

# CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** Joy Organics Strawberry Lemonade Gummies - Kosher Certified  
**PRODUCT STRENGTH:** 10 mg CBD / gummy  
**BATCH:** J10SL02  
**BEST BY DATE: HEMP:** 08/2023  
**EXTRACT LOT:** CO325-003

*\*Click on the links to view third-party reports\**

### Physical Attributes

Test	Method	Specification	Results
Color	Joy Internal	Medium Pink	PASS
Odor	Joy Internal	Sweet, strawberry, lemon	PASS
Appearance	Joy Internal	Medium pink gummies with sugar coating in child proof container	PASS
Primary Package Eval.	Joy Internal	Container clean and free of filth. Container caps tight and seals intact	PASS
Secondary Package Eval.	Joy Internal	Labeling Compliance Checked, 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	*NLT 10 mg / gummy	<b>10.16 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 gram	<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 Panel</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 < 5ppb	<b>Below LOQ</b>	PASS
<b>Residual Solvents</b>	GC-HS-MSD	LOQ: Complies with CDPHE 6 CCR in effect during MFG*	<b>Below LOQ</b>	PASS

\* \*Level of Quantitation, † Parts Per Million ‡ Part Per Billion CFU/g=Colony Forming Units per Gram  
 \* Nothing Less Than Manufacture\*  
 10<sup>2</sup>=100 CFU  
 10<sup>3</sup>=1,000 CFU

Quality Certified

  
 Kayla Kolber  
 Quality Assurance Technician

08/18/2021

Date



C0325-003

7USC1639 Certificate of Analysis

sample ID 26419

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

Stillwater Laboratories

certificate ID 1CX18

total cannabinoids 87.39% per gram

THC total ND CBD total 82.44% terpenes

MSP-7.5.1.3

0.000

extract

order 10243 analysis date 3/26/2021 3:55:32 PM test tag 10243.3.4 sample wgt

- caryophyllene humulene terpinolene ocimene beta pinene alpha pinene limonene myrcene linalool



Inspection MSP-7.5.1.2

DESCRIPTION: Concentrate sample received in a client-labeled bottle, by commercial courier. Labeled 26419 and sample tag 10243.3.4.

Potency per gram

MSP-7.5.1.4 LOD LOQ error (95%CI k=2)

Table with 4 columns: Compound, Result, LOD, LOQ, Error. Rows include tetrahydrocannabinolic acid (THCa), Δ9-tetrahydrocannabinol (Δ9 THC), Δ8-tetrahydrocannabinol (Δ8 THC), tetrahydrocannabivarin (THCv), cannabidiolic acid (CBDa), cannabidiol (CBD), cannabidivarin (CBDv), cannabigerolic acid (CBGa), cannabigerol (CBG), cannabinalol (CBN), and cannabichromene (CBC).

Terpenes

MSP-7.5.1.6

MSP-7.5.1.6

‡ = decarbed NT = not tested NL = no limit, ND = not detected, LOD = detection limit, LOQ = quantitation limit

Microbial

MSP-7.5.1.10 limit

Metals

MSP-7.5.1.11 limit

Pesticides

MSP-7.5.1.8 limit

Pesticides

MSP-7.5.1.8 limit

Table with 4 columns: Microbial, Metals, Pesticides, Pesticides. Rows include E.coli, Salmonella sp., molds, Ochratoxin A, Aflatoxin, Arsenic, Cadmium, Lead, Mercury, Abamectin, Acephate, Acequinocyl, Acetamiprid, Aldicarb, Azoxystrobin, Bifenazate, Bifenthrin, Boscalid, Carbaryl, Carbofuran, Chloanthraniliprole, Chlorfenapyr, Chlorpyrifos, Clofentezine, Coumaphos, Cyfluthrin, Cypermethrin, Daminozide, Dichlorvos, Diazinon, Dimethoate, Etoxazole, Fenoxycarb, Fenpyroximate, Fipronil, Flonicamid, Fludioxonil, Hexythiazox, Imazalil, Imidacloprid, Malathion, Metalaxyl, Methiocarb, Methomyl, Methyl parathion, Mevinphos, Myclobutanil, Naled, Oxamyl, Paclobutrazol, and Permethrin.

Solvents

MSP-7.5.1.7 limit

Pesticides

MSP-7.5.1.8 limit

Table with 4 columns: Solvents, Pesticides, Pesticides, Pesticides. Rows include Acetone, Acetonitrile, Benzene, Butane, Chloroform, Cyclohexane, Ethanol, Heptane, Hexane, Isopropyl alcohol, Methanol, Pentane, Propane, Toluene, Xylenes, Permethrin, Phosmet, Piperonylbutoxide, Prallethrin, Propiconazole, Propoxur, Pyrethrin, Pyridaben, Spinetoram, Spinosad, Spiromesifen, Spirotetramat, Spiroxamine, Tebuconazole, Thiachloprid, Thiamethoxam, Trifloxystrobin, Chloanthraniliprole, Chlorfenapyr, Chlorpyrifos, Clofentezine, Coumaphos, Cyfluthrin, Cypermethrin, Daminozide, Dichlorvos, Diazinon, Dimethoate, Etoxazole, Fenoxycarb, Fenpyroximate, Fipronil, Flonicamid, Fludioxonil, Hexythiazox, Imazalil, Imidacloprid, Malathion, Metalaxyl, Methiocarb, Methomyl, Methyl parathion, Mevinphos, Myclobutanil, Naled, Oxamyl, Paclobutrazol, and Permethrin.

INSTRUMENTS potency: HPLC (LC2030C-UV) terpenes: GCMS (QP2020/HS20) solvents: GCMS (QP2020/HS20) pesticides: LCMSMS (LC8060) mycotoxins: LCMSMS (LC8060) microbial: qPCR (AriaMx) and plating metals: ICPMS (ICPMS-2030)

SECURITY FEATURE: WATERMARK MUST MATCH CERTIFICATE ID AND ISSUE DATE

Certified by:

[Signature]

Kyle Larson, MSc (Biology) Deputy Director

Stillwater Laboratories Inc. MT License L00001, 7, 8 6073 US93N Suite 5 Olney MT 59927 406-881-2019

Printed 3/31/2021 11:07 AM

The data in this report is the property of and is administered by Stillwater Labs. The format, layout, and security features of this report are copyrighted by Stillwater Laboratories Inc. © 2020



ISO/IEC 17025:2017

Certificate #4961.01

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

**GUMSL10**


Batch ID or Lot Number: **J10SL02**      Test: **Potency**      Reported: **8/17/21**


Matrix: Concentrate      Test ID: T000154928      Started: 8/12/21      USDA License: N/A

Status: N/A      Method: TM14 (HPLC-DAD): Potency - Broad Spectrum Analysis, 0.01% THC (Colorado Panel)      Received: 08/09/2021 @ 10:18 AM      Sampler ID: N/A

**CANNABINOID PROFILE**

Compound	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)	Notes
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.003	0.008	ND	ND	N/A
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.003	0.009	ND	ND	
Cannabidiolic acid (CBDA)	0.025	0.059	ND	ND	
Cannabidiol (CBD)	0.024	0.058	0.254	2.54	
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.019	0.061	ND	ND	
Cannabinolic Acid (CBNA)	0.011	0.035	ND	ND	
Cannabinol (CBN)	0.005	0.016	ND	ND	
Cannabigerolic acid (CBGA)	0.016	0.052	ND	ND	
Cannabigerol (CBG)	0.004	0.012	0.015	0.15	
Tetrahydrocannabivarinic Acid (THCVA)	0.013	0.044	ND	ND	
Tetrahydrocannabivarin (THCV)	0.003	0.011	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.010	0.025	ND	ND	
Cannabidivarin (CBDV)	0.006	0.014	ND	ND	
Cannabichromenic Acid (CBCA)	0.006	0.020	ND	ND	
Cannabichromene (CBC)	0.007	0.022	ND	ND	
<b>Total Cannabinoids</b>			<b>0.269</b>	<b>2.69</b>	
Total Potential THC**			ND	ND	
Total Potential CBD**			0.254	2.54	

 Daniel Weidensaul  
 17-Aug-2021  
 01:50 PM

 Taylor Brevik  
 17-Aug-21  
 1:56 PM

PREPARED BY / DATE

APPROVED BY / DATE

**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.

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

$$\text{Total CBD} = \text{CBD} + (\text{CBDA} * (0.877))$$

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.



CDPHE Certified



Certificate #4329.02

**GUMSL10**

Batch ID or Lot Number: **J10SL02**      Test: **Pesticides**      Reported: **8/16/21**

Matrix: Concentrate      Test ID: T000154929      Started: 8/13/21      USDA License: N/A

Status: N/A      Method: TM17(LC-QQQ LC MS/MS):      Received: 08/09/2021 @ 10:18 AM      Sampler ID: N/A

**PESTICIDE DETERMINATION**

Compound	LOQ (ppm)	Result (ppm)	Compound	LOQ (ppm)	Result (ppm)	Compound	LOQ (ppm)	Result (ppm)
Acephate	39	ND	Fenoxycarb	40	ND	Paclobutrazol	47	ND
Acetamiprid	42	ND	Fipronil	50	ND	Permethrin	290	ND
Avermectin	407	ND	Flonicamid	40	ND	Phosmet	44	ND
Azoxystrobin	45	ND	Fludioxonil	327	ND	Prophos	308	ND
Bifenazate	41	ND	Hexythiazox	33	ND	Propoxur	44	ND
Boscalid	45	ND	Imazalil	282	ND	Pyridaben	319	ND
Carbaryl	41	ND	Imidacloprid	41	ND	Spinosad A	36	ND
Carbofuran	44	ND	Kresoxim-methyl	150	ND	Spinosad D	53	ND
Chlorantraniliprole	50	ND	Malathion	300	ND	Spiromesifen	289	ND
Chlorpyrifos	500	ND	Metalaxyl	43	ND	Spirotetramat	283	ND
Clofentezine	273	ND	Methiocarb	43	ND	Spiroxamine 1	19	ND
Diazinon	295	ND	Methomyl	41	ND	Spiroxamine 2	26	ND
Dichlorvos	322	ND	MGK 264 1	167	ND	Tebuconazole	293	ND
Dimethoate	41	ND	MGK 264 2	118	ND	Thiacloprid	43	ND
E-Fenpyroximate	330	ND	Myclobutanil	44	ND	Thiamethoxam	41	ND
Etofenprox	45	ND	Naled	43	ND	Trifloxystrobin	45	ND
Etoxazole	305	ND	Oxamyl	1500	ND			

 Taylor Brevik  
8/16/2021  
1:51:00 PM

 Sam Smith  
8/16/2021  
2:01:00 PM

PREPARED BY / DATE

APPROVED BY / DATE

**Definitions**

LOQ = Limit of Quantification  
ppb = Parts per Billion

*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.*




Certificate #4329.02

**GUMSL10**


Batch ID or Lot Number: <b>J10SL02</b>	Test: <b>Microbial Contaminants</b>	Reported: <b>8/13/21</b>	
Matrix: Finished Product	Test ID: T000154930	Started: 8/9/21	USDA License: N/A
Status: N/A	Methods: TM25 (qPCR) TM24, TM26, TM27(Culture Plating): Microbial (Colorado Panel)	Received: 08/09/2021 @ 10:18 AM	Sampler ID: N/A

**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>2</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>2</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  
 8/13/2021  
 12:25:00 PM

PREPARED BY / DATE


 Jackson Osaghae-Nosa  
 8/13/2021  
 2:24:00 PM

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: 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

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.



CDPHE Certified




Certificate #4329.02

**GUMSL10**

Batch ID or Lot Number: <b>J10SL02</b>	Test: <b>Metals</b>	Reported: <b>8/13/21</b>	
Matrix: Unit Co	Test ID: T000154931	Started: 8/12/21	USDA License: N/A
Status: N/A	Method: TM19 (ICP-MS); Heavy Metals (Colorado Panel)	Received: 08/09/2021 @ 10:18 AM	Sampler ID: N/A

**HEAVY METALS DETERMINATION**

Compound	Dynamic Range (ppb)	Result (ppb)	Notes
Arsenic	0.044 - 4.39	ND	
Cadmium	0.048 - 4.78	ND	
Mercury	0.044 - 4.38	ND	
Lead	0.044 - 4.38	ND	


 Sam Smith  
 13-Aug-21  
 1:11 PM

PREPARED BY / DATE


 Daniel Weidensaul  
 13-Aug-21  
 1:14 PM

APPROVED BY / DATE

**Definitions**

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.*



CDPHE Certified




Certificate #4329.02

**GUMSL10**

Batch ID or Lot Number: <b>J10SL02</b>	Test: <b>Mycotoxins</b>	Reported: <b>8/17/21</b>	
Matrix: Concentrate	Test ID: T000154933	Started: 8/16/21	USDA License: N/A
Status: N/A	Method: TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins (Colorado Panel)	Received: 08/09/2021 @ 10:18 AM	Sampler ID: N/A

**MYCOTOXIN DETERMINATION**

Compound	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	4.5 - 132.5	ND	N/A
Aflatoxin B1	1 - 33.3	ND	
Aflatoxin B2	1.1 - 33.5	ND	
Aflatoxin G1	1.1 - 32.8	ND	
Aflatoxin G2	1.2 - 32.3	ND	
<b>Total Aflatoxins (B1, B2, G1, and G2)</b>		ND	

  
 Sam Smith  
 17-Aug-21  
 2:13 PM

  
 Courtney Richards  
 17-Aug-21  
 6:13 PM

PREPARED BY / DATE

APPROVED BY / DATE

**Definitions**

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.*



CDPHE Certified



Certificate #4329.02


**GUMSL10**

Batch ID or Lot Number: <b>J10SL02</b>	Test: <b>Residual Solvents</b>	Reported: <b>8/12/21</b>	
Matrix: N/A	Test ID: T000154932	Started: 8/11/21	USDA License: N/A
Status: N/A	Methods: TM04 (GC-MS): Residual Solvents (Colorado Panel)	Received: 08/09/2021 @ 10:18 AM	Sampler ID: N/A

**RESIDUAL SOLVENTS DETERMINATION**

Solvent	Dynamic Range (ppm)	Result (ppm)	Notes
<b>Propane</b>	92 - 1837	*ND	
<b>Butanes</b> (Isobutane, n-Butane)	172 - 3449	*ND	
<b>Methanol</b>	64 - 1277	*ND	
<b>Pentane</b>	94 - 1888	*ND	
<b>Ethanol</b>	101 - 2018	>2018	
<b>Acetone</b>	104 - 2077	*ND	
<b>Isopropyl Alcohol</b>	115 - 2293	*ND	
<b>Hexane</b>	6 - 128	*ND	
<b>Ethyl Acetate</b>	105 - 2108	*ND	
<b>Benzene</b>	0 - 4	*ND	
<b>Heptanes</b>	100 - 2004	*ND	
<b>Toluene</b>	19 - 381	*ND	
<b>Xylenes</b> (m,p,o-Xylenes)	141 - 2816	*ND	

 Karen Winternheimer  
12-Aug-21  
3:07 PM

 Ryan Weems  
12-Aug-21  
3:09 PM

PREPARED BY / DATE

APPROVED BY / DATE

**Definitions**

\* 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.



CDPHE Certified



Certificate #4329.02