



JOY ORGANICS

CERTIFICATE OF ANALYSIS

PRODUCT NAME: Organic Full Spectrum CBD Gummies (Raspberry Lemonade)

PRODUCT STRENGTH: 25mg CBD + 1mg THC / gummy

BATCH: 230613E, 240103A

BEST BY DATE: HEMP 5/1/2025

EXTRACT LOT: 4/32C/; 9/2827;

Physical Attributes

Test	Method	Specification	Results
Color	Joy Internal	Pink	PASS
Odor	Joy Internal	Sweet Raspberry and Lemon	PASS
Appearance	Joy Internal	Sugar Coated	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
Potency - Total CBD	HPLC-UV DAD	*NLT 25mg / gummy	27mg	PASS
Potency - D9-THC	HPLC-UV DAD	LOQ: <0.03% (full spectrum)	1.3mg	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 < 5 ppb	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

Manufacture*

10^2=100 CFU

10^3=1,000 CFU

Quality Certified

Name
Title

2519 S. Shields St. #1042, Fort Collins, CO 80526

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7/7/2023

Date

FO-106 Certificate of Analysis Rev.

1.1 - Effective Date: 6.28.2022



ORGANIC RASPBERRY LEMONADE | DATE ISSUED 05/27/2023

Cannabinoid Analysis

Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD).

Method: QSP 1157 - Analysis of Cannabinoids by HPLC-DAD

TOTAL THC: 1.368 mg/unitTotal THC (Δ^9 -THC+0.877*THCa)**TOTAL CBD: 27.641 mg/unit**

Total CBD (CBD+0.877*CBDa)

TOTAL CANNABINOIDs: 31.006 mg/unitTotal Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) + Δ^8 -THC + CBL + CBN**TOTAL CBG: 0.376 mg/unit**

Total CBG (CBG+0.877*CBGa)

TOTAL THCV: ND

Total THCV (THCV+0.877*THCVa)

TOTAL CBC: 1.029 mg/unit

Total CBC (CBC+0.877*CBCa)

TOTAL CBDV: 0.432 mg/unit

Total CBDV (CBDV+0.877*CBDVa)

CANNABINOID TEST RESULTS - 05/08/2023

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBD	0.004 / 0.011	±0.2194	5.881	0.5881
Δ^9 -THC	0.002 / 0.014	±0.0160	0.291	0.0291
CBC	0.003 / 0.010	±0.0071	0.219	0.0219
CBDV	0.002 / 0.012	±0.0038	0.092	0.0092
CBG	0.002 / 0.006	±0.0039	0.080	0.0080
CBN	0.001 / 0.007	±0.0010	0.034	0.0034
Δ^8 -THC	0.01 / 0.02	N/A	ND	ND
THCa	0.001 / 0.005	N/A	ND	ND
THCV	0.002 / 0.012	N/A	ND	ND
THCVa	0.002 / 0.019	N/A	ND	ND
CBDa	0.001 / 0.026	N/A	ND	ND
CBDVa	0.001 / 0.018	N/A	ND	ND
CBGa	0.002 / 0.007	N/A	ND	ND
CBL	0.003 / 0.010	N/A	ND	ND
CBCa	0.001 / 0.015	N/A	ND	ND
Total THC		±0.0160	0.291	0.0291
SUM OF CANNABINOIDs			6.597 mg/g	0.6597%

Unit Mass: 4.7 grams per Unit / Serving Size: 4.7 grams per Serving

Δ^9 -THC per Unit	1.368 mg/unit
Δ^9 -THC per Serving	1.368 mg/serving
Total THC per Unit	1.368 mg/unit
Total THC per Serving	1.368 mg/serving
CBD per Unit	27.641 mg/unit
CBD per Serving	27.641 mg/serving
Total CBD per Unit	27.641 mg/unit
Total CBD per Serving	27.641 mg/serving
Sum of Cannabinoids per Unit	31.006 mg/unit
Sum of Cannabinoids per Serving	31.006 mg/serving
Total Cannabinoids per Unit	31.006 mg/unit
Total Cannabinoids per Serving	31.006 mg/serving



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Pesticide Analysis

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS).

*GC-MS utilized where indicated.

Method: QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS or QSP 1213 - Analysis of Pesticides by GC-MS

PESTICIDE TEST RESULTS - 05/11/2023 PASS

COMPOUND	LOD/LOQ ($\mu\text{g/g}$)	ACTION LIMIT ($\mu\text{g/g}$)	MEASUREMENT UNCERTAINTY ($\mu\text{g/g}$)	RESULT ($\mu\text{g/g}$)	RESULT
Abamectin	0.032 / 0.097	0.25	N/A	ND	PASS
Acephate	0.006 / 0.018	0.05	N/A	ND	PASS
Acequinocyl	0.009 / 0.027	\geq LOQ	N/A	<LOQ	PASS
Acetamiprid	0.016 / 0.049	0.05	N/A	ND	PASS
Aldicarb	0.030 / 0.090	0.5	N/A	ND	PASS
Allethrin	0.030 / 0.092	0.1	N/A	ND	PASS
Atrazine	0.006 / 0.019	\geq LOQ	N/A	ND	PASS
Azadirachtin	0.082 / 0.248	0.5	N/A	ND	PASS
Azoxystrobin	0.003 / 0.009	0.01	N/A	ND	PASS
Benzovindiflupyr	0.003 / 0.009	0.01	N/A	ND	PASS
Bifenazate	0.003 / 0.009	0.01	N/A	ND	PASS
Bifenthrin	0.021 / 0.064	\geq LOQ	N/A	ND	PASS
Boscalid	0.003 / 0.009	0.01	N/A	ND	PASS
Buprofezin	0.006 / 0.019	\geq LOQ	N/A	ND	PASS
Carbaryl	0.007 / 0.020	0.025	N/A	ND	PASS
Carbofuran	0.003 / 0.008	0.01	N/A	ND	PASS
Chlorantraniliprole	0.006 / 0.018	\geq LOQ	N/A	ND	PASS
Chlorfenapyr*	0.005 / 0.015	1.5	N/A	ND	PASS
Chlorpyrifos	0.013 / 0.039	0.5	N/A	ND	PASS
Clofentezine	0.003 / 0.009	0.01	N/A	ND	PASS
Clothianidin	0.008 / 0.025	0.025	N/A	ND	PASS
Coumaphos	0.003 / 0.010	0.01	N/A	ND	PASS
Cyantraniliprole	0.003 / 0.010	0.01	N/A	ND	PASS
Cyfluthrin	0.052 / 0.159	\geq LOQ	N/A	ND	PASS
Cypermethrin	0.051 / 0.153	\geq LOQ	N/A	ND	PASS
Cyprodinil	0.003 / 0.008	0.01	N/A	ND	PASS
Daminozide	0.026 / 0.077	\geq LOQ	N/A	ND	PASS
Deltamethrin	0.059 / 0.180	\geq LOQ	N/A	ND	PASS
Diazinon	0.006 / 0.017	\geq LOQ	N/A	ND	PASS
Dichlorvos (DDVP)	0.012 / 0.038	0.05	N/A	ND	PASS
Dimethoate	0.003 / 0.009	0.01	N/A	ND	PASS
Dimethomorph	0.016 / 0.050	\geq LOQ	N/A	ND	PASS
Dinotefuran	0.010 / 0.030	0.05	N/A	ND	PASS
Diuron	0.013 / 0.040	\geq LOQ	N/A	ND	PASS
Dodemorph	0.012 / 0.035	\geq LOQ	N/A	ND	PASS
Endosulfan sulfate	0.016 / 0.048	2.5	N/A	ND	PASS
Endosulfan-II *	0.004 / 0.014	2.5	N/A	ND	PASS
Endosulfan-II *	0.006 / 0.019	2.5	N/A	ND	PASS
Ethoprophos	0.003 / 0.009	0.01	N/A	ND	PASS
Etofenprox	0.014 / 0.042	\geq LOQ	N/A	ND	PASS
Etoxazole	0.007 / 0.020	\geq LOQ	N/A	ND	PASS

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Pesticide Analysis *Continued*PESTICIDE TEST RESULTS - 05/11/2023 *continued* PASS

COMPOUND	LOD/LOQ ($\mu\text{g/g}$)	ACTION LIMIT ($\mu\text{g/g}$)	MEASUREMENT UNCERTAINTY ($\mu\text{g/g}$)	RESULT ($\mu\text{g/g}$)	RESULT
Etridiazole*	0.002 / 0.005	0.15	N/A	ND	PASS
Fenhexamid	0.003 / 0.008	\geq LOQ	N/A	ND	PASS
Fenoxy carb	0.003 / 0.010	0.01	N/A	ND	PASS
Fenpyroximate	0.007 / 0.020	\geq LOQ	N/A	ND	PASS
Fensulfothion	0.003 / 0.010	0.01	N/A	ND	PASS
Fenthion	0.003 / 0.010	0.01	N/A	ND	PASS
Fenvaerate	0.033 / 0.099	\geq LOQ	N/A	ND	PASS
Fipronil	0.003 / 0.010	0.01	N/A	ND	PASS
Flonicamid	0.007 / 0.022	0.025	N/A	ND	PASS
Fludioxonil	0.003 / 0.010	0.01	N/A	ND	PASS
Fluopyram	0.003 / 0.009	0.01	N/A	ND	PASS
Hexythiazox	0.003 / 0.010	\geq LOQ	N/A	ND	PASS
Imazalil	0.003 / 0.009	0.01	N/A	ND	PASS
Imidacloprid	0.003 / 0.010	0.01	N/A	ND	PASS
Iprodione	0.077 / 0.233	0.5	N/A	ND	PASS
Kinoprene	0.077 / 0.233	1.25	N/A	ND	PASS
Kresoxim-methyl	0.006 / 0.019	0.15	N/A	ND	PASS
α -Cyhalothrin	0.068 / 0.206	\geq LOQ	N/A	ND	PASS
Malathion	0.003 / 0.009	0.01	N/A	ND	PASS
Metalaxy	0.003 / 0.010	0.01	N/A	ND	PASS
Methiocarb	0.003 / 0.008	0.01	N/A	ND	PASS
Methomyl	0.008 / 0.025	0.025	N/A	ND	PASS
Methoprene	0.172 / 0.521	\geq LOQ	N/A	ND	PASS
Mevinphos	0.008 / 0.024	0.025	N/A	ND	PASS
MGK-264	0.015 / 0.047	\geq LOQ	N/A	ND	PASS
Myclobutanil	0.003 / 0.009	0.01	N/A	ND	PASS
Naled	0.021 / 0.064	\geq LOQ	N/A	ND	PASS
Novaluron	0.002 / 0.005	0.025	N/A	ND	PASS
Oxamyl	0.017 / 0.051	1.5	N/A	ND	PASS
Paclobutrazol	0.003 / 0.010	0.01	N/A	ND	PASS
Parathion-methyl	0.016 / 0.050	\geq LOQ	N/A	ND	PASS
Pentachloronitrobenzene*	0.004 / 0.012	\geq LOQ	N/A	ND	PASS
Permethrin	0.056 / 0.168	\geq LOQ	N/A	ND	PASS
Phenothrin	0.016 / 0.047	\geq LOQ	N/A	ND	PASS
Phosmet	0.007 / 0.020	\geq LOQ	N/A	ND	PASS
Piperonyl Butoxide	0.010 / 0.029	1.25	N/A	ND	PASS
Pirimicarb	0.003 / 0.009	0.01	N/A	ND	PASS
Prallethrin	0.015 / 0.046	\geq LOQ	N/A	ND	PASS
Propiconazole	0.027 / 0.080	\geq LOQ	N/A	ND	PASS
Propoxur	0.003 / 0.008	0.01	N/A	ND	PASS
Pyraclostrobin	0.003 / 0.010	0.01	N/A	ND	PASS

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Pesticide Analysis *Continued*PESTICIDE TEST RESULTS - 05/11/2023 *continued* PASS

COMPOUND	LOD/LOQ ($\mu\text{g/g}$)	ACTION LIMIT ($\mu\text{g/g}$)	MEASUREMENT UNCERTAINTY ($\mu\text{g/g}$)	RESULT ($\mu\text{g/g}$)	RESULT
Pyrethrins	0.016 / 0.049	\geq LOQ	N/A	ND	PASS
Pyridaben	0.005 / 0.017	0.02	N/A	ND	PASS
Pyriproxyfen	0.003 / 0.009	\geq LOQ	N/A	ND	PASS
Resmethrin	0.013 / 0.039	0.05	N/A	ND	PASS
Spinetoram	0.003 / 0.010	0.01	N/A	ND	PASS
Spinosad	0.003 / 0.010	0.01	N/A	ND	PASS
Spirodiclofen	0.031 / 0.093	\geq LOQ	N/A	ND	PASS
Spiromesifen	0.016 / 0.050	\geq LOQ	N/A	ND	PASS
Spirotetramat	0.003 / 0.010	0.01	N/A	ND	PASS
Spiroxamine	0.020 / 0.062	\geq LOQ	N/A	ND	PASS
Tebuconazole	0.003 / 0.010	0.01	N/A	ND	PASS
Tebufenozide	0.003 / 0.008	0.01	N/A	ND	PASS
Teflubenzuron	0.007 / 0.022	0.025	N/A	ND	PASS
Tetrachlorvinphos	0.003 / 0.008	0.01	N/A	ND	PASS
Tetramethrin	0.021 / 0.063	\geq LOQ	N/A	ND	PASS
Thiabendazole	0.006 / 0.020	\geq LOQ	N/A	ND	PASS
Thiacloprid	0.003 / 0.009	0.01	N/A	ND	PASS
Thiamethoxam	0.003 / 0.010	0.01	N/A	ND	PASS
Thiophanate-methyl	0.013 / 0.040	\geq LOQ	N/A	ND	PASS
Trifloxystrobin	0.003 / 0.009	0.01	N/A	ND	PASS



Mycotoxin Analysis

MYCOTOXIN TEST RESULTS - 05/24/2023 PASS

COMPOUND	LOD/LOQ ($\mu\text{g/kg}$)	ACTION LIMIT ($\mu\text{g/kg}$)	MEASUREMENT UNCERTAINTY ($\mu\text{g/kg}$)	RESULT ($\mu\text{g/kg}$)	RESULT
Aflatoxin B1	1.6 / 5.0	5	N/A	ND	PASS
Aflatoxin B2	1.4 / 4.1		N/A	ND	
Aflatoxin G1	1.6 / 4.9		N/A	ND	
Aflatoxin G2	1.6 / 5.0		N/A	ND	
Total Aflatoxin		20		ND	PASS
Ochratoxin A	1.6 / 5.0	5	N/A	ND	PASS

Mycotoxin analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS).

Method: QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS



Residual Solvents Analysis

Continued

RESIDUAL SOLVENTS TEST RESULTS - 05/05/2023 continued PASS

COMPOUND	LOD/LOQ ($\mu\text{g/g}$)	ACTION LIMIT ($\mu\text{g/g}$)	MEASUREMENT UNCERTAINTY ($\mu\text{g/g}$)	RESULT ($\mu\text{g/g}$)	RESULT
3-Methylhexane	0.235 / 0.785		N/A	ND	
3-Ethylpentane	0.304 / 1.012		N/A	ND	
n-Heptane	13.12 / 43.72		N/A	ND	
Total Heptanes		1000		ND	PASS
Benzene	0.089 / 0.295	2	N/A	ND	PASS
Toluene	0.115 / 0.382	180	N/A	ND	PASS
1,3-Dimethylbenzene / 1,4-Dimethylbenzene	0.451 / 1.502		N/A	ND	
1,2-Dimethylbenzene (o-Xylene)	0.387 / 1.289		N/A	ND	
Total Xylenes		430		ND	PASS
Methanol	53.92 / 163.4	600	N/A	ND	PASS
Ethanol	8.984 / 27.23	1000	N/A	ND	PASS
2-Propanol (Isopropyl Alcohol)	8.421 / 25.52	1000	N/A	ND	PASS
Acetone	10.59 / 32.08	1000	N/A	ND	PASS
Ethyl Acetate	1.123 / 3.745	1000	N/A	ND	PASS



Heavy Metals Analysis

Heavy metal analysis utilizing inductively coupled plasma-mass spectrometry (ICP-MS).

Method: SP 1160 - Analysis of Heavy Metals by ICP-MS

HEAVY METALS TEST RESULTS - 05/04/2023 PASS

COMPOUND	LOD/LOQ ($\mu\text{g/g}$)	ACTION LIMIT ($\mu\text{g/g}$)	MEASUREMENT UNCERTAINTY ($\mu\text{g/g}$)	RESULT ($\mu\text{g/g}$)	RESULT
Arsenic	0.02 / 0.1	1.5	N/A	ND	PASS
Cadmium	0.02 / 0.05	0.5	N/A	ND	PASS
Lead	0.04 / 0.1	0.5	N/A	ND	PASS
Mercury	0.002 / 0.01	1.5	N/A	ND	PASS

Organic Raspberry Lemonade Gummies

Batch ID or Lot Number: 230613E	Test: Microbial Contaminants	Reported: 26Jun2023	USDA License: N/A
Matrix: Finished Product	Test ID: T000246729	Started: 21Jun2023	Sampler ID: N/A
	Method(s): TM25 (qPCR) TM24, TM26, TM27 (Culture Plating): Microbial (Colorado Panel)	Received: 20Jun2023	Status: Active

Microbial

Contaminants

Contaminants	Method	LOD	Quantitation		Notes
			Range	Result	
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



 Eden Thompson-Wright
 26Jun2023
 09:58:00 AM MDT

PREPARED BY / DATE



APPROVED BY / DATE

 Brianne Maillot
 26Jun2023
 04:56:00 PM MDT

<https://results.botanacor.com/api/v1/coas/uuid/15e970c2-0883-4d77-90ee-92e026c328ee>

Definitions

* 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
 CFU/g = Colony Forming Units per Gram, LOD = Limit of Detection
 ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation
 STEC = Shiga Toxin-Producing E. coli

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.

