	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.049	0.163	ND	ND	# of Servings = 1 Sample Weight=0.62g
Cannabichromenic Acid (CBCA)	0.045	0.149	ND	ND	
Cannabidiol (CBD)	0.164	0.438	28.566	46.04	
Cannabidiolic Acid (CBDA)	0.169	0.449	ND	ND	
Cannabidivarin (CBDV)	0.039	0.104	<LOQ	0.16	
Cannabidivarinic Acid (CBDVA)	0.070	0.187	ND	ND	
Cannabigerol (CBG)	0.028	0.093	1.795	2.89	
Cannabigerolic Acid (CBGA)	0.116	0.387	ND	ND	
Cannabinol (CBN)	0.036	0.121	3.815	6.15	
Cannabinolic Acid (CBNA)	0.079	0.264	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.138	0.461	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.125	0.419	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.111	0.371	ND	ND	
Tetrahydrocannabivarin (THCV)	0.025	0.084	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.098	0.327	ND	ND	
Total Cannabinoids			34.275	55.24	
Total Potential THC			ND	ND	
Total Potential CBD			28.566	46.04	

Final Approval


Daniel Weidensaul
28Sep2022
01:47:00 PM MDT
PREPARED BY / DATE


Sam Smith
28Sep2022
01:54:00 PM MDT
APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/f7de8086-3913-41f7-bdb2-817c8891590f>

Definitions

LOD = Limit of Detection, ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation, PPB = Parts per Billion, % = % (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)). Fail equates to a concentration level of Delta 9-THC, on a dry weight basis, higher than 0.3 percent + or - the measurement uncertainty. Total Potential THC 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)). ALOQ = Above Limit Of Quantitation (defined by dynamic range of the method), CFU/g = Colony Forming Units per Gram. 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 SC Laboratories, Inc., in the condition it was received. SC Laboratories, Inc., 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 SC Laboratories, Inc. ISO/IEC 17025:2017 Accredited by A2LA. Some tests listed on this COA may not be within our scope of A2LA accreditation. Please visit [A2LA for more details](#).



Cert #4329.02
f7de8086391341f7bdb2817c8891590f.1

SG25M-BS w Melatonin


Batch ID or Lot Number: 3005	Test, Test ID and Methods: Various	Matrix: Unit Co	Page 5 of 6
Reported: 24Aug2022	Started: 24Aug2022	Received: 23Aug2022	


Mycotoxins - Colorado Compliance

Test ID: T000219047
Methods: TM18 (UHPLC-QQQ)
LCMS/MS: Mycotoxins

	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	2.21 - 135.30	ND	N/A
Aflatoxin B1	1.09 - 33.36	ND	
Aflatoxin B2	0.99 - 33.62	ND	
Aflatoxin G1	1.05 - 33.32	ND	
Aflatoxin G2	1.19 - 33.65	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval


Jacob Miller
30Aug2022
10:11:00 AM MDT
PREPARED BY / DATE



Sam Smith
30Aug2022
10:21:00 AM MDT
APPROVED BY / DATE

Microbial Contaminants - Colorado Compliance

Test ID: T000219044
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	<LLOQ	
Total Coliforms*	TM27: Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴	None Detected	

Final Approval


Brett Hudson
26Aug2022
03:15:00 PM MDT
PREPARED BY / DATE


Jacob Folkerts
26Aug2022
04:54:00 PM MDT
APPROVED BY / DATE

SG25M BS w Melatonin

Batch ID or Lot Number: 3005	Test, Test ID and Methods: Various	Matrix: Unit Co	Page 1 of 6
Reported: 24Aug2022	Started: 24Aug2022	Received: 23Aug2022	

Heavy Metals - Colorado Compliance


Test ID: T000219045

Methods: TM19 (ICP-MS): Heavy

Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.04 - 4.47	ND	
Cadmium	0.04 - 4.37	ND	
Mercury	0.04 - 4.44	ND	
Lead	0.04 - 4.48	ND	

Final Approval


Daniel Weidensaul
24Aug2022
04:48:00 PM MDT
PREPARED BY / DATE


Courtney Richards
24Aug2022
05:54:00 PM MDT
APPROVED BY / DATE

SG25M BS w Melatonin

Batch ID or Lot Number: 3005	Test, Test ID and Methods: Various	Matrix: Unit Co	Page 2 of 6
Reported: 24Aug2022	Started: 24Aug2022	Received: 23Aug2022	


**Residual Solvents -
Colorado Compliance**

Test ID: T000219046
Methods: TM04 (GC-MS): Residual

Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	72 - 1434	ND	
Butanes (Isobutane, n-Butane)	150 - 2992	ND	
Methanol	47 - 936	ND	
Pentane	78 - 1556	ND	
Ethanol	77 - 1534	ND	
Acetone	77 - 1532	ND	
Isopropyl Alcohol	81 - 1628	ND	
Hexane	5 - 94	ND	
Ethyl Acetate	77 - 1542	ND	
Benzene	0.2 - 3.2	ND	
Heptanes	81 - 1610	ND	
Toluene	14 - 276	ND	
Xylenes (m,p,o-Xylenes)	103 - 2056	ND	

Final Approval


 Jacob Miller
 25Aug2022
 05:08:00 PM MDT
 PREPARED BY / DATE


 Daniel Weidensaul
 25Aug2022
 05:08:00 PM MDT
 APPROVED BY / DATE

SG25M BS w Melatonin

Batch ID or Lot Number: 3005	Test, Test ID and Methods: Various	Matrix: Unit Co	Page 4 of 6
Reported: 24Aug2022	Started: 24Aug2022	Received: 23Aug2022	


Pesticides


Test ID: T000219043

Methods: TM17

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)		Dynamic Range (ppb)	Result (ppb)	
Abamectin	326 - 2612	ND		Malathion	278 - 2825	ND
Acephate	52 - 2697	ND		Metalaxyl	38 - 2779	ND
Acetamiprid	44 - 2694	ND		Methiocarb	48 - 2694	ND
Azoxystrobin	38 - 2757	ND		Methomyl	50 - 2686	ND
Bifenazate	48 - 2758	ND		MGK 264 1	139 - 1646	ND
Boscalid	57 - 2681	ND		MGK 264 2	116 - 1153	ND
Carbaryl	44 - 2755	ND		Myclobutanil	51 - 2644	ND
Carbofuran	40 - 2758	ND		Naled	51 - 2682	ND
Chlorantraniliprole	55 - 2676	ND		Oxamyl	45 - 2670	ND
Chlorpyrifos	46 - 2802	ND		Paclobutrazol	40 - 2792	ND
Clofentezine	276 - 2832	ND		Permethrin	330 - 2715	ND
Diazinon	289 - 2832	ND		Phosmet	40 - 2848	ND
Dichlorvos	308 - 2682	ND		Prophos	314 - 2690	ND
Dimethoate	47 - 2672	ND		Propoxur	41 - 2754	ND
E-Fenpyroximate	300 - 2780	ND		Pyridaben	290 - 2793	ND
Etofenprox	49 - 2713	ND		Spinosad A	35 - 2268	ND
Etoxazole	295 - 2780	ND		Spinosad D	62 - 488	ND
Fenoxycarb	42 - 2814	ND		Spiromesifen	307 - 2754	ND
Fipronil	2 - 2763	ND		Spirotetramat	333 - 2721	ND
Flonicamid	46 - 2720	ND		Spiroxamine 1	24 - 1156	ND
Fludioxonil	341 - 2606	ND		Spiroxamine 2	32 - 1528	ND
Hexythiazox	48 - 2764	ND		Tebuconazole	271 - 2876	ND
Imazalil	297 - 2797	ND		Thiacloprid	39 - 2704	ND
Imidacloprid	46 - 2646	ND		Thiamethoxam	43 - 2740	ND
Kresoxim-methyl	52 - 2807	ND		Trifloxystrobin	38 - 2805	ND

Final Approval


 Sam Smith
 29Aug2022
 05:25:00 PM MDT
 PREPARED BY / DATE


 Daniel Weidensaul
 29Aug2022
 05:28:00 PM MDT
 APPROVED BY / DATE

Prepared for:

JOY ORGANICS

5042 Technology Parkway Ste. 500
FT. COLLINS, CO USA 80528

SG25M FG-Joy Organics BS w Melatonin

Batch ID or Lot Number: 3005	Test, Test ID and Methods: Various	Matrix: Finished Product	Page 1 of 2
Reported: 26Sep2022	Started: 23Sep2022	Received: 23Sep2022	

Microbial Contaminants - Colorado Compliance

Test ID: T000222465

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
<i>Salmonella</i>	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



Jacob Folkerts
26Sep2022
01:48:00 PM MDT

PREPARED BY / DATE



Eden Thompson-Wright
26Sep2022
03:31:00 PM MDT

APPROVED BY / DATE