

SAMPLE NAME: R&R 30mg Broad Spectrum THC-Free CBD Infused Gummy

Infused, Hemp Infused

CULTIVATOR / MANUFACTURER
Business Name:
License Number:
Address:
DISTRIBUTOR / TESTED FOR
Business Name: R&R CBD

License Number:
Address:
SAMPLE DETAIL
Batch Number: Lot 2804B

Sample ID: 230517L014

Date Collected: 05/17/2023

Date Received: 05/17/2023

Batch Size:
Sample Size: 1.0 units

Unit Mass: 9.1 grams per Unit

Serving Size: 9.1 grams per Serving


Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY
Total THC: **Not Detected**
Total CBD: **33.197 mg/unit**
Sum of Cannabinoids: **33.743 mg/unit**
Total Cannabinoids: **33.743 mg/unit**

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

$$\text{Total THC} = \Delta^9\text{-THC} + (\text{THCa} (0.877))$$

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

$$\text{Sum of Cannabinoids} = \Delta^9\text{-THC} + \text{THCa} + \text{CBD} + \text{CBDa} + \text{CBG} + \text{CBGa} +$$

$$\text{THCV} + \text{THCVa} + \text{CBC} + \text{CBCa} + \text{CBDV} + \text{CBDVa} + \Delta^8\text{-THC} + \text{CBL} + \text{CBN}$$

$$\text{Total Cannabinoids} = (\Delta^9\text{-THC} + 0.877 * \text{THCa}) + (\text{CBD} + 0.877 * \text{CBDa}) +$$

$$(\text{CBG} + 0.877 * \text{CBGa}) + (\text{THCV} + 0.877 * \text{THCVa}) + (\text{CBC} + 0.877 * \text{CBCa}) +$$

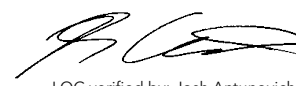
$$(\text{CBDV} + 0.877 * \text{CBDVa}) + \Delta^8\text{-THC} + \text{CBL} + \text{CBN}$$
SAFETY ANALYSIS - SUMMARY
Pesticides: **✓PASS**
Mycotoxins: **✓PASS**
Residual Solvents: **✓PASS**
Heavy Metals: **✓PASS**
Microbiology (PCR): **✓PASS**
Microbiology (Plating): **✓PASS**

For quality assurance purposes. Not a Regulatory Hemp Lab Test Report. These results relate only to the sample included on this report. This report shall not be reproduced, except in full, without written approval of the laboratory.

Sample Certification: Action Limits used in this report are a compilation of guidance from state regulatory agencies in all states except Alaska. Action limits for required tests are the lower of any conflicting state regulations.

Decision Rule: Statements of conformity (e.g. Pass/Fail) to specifications are made in this report without taking measurement uncertainty into account. Where statements of conformity are made in this report, the following decision rules are applied: PASS - Results within limits/specifications, FAIL - Results exceed limits/specifications.

References: limit of detection (LOD), limit of quantification (LOQ), not detected (ND), not tested (NT), too numerous to count >250 cfu/plate (TNTC), colony-forming unit (cfu)



LQC verified by: Josh Antunovich
Job Title: Laboratory Director
Date: 06/05/2023



Approved by: Josh Wurzer
Job Title: Chief Compliance Officer
Date: 06/05/2023




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: **Not Detected**

Total THC (Δ^9 -THC+0.877*THCa)

TOTAL CBD: **33.197 mg/unit**

Total CBD (CBD+0.877*CBDA)

TOTAL CANNABINOIDS: **33.743 mg/unit**

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) + Δ^8 -THC + CBL + CBN

TOTAL CBG: **0.109 mg/unit**

Total CBG (CBG+0.877*CBGa)

TOTAL THCV: **ND**

Total THCV (THCV+0.877*THCVa)

TOTAL CBC: **0.191 mg/unit**

Total CBC (CBC+0.877*CBCa)

TOTAL CBDV: **0.127 mg/unit**

Total CBDV (CBDV+0.877*CBDVa)

CANNABINOID TEST RESULTS - 05/17/2023

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBD	0.004 / 0.011	±0.1361	3.648	0.3648
CBC	0.003 / 0.010	±0.0007	0.021	0.0021
CBDV	0.002 / 0.012	±0.0006	0.014	0.0014
CBN	0.001 / 0.007	±0.0004	0.013	0.0013
CBG	0.002 / 0.006	±0.0006	0.012	0.0012
CBDA	0.001 / 0.026	N/A	<LOQ	<LOQ
Δ^9 -THC	0.002 / 0.014	N/A	ND	ND
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
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
SUM OF CANNABINOIDS			3.708 mg/g	0.3708%

Unit Mass: 9.1 grams per Unit / Serving Size: 9.1 grams per Serving

Δ^9 -THC per Unit	ND
Δ^9 -THC per Serving	ND
Total THC per Unit	ND
Total THC per Serving	ND
CBD per Unit	33.197 mg/unit
CBD per Serving	33.197 mg/serving
Total CBD per Unit	33.197 mg/unit
Total CBD per Serving	33.197 mg/serving
Sum of Cannabinoids per Unit	33.743 mg/unit
Sum of Cannabinoids per Serving	33.743 mg/serving
Total Cannabinoids per Unit	33.743 mg/unit
Total Cannabinoids per Serving	33.743 mg/serving



Pesticide Analysis

PESTICIDE TEST RESULTS - 06/02/2023 ✔ PASS

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

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Abamectin	0.032 / 0.097	0.07	N/A	ND	PASS
Acephate	0.006 / 0.018	0.05	N/A	ND	PASS
Acequinocyl	0.009 / 0.027	0.03	N/A	ND	PASS
Acetamiprid	0.016 / 0.049	0.05	N/A	ND	PASS
Aldicarb	0.030 / 0.090	0.1	N/A	ND	PASS
Allethrin	0.030 / 0.092	0.1	N/A	ND	PASS
Atrazine	0.006 / 0.019	0.025	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	0.2	N/A	ND	PASS
Boscalid	0.003 / 0.009	0.01	N/A	ND	PASS
Buprofezin	0.006 / 0.019	0.02	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	0.02	N/A	ND	PASS
Chlorfenapyr*	0.005 / 0.015	0.1	N/A	ND	PASS
Chlorpyrifos	0.013 / 0.039	0.04	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	0.1	N/A	ND	PASS
Cypermethrin	0.051 / 0.153	0.3	N/A	ND	PASS
Cyprodinil	0.003 / 0.008	0.01	N/A	ND	PASS
Daminozide	0.026 / 0.077	0.1	N/A	ND	PASS
Deltamethrin	0.059 / 0.180	0.5	N/A	ND	PASS
Diazinon	0.006 / 0.017	0.02	N/A	ND	PASS
Dichlorvos (DDVP)	0.012 / 0.038	0.1	N/A	ND	PASS
Dimethoate	0.003 / 0.009	0.1	N/A	ND	PASS
Dimethomorph	0.016 / 0.050	0.05	N/A	ND	PASS
Dinotefuran	0.010 / 0.030	0.05	N/A	ND	PASS
Diuron	0.013 / 0.040	0.125	N/A	ND	PASS
Dodemorph	0.012 / 0.035	0.05	N/A	ND	PASS
Endosulfan sulfate	0.016 / 0.048	0.05	N/A	ND	PASS
Endosulfan-α*	0.004 / 0.014	0.2	N/A	ND	PASS
Endosulfan-β*	0.006 / 0.019	0.05	N/A	ND	PASS
Ethoprophos	0.003 / 0.009	0.01	N/A	ND	PASS
Etofenprox	0.014 / 0.042	0.05	N/A	ND	PASS
Etoxazole	0.007 / 0.020	0.01	N/A	ND	PASS

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Pesticide Analysis *Continued*

PESTICIDE TEST RESULTS - 06/02/2023 *continued* ✔ PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Etridiazole*	0.002 / 0.005	0.03	N/A	ND	PASS
Fenhexamid	0.003 / 0.008	0.125	N/A	ND	PASS
Fenoxycarb	0.003 / 0.010	0.01	N/A	ND	PASS
Fenpyroximate	0.007 / 0.020	0.2	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
Fenvalerate	0.033 / 0.099	0.1	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	0.01	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	0.5	N/A	ND	PASS
Kresoxim-methyl	0.006 / 0.019	0.02	N/A	ND	PASS
λ-Cyhalothrin	0.068 / 0.206	0.25	N/A	ND	PASS
Malathion	0.003 / 0.009	0.02	N/A	ND	PASS
Metalaxyl	0.003 / 0.010	0.02	N/A	ND	PASS
Methiocarb	0.003 / 0.008	0.02	N/A	ND	PASS
Methomyl	0.008 / 0.025	0.05	N/A	ND	PASS
Methoprene	0.172 / 0.521	2	N/A	ND	PASS
Mevinphos	0.008 / 0.024	0.025	N/A	ND	PASS
MGK-264	0.015 / 0.047	0.05	N/A	ND	PASS
Myclobutanil	0.003 / 0.009	0.01	N/A	ND	PASS
Naled	0.021 / 0.064	0.1	N/A	ND	PASS
Novaluron	0.002 / 0.005	0.025	N/A	ND	PASS
Oxamyl	0.017 / 0.051	0.5	N/A	ND	PASS
Paclobutrazol	0.003 / 0.010	0.01	N/A	ND	PASS
Parathion-methyl	0.016 / 0.050	0.05	N/A	ND	PASS
Pentachloronitrobenzene*	0.004 / 0.012	0.02	N/A	ND	PASS
Permethrin	0.056 / 0.168	0.04	N/A	ND	PASS
Phenothrin	0.016 / 0.047	0.05	N/A	ND	PASS
Phosmet	0.007 / 0.020	0.02	N/A	ND	PASS
Piperonyl Butoxide	0.010 / 0.029	0.2	N/A	ND	PASS
Pirimicarb	0.003 / 0.009	0.01	N/A	ND	PASS
Prallethrin	0.015 / 0.046	0.05	N/A	ND	PASS
Propiconazole	0.027 / 0.080	0.1	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 - 06/02/2023 *continued* ✔ PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Pyrethrins	0.016 / 0.049	0.05	N/A	ND	PASS
Pyridaben	0.005 / 0.017	0.02	N/A	ND	PASS
Pyriproxyfen	0.003 / 0.009	0.01	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	0.25	N/A	ND	PASS
Spiromesifen	0.016 / 0.050	0.03	N/A	ND	PASS
Spirotetramat	0.003 / 0.010	0.01	N/A	ND	PASS
Spiroxamine	0.020 / 0.062	0.1	N/A	ND	PASS
Tebuconazole	0.003 / 0.010	0.01	N/A	ND	PASS
Tebufozide	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	0.1	N/A	ND	PASS
Thiabendazole	0.006 / 0.020	0.02	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	0.05	N/A	ND	PASS
Trifloxystrobin	0.003 / 0.009	0.02	N/A	ND	PASS



Mycotoxin Analysis

MYCOTOXIN TEST RESULTS - 05/31/2023 ✔ PASS

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

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

COMPOUND	LOD/LOQ (µg/kg)	ACTION LIMIT (µg/kg)	MEASUREMENT UNCERTAINTY (µg/kg)	RESULT (µg/kg)	RESULT
Aflatoxin B1	1.6 / 5.0	5	N/A	ND	PASS
Aflatoxin B2	1.4 / 4.1	20	N/A	ND	PASS
Aflatoxin G1	1.6 / 4.9	20	N/A	ND	PASS
Aflatoxin G2	1.6 / 5.0	20	N/A	ND	PASS
Total Aflatoxin		20		ND	PASS
Ochratoxin A	1.6 / 5.0	5	N/A	ND	PASS



Residual Solvents Analysis

Residual Solvent analysis utilizing gas chromatography-mass spectrometry (GC-MS).

Method: QSP 1204 - Analysis of Residual Solvents by GC-MS

Total Butanes = n-Butane + 2-Methylpropane (Isobutane)
Total Heptanes = 2,2-Dimethylpentane (Neoheptane) + 2,3-Dimethylpentane + 2,4-Dimethylpentane + 3,3-Dimethylpentane + 2,2,3-Trimethylbutane (Triptane) + 2-Methylhexane (Isoheptane) + 3-Methylhexane + 3-Ethylpentane + n-Heptane
Total Xylenes = 1,2-Dimethylbenzene (o-Xylene) + 1,3-Dimethylbenzene (m-Xylene) / 1,4-Dimethylbenzene (p-Xylene)

RESIDUAL SOLVENTS TEST RESULTS - 06/05/2023

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Propane	0.234 / 0.781	500	N/A	ND	PASS
2-Methylpropane (Isobutane)	0.052 / 0.173	5000	N/A	ND	PASS
n-Butane	0.019 / 0.063	2000	N/A	ND	PASS
Total Butanes		500		ND	PASS
n-Pentane	0.310 / 1.033	1000	N/A	ND	PASS
n-Hexane	0.110 / 0.366	0	N/A	ND	PASS
2,2-Dimethylpentane (Neoheptane)	0.493 / 1.642		N/A	ND	
2,3-Dimethylpentane	1.009 / 3.365		N/A	ND	
2,4-Dimethylpentane	0.737 / 2.458		N/A	ND	
3,3-Dimethylpentane	0.198 / 0.660		N/A	ND	
2,2,3-Trimethylbutane (Triptane)	0.521 / 1.738		N/A	ND	
2-Methylhexane (Isoheptane)	0.610 / 2.034		N/A	ND	
3-Methylhexane	0.235 / 0.785		N/A	ND	
3-Ethylpentane	0.304 / 1.012		N/A	ND	
n-Heptane	13.12 / 43.72	500	N/A	ND	PASS
Total Heptanes		1000		ND	PASS
Benzene	0.089 / 0.295	0	N/A	ND	PASS
Toluene	0.115 / 0.382	0	N/A	ND	PASS
1,3-Dimethylbenzene / 1,4-Dimethylbenzene	0.451 / 1.502	2170	N/A	ND	PASS
1,2-Dimethylbenzene (o-Xylene)	0.387 / 1.289	2170	N/A	ND	PASS
Total Xylenes		217		ND	PASS
Methanol	53.92 / 163.4	500	N/A	ND	PASS
Ethanol	8.984 / 27.23	1000	N/A	<LOQ	PASS
2-Propanol (Isopropyl Alcohol)	8.421 / 25.52	500	N/A	<LOQ	PASS
Acetone	10.59 / 32.08	5000	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: QSP 1160 - Analysis of Heavy Metals by ICP-MS

HEAVY METALS TEST RESULTS - 05/31/2023

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Arsenic	0.02 / 0.1	0.42	N/A	ND	PASS
Cadmium	0.02 / 0.05	0.27	N/A	ND	PASS
Lead	0.04 / 0.1	0.5	N/A	ND	PASS
Mercury	0.002 / 0.01	0.4	N/A	ND	PASS



Microbiology Analysis



PCR AND PLATING

Analysis conducted by polymerase chain reaction (PCR) and fluorescence detection of microbiological contaminants.

Method: QSP 1221 - Analysis of Microbiological Contaminants

Analysis conducted by 3M™ Petrifilm™ and plate counts of microbiological contaminants.

Method: QSP 6794 - Plating with 3M™ Petrifilm™

MICROBIOLOGY TEST RESULTS (PCR) - 06/03/2023 ✔ PASS

COMPOUND	ACTION LIMIT	RESULT	RESULT
Shiga toxin-producing <i>Escherichia coli</i>	Not Detected in 1g	ND	PASS
<i>Salmonella</i> spp.	Not Detected in 1g	ND	PASS

MICROBIOLOGY TEST RESULTS (PLATING) - 06/03/2023 ✔ PASS

COMPOUND	ACTION LIMIT (cfu/g)	RESULT (cfu/g)	RESULT
Total Aerobic Bacteria	100	ND	PASS
Total Yeast and Mold	10	ND	PASS
Coliforms	100	ND	PASS

NOTES

COA amended, update to order detail information: Serving mass, Name and Batch ID updated. COA amended to reflect requested assays.