

# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** Joy Organics CBD Softgels  
**PRODUCT STRENGTH:** 25 mg CBD  
**BATCH:** 21305B  
**BEST BY DATE: HEMP:** 09/23/2023  
**EXTRACT LOT:** 21E0002753

*\*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
<b>Potency - Total CBD</b>	HPLC-UV DAD	*LOQ: ≥ 25 mg / softgel	<b>32.28 mg</b>	PASS
<b>Potency - D9-THC</b>	HPLC-UV DAD	LOQ: <0.01% (broad spectrum)	<b>ND</b>	PASS
<b>Expanded Pesticide Panel</b>	HPLC-QQQ	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>Below LOQ</b>	PASS
<b>Microbial</b> Escherichia coli (STEC)	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 **CFU/25	<b>Absent</b>	PASS
<b>Microbial</b> Salmonella	PCR	Complies with CDPHE 6 CCR 1010-21 - LOQ 1 CFU/25 gram	<b>Absent</b>	PASS
<b>Microbial</b> Yeast and Mold	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>2</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Coliforms*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>2</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Microbial</b> Total Aerobic Count*	Culture Plating	Complies with CDPHE 6 CCR 1010-21 - LOQ 10 <sup>3</sup> CFU/gram	<b>Below LOQ</b>	PASS
<b>Heavy Metals</b>	ICP-MS	Arsenic (As): ≤1.5 ppm† Cadmium (Cd): ≤0.5 ppm Lead (Pb): ≤0.5 ppm Mercury (Hg): ≤1.5 ppm	<b>Below LOQ</b>	PASS
<b>Mycotoxins</b>	ICP-MS	Total Aflatoxins <20 ppb†† Aflatoxin B1 < 5 ppb Ochratoxin < 5 ppb	<b>Below LOQ</b>	PASS
<b>Residual Solvents</b>	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR 1010-21 Industrial Hemp Extract	<b>Below LOQ</b>	PASS

\* Level of Quantification  
 \*\*CFU/g=Colony Forming Units per Gram  
 † Parts Per Million †† Part Per Billion

Values expressed using scientific notation.  
 Examples:  
 10<sup>2</sup>=100  
 10<sup>3</sup>=1,000

Quality Certified Kayla Kolber 11/09/2021  
 Kayla Kolber  
 Quality Assurance Technician Date

Prepared for:

**Joy Organics 25mg capsule**
**Lacore Nutraceuticals**

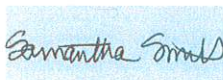
Batch ID or Lot Number: <b>21E0002753</b>	Test: <b>Potency</b>	Reported: <b>9/29/21</b>	Location: 1801 S. Industrial Park Van Alstyne, TX 75495
Matrix: Unit	Test ID: T000165890	Started: 9/28/21	USDA License: N/A
Status: N/A	Method: TM14 (HPLC-DAD): Potency – Standard Cannabinoid Analysis (Colorado Panel)	Received: 09/27/2021 @ 11:11 AM	Sampler ID: N/A

## CANNABINOID PROFILE

Compound	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.216	0.727	ND	ND	# of Servings = 1 Sample Weight=0.571g
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.244	0.820	ND	ND	
Cannabidiolic acid (CBDA)	0.306	0.775	ND	ND	
Cannabidiol (CBD)	0.298	0.756	32.305	56.54	
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.269	0.903	ND	ND	
Cannabinolic Acid (CBNA)	0.154	0.517	ND	ND	
Cannabinol (CBN)	0.070	0.237	ND	ND	
Cannabigerolic acid (CBGA)	0.226	0.758	ND	ND	
Cannabigerol (CBG)	0.054	0.181	2.044	3.58	
Tetrahydrocannabivarinic Acid (THCVA)	0.191	0.641	ND	ND	
Tetrahydrocannabivarin (THCV)	0.049	0.165	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.128	0.323	ND	ND	
Cannabidivarin (CBDV)	0.070	0.179	ND	ND	
Cannabichromenic Acid (CBCA)	0.087	0.292	ND	ND	
Cannabichromene (CBC)	0.095	0.319	ND	ND	
<b>Total Cannabinoids</b>			<b>34.349</b>	<b>60.12</b>	
Total Potential THC**			ND	ND	
Total Potential CBD**			32.305	56.54	



 Daniel Weidensaul  
 29-Sep-2021  
 01:41 PM



 Sam Smith  
 29-Sep-21  
 1:44 PM

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### Definitions

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

\* Indicates a value below the Limit of Quantitation (LOQ) and above the Limit of Detection (LOD).

\*\* Total Potential THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step.

$$\text{Total THC} = \text{THC} + (\text{THCa} \times (0.877)) \text{ and}$$

$$\text{Total CBD} = \text{CBD} + (\text{CBDa} \times (0.877))$$

Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.

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

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

Prepared for:

**Joy Organics 25mg capsule**
**Lacore Nutraceuticals**

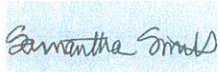
Batch ID or Lot Number: <b>21E0002753</b>	Test: <b>Pesticides</b>	Reported: <b>9/29/21</b>	Location: 1801 S. Industrial Park Van Alstyne, TX 75495
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Matrix: Concentrate	Test ID: t000165891	Started: 9/28/21	USDA License: N/A
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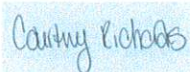
Status: N/A	Method: TM17(LC-QQQ LC MS/MS):	Received: 09/27/2021 @ 11:11 AM	Sampler ID: N/A
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### PESTICIDE DETERMINATION

Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)
Acephate	41	ND	Fenoxycarb	42	ND	Paclobutrazol	42	ND
Acetamiprid	40	ND	Fipronil	33	ND	Permethrin	287	ND
Avermectin	316	ND	Flonicamid	51	ND	Phosmet	43	ND
Azoxystrobin	43	ND	Fludioxonil	295	ND	Prophos	293	ND
Bifenazate	46	ND	Hexythiazox	47	ND	Propoxur	41	ND
Boscalid	54	ND	Imazalil	284	ND	Pyridaben	298	ND
Carbaryl	39	ND	Imidacloprid	42	ND	Spinosad A	35	ND
Carbofuran	41	ND	Kresoxim-methyl	150	ND	Spinosad D	54	ND
Chlorantraniliprole	53	ND	Malathion	299	ND	Spiromesifen	272	ND
Chlorpyrifos	500	ND	Metalaxyl	43	ND	Spirotetramat	305	ND
Clofentezine	285	ND	Methiocarb	42	ND	Spiroxamine 1	18	ND
Diazinon	290	ND	Methomyl	44	ND	Spiroxamine 2	24	ND
Dichlorvos	290	ND	MGK 264 1	160	ND	Tebuconazole	290	ND
Dimethoate	42	ND	MGK 264 2	136	ND	Thiacloprid	41	ND
E-Fenpyroximate	317	ND	Myclobutanil	40	ND	Thiamethoxam	43	ND
Etofenprox	44	ND	Naled	44	ND	Trifloxystrobin	43	ND
Etoazole	307	ND	Oxamyl	1500	ND			



 Sam Smith  
 9/29/2021  
 5:13:00 PM



 Courtney Richards  
 9/29/2021  
 7:12:00 PM

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#### Definitions

 LOQ = Limit of Quantification  
 ppb = Parts per Billion

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Certificate #4329.02

**SG25**


Batch ID or Lot Number: <b>21305B</b>	Test: <b>Microbial Contaminants</b>	Reported: <b>11/6/21</b>
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Matrix: Finished Product	Test ID: T000174189	Started: 11/3/21	USDA License: N/A
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Status: N/A	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial (Colorado Panel)	Received: 11/03/2021 @ 10:21 AM	Sampler ID: N/A
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**MICROBIAL CONTAMINANTS DETERMINATION**

Contaminant	Method	LOD	LLOQ	ULOQ	Result	Notes
<b>Total Aerobic Count*</b>	TM-26, Culture Plating	10 <sup>2</sup> CFU/g	10 <sup>3</sup> CFU/g	1.5x10 <sup>5</sup> CFU/g	None Detected	Free from visual mold, mildew, and foreign matter
<b>Total Coliforms*</b>	TM-27, Culture Plating	10 <sup>1</sup> CFU/g	10 <sup>2</sup> CFU/g	1.5x10 <sup>4</sup> CFU/g	None Detected	
<b>Total Yeast and Mold*</b>	TM-24, Culture Plating	10 <sup>1</sup> CFU/g	10 <sup>2</sup> CFU/g	1.5x10 <sup>4</sup> CFU/g	None Detected	
<b>E. coli (STEC)</b>	TM-25, PCR	1 CFU/25 g	NA	NA	Absent	
<b>Salmonella</b>	TM-25, PCR	1 CFU/25 g	NA	NA	Absent	

 Robert Belfon  
11/6/2021  
1:35:00 PM

 Courtney Richards  
11/6/2021  
11:12:00 PM

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**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: 10<sup>2</sup> = 100 CFU  
 10<sup>3</sup> = 1,000 CFU  
 10<sup>4</sup> = 10,000 CFU  
 10<sup>5</sup> = 100,000 CFU

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Prepared for:

**Joy Organics 25mg capsule**
**Lacore Nutraceuticals**

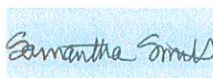
Batch ID or Lot Number: <b>21E0002753</b>	Test: <b>Metals</b>	Reported: <b>9/30/21</b>	Location: 1801 S. Industrial Park Van Alstyne, TX 75495
Matrix: Unit Co	Test ID: T000165893	Started: 9/29/21	USDA License: N/A
Status: N/A	Method: TM19 (ICP-MS): Heavy Metals (Colorado Panel)	Received: 09/27/2021 @ 11:11 AM	Sampler ID: N/A

### HEAVY METALS DETERMINATION

Compound	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.047 - 4.73	ND	
Cadmium	0.046 - 4.60	ND	
Mercury	0.044 - 4.38	ND	
Lead	0.048 - 4.76	ND	



 Ryan Weems  
 30-Sep-21  
 12:59 PM



 Sam Smith  
 30-Sep-21  
 1:02 PM

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#### Definitions

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Prepared for:

**Joy Organics 25mg capsule**
**Lacore Nutraceuticals**

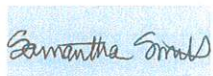
Batch ID or Lot Number: <b>21E0002753</b>	Test: <b>Mycotoxins</b>	Reported: <b>10/1/21</b>	Location: 1801 S. Industrial Park Van Alstyne, TX 75495
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Matrix: Concentrate	Test ID: T000165895	Started: 9/29/21	USDA License: N/A
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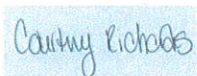
Status: N/A	Method: TM18 (UHPLC-QQQ LCMS/MS); Mycotoxins (Colorado Panel)	Received: 09/27/2021 @ 11:11 AM	Sampler ID: N/A
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### MYCOTOXIN DETERMINATION

Compound	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	1.8 - 131.9	ND	N/A
Aflatoxin B1	1.1 - 33.8	ND	
Aflatoxin B2	1.1 - 33.4	ND	
Aflatoxin G1	0.9 - 33.4	ND	
Aflatoxin G2	1.1 - 32.2	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	



 Sam Smith  
 30-Sep-21  
 11:46 AM



 Courtney Richards  
 1-Oct-21  
 8:35 AM

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#### Definitions

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

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Prepared for:

**Joy Organics 25mg capsule**
**Lacore Nutraceuticals**

Batch ID or Lot Number: <b>21E0002753</b>	Test: <b>Residual Solvents</b>	Reported: <b>9/29/21</b>	Location: 1801 S. Industrial Park Van Alstyne, TX 75495
Matrix: N/A	Test ID: T000165894	Started: 9/29/21	USDA License: N/A
Status: N/A	Methods: TM04 (GC-MS): Residual Solvents (Colorado Panel)	Received: 09/27/2021 @ 11:11 AM	Sampler ID: N/A

**RESIDUAL SOLVENTS DETERMINATION**

Solvent	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	103 - 2054	*ND	
Butanes (Isobutane, n-Butane)	207 - 4133	*ND	
Methanol	75 - 1493	*ND	
Pentane	108 - 2167	*ND	
Ethanol	116 - 2314	*ND	
Acetone	118 - 2351	*ND	
Isopropyl Alcohol	128 - 2555	*ND	
Hexane	7 - 145	*ND	
Ethyl Acetate	120 - 2394	*ND	
Benzene	0 - 5	*ND	
Heptanes	114 - 2273	*ND	
Toluene	22 - 431	*ND	
Xylenes (m,p,o-Xylenes)	156 - 3128	*ND	



 Daniel Weidensaul  
 29-Sep-21  
 7:33 PM



 Ryan Weems  
 29-Sep-21  
 7:35 PM

PREPARED BY / DATE

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**Definitions**

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

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