



Certificate of Analysis

Analytical Test Report

Client: Berkley Botanicals llc 44 County Street Berkley, MA 02779	Final Report	MCR-S24-09886 Rev.01.00	Laboratory: MCR Labs 85 Speen St. Lower Level Framingham, MA 01701 508-872-6666
	Report Date	17 MAY 2024	
	METRC Tag:	1A40A030000D5AD000003601	
	METRC Source Tag:	1A40A030000D5AD000003566	

Sample ID #	Sample Name	Batch	Matrix	Date Received	Date(s) Tested	Sample Weight
S24-09886	Renew - Hazelnut Cream - Bulk Flower	HazelnutCream-F1-04172024	Flower	09 May 2024	10-17 May 2024	9.03 g

The test results presented in this report are accurate, complete, and compliant with the MCR Labs quality control criteria.

Authorization

Carlos Cruz
Data Quality Manager



Case Narrative

This sample was received by MCR Labs from a RMD agent in a sealed container. The collected data was compared to data collected from analytical reference standards at known concentrations. Testing was conducted using MGC's combined primer kit. Presumptive microbiological positives were analyzed for confirmation. TAC (Total Active Cannabinoids) calculation on the report includes all quantified and estimated values. Cannabinoid data processed using external standard instead of internal standard. Unless specified by regulation, measurement uncertainty is not taken into account when reporting results and making a statement of conformity. Values reported below quantitation limits are for informational purposes. QA/QC/CV data is available upon request.

This report and all information herein shall not be reproduced, except in its entirety, without the expressed consent of MCR Labs. Results apply only to the sample supplied to MCR Labs.

Requested Testing

Test	Code	Procedure	Analytes Tested	Disposition
Cannabinoid Profile	CN	MCR-TM-0011	CBDVA, CBDV, CBDA, CBGA, CBG, CBD, THCV, THCVA, CBCV, CBN, Δ9-THC, Δ8-THC, CBL, THCA, CBC, CBCA, CBLA, CBT	N/A
Microbiological Screen	MB	MCR-TM-0021 MCR-TM-0006 MCR-TM-0012	Bacterial (Total Aerobic, Total Coliform, Bile-Tolerant Gram Negative),Yeast and Mold, Pathogenic (E. coli, Salmonella)	Pass
Heavy Metals Screen	HM	MCR-TM-0008	Arsenic (As), Cadmium (Cd), Mercury (Hg), Lead (Pb)	Pass
Mycotoxins Screen	MY	MCR-TM-0009	Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, Aflatoxin G2, Ochratoxin A	Pass
Terpene Profile	TP	MCR-TM-0016*	α-Pinene, Camphene, β-Myrcene, β-Pinene, Δ-3-Carene, α-Terpinene, Ocimene, D-Limonene, p-Cymene, β-Ocimene, Eucalyptol, γ-Terpinene, Terpinolene, Linalool, Isopulegol, Geraniol, β-Caryophyllene, α-Humulene, cis-Nerolidol, trans-Nerolidol, Guaiol, Caryophyllene Oxide α-Bisabolol, Sabinene, α-Phellandrene, Sabinene Hydrate, Fenchyl Alcohol, Isoborneol, Menthol, Borneol, α-Terpineol, Nerol, trans-β-Farnesene, α-Cedrene, Valencene, Cedrol, Fenchone, Camphor, Pulegone, Geranyl Acetate	N/A
Pesticides Screen	PS	MCR-TM-0009	Bifenazate, Bifenthrin, Cyfluthrin, Etoxazole, Imazalil, Imidacloprid, Mcyclobutanil, Spiromesifen, Trifloxystrobin	Pass

* Result is non-accredited

Cannabinoid Profile [MCR-TM-0011]

Test Date: 12 May 24

Analyte	Cannabinoid	Conc. (weight %)	Conc. (mg/g)	LOD (weight %)	LOQ (weight %)
CBDVA	Cannabidivarinic Acid	ND	ND	0.01%	0.05%
CBDV	Cannabidivarin	ND	ND	0.01%	0.05%
CBDA	Cannabidiolic Acid	0.1%	1	0.01%	0.05%
CBGA	Cannabigerolic Acid	1.7%	17	0.01%	0.05%
CBG	Cannabigerol	0.2%	2	0.02%	0.05%
CBD	Cannabidiol	ND	ND	0.02%	0.05%
THCV	Tetrahydrocannabivarin	ND	ND	0.01%	0.05%
THCVA	Tetrahydrocannabivarinic Acid	0.1%	1	0.02%	0.05%
CBCV	Cannabichromevarin	ND	ND	0.01%	0.05%
CBN	Cannabinol	ND	ND	0.01%	0.05%
Δ9-THC	Δ9-Tetrahydrocannabinol	0.4%	4	0.01%	0.05%
Δ8-THC	Δ8-Tetrahydrocannabinol	ND	ND	0.01%	0.05%
CBL	Cannabicyclol	ND	ND	0.01%	0.05%
THCA	Tetryhydrocannabinolic Acid	22.2%	222	0.01%	0.05%
CBC	Cannabichromene	ND	ND	0.00%	0.05%
CBCA	Cannabichromenic Acid	0.2%	2	0.02%	0.25%
CBLA	Cannabicyclolic Acid	ND	ND	0.01%	0.05%
CBT	Cannabicitran	ND	ND	0.01%	0.05%

Total Active Cannabinoids (sum of above table)	24.9%	249	N/A	N/A
Total THC = THC + 0.877 * THCA	19.9%	199	N/A	N/A
Total CBD = CBD + (CBDA * 0.877)	0.09%	1	N/A	N/A

Note: There are no limits established by the Massachusetts Department of Public Health for cannabinoid concentrations.
ND = Not Detected; LOQ = Limit of Quantitation; LOD = Limit of Detection.

Microbiological Screen [MCR-TM-0021]

Test Date: 10-17 May 24

Test Analysis	Result	Unit	Limits	Disposition
Total Viable Aerobic Bacteria	960	CFU/g	100000 CFU/g	Pass
Total Coliforms	0	CFU/g	1000 CFU/g	Pass
Total Bile-Tolerant Gram Negative Bacteria	0	CFU/g	1000 CFU/g	Pass

Note: Testing limits established by the Massachusetts Department of Public Health, Protocol for Sampling and Analysis of Finished Medical Marijuana Products and Marijuana-Infused Products for Massachusetts Registered Medical Marijuana Dispensaries, Exhibit 6.
CFU = Colony Forming Unit.

Microbiological Screen [MCR-TM-0006]

Test Date: 14-17 May 24

Test Analysis	Result	Unit	Limits	Disposition
Total Yeast and Mold	<100	CFU/g	10000 CFU/g	Pass

Note: Testing limits established by the Massachusetts Department of Public Health, Protocol for Sampling and Analysis of Finished Medical Marijuana Products and Marijuana-Infused Products for Massachusetts Registered Medical Marijuana Dispensaries, Exhibit 6.
CFU = Colony Forming Unit.

Microbiological Screen [MCR-TM-0012]

Test Date: 12 May 24

Test Analysis	Result	Unit	Limits	Disposition
STEC	Not Detected	N/A	Not detected in 1g	Pass
Salmonella	Not Detected	N/A	Not detected in 1g	Pass

Note: Testing limits established by the Massachusetts Department of Public Health, Protocol for Sampling and Analysis of Finished Medical Marijuana Products and Marijuana-Infused Products for Massachusetts Registered Medical Marijuana Dispensaries, Exhibit 6.
NT = Not tested; STEC = Shiga Toxin producing E. coli.

Heavy Metals Screen [MCR-TM-0008]

Test Date: 11 May 24

Test Analysis	Result (ppb)	LOD (ppb)	LOQ (ppb)	Limits (ppb)	Disposition
Arsenic	ND	39.0	118.1	200	Pass
Cadmium	ND	16.9	76.9	200	Pass
Mercury	ND	19.3	76.9	100	Pass
Lead	ND	19.5	76.9	500	Pass

Testing limits established by the Massachusetts Department of Public Health, Protocol for Sampling and Analysis of Finished Medical Marijuana Products and Marijuana-Infused Products for Massachusetts Registered Medical Marijuana Dispensaries, Exhibit 4.
ND = Not Detected; LOD = Limit of Detection; LOQ = Limit of Quantitation;
BQL = Below Quantitation Limit; ppb = parts per billion.

Mycotoxins Screen [TM-NY-6]

Test Date: 11 May 24

Test Analysis	Result (ppb)	LOD (ppb)	LOQ (ppb)	Limits (ppb)	Disposition
Aflatoxin B1	Not Detected	3.3	10	20	Pass
Aflatoxin B2	Not Detected	3.3	10	20	Pass
Aflatoxin G1	Not Detected	3.3	10	20	Pass
Aflatoxin G2	Not Detected	3.3	10	20	Pass
Ochratoxin A	Not Detected	5.0	10	20	Pass

Note: Testing limits established by the Massachusetts Department of Public Health, Protocol for Sampling and Analysis of Finished Medical Marijuana Products and Marijuana-Infused Products for Massachusetts Registered Medical Marijuana Dispensaries, Exhibit 6.
ND = Not Detected; LOD = Limit of Detection; LOQ = Limit of Quantitation; ppb = Parts Per Billion.

Terpene Profile [MCR-TM-0016]*		Test Date: 13 May 24	
Analyte	Conc. (weight %)*	Analyte	Conc. (weight %)*
α-Pinene	0.07%*	Guaiol	ND*
Camphene	0.07%*	Caryophyllene Oxide	ND*
β-Myrcene	0.15%*	α-Bisabolol	0.03%*
β-Pinene	0.09%*	Sabienene	0.03%*
Δ-3-Carene	0.04%*	α-Phellandrene	0.04%*
α-Terpinene	0.04%*	Sabinene Hydrate	0.03%*
α-Ocimene	0.01%*	Fenchyl Alcohol	0.03%*
D-Limonene	0.07%*	Isoborneol	ND*
p-Cymene	0.01%*	Menthol	0.03%*
β-Ocimene	0.14%*	Borneol	0.03%*
Eucalyptol	ND*	α-Terpineol	0.04%*
γ-Terpinene	0.03%*	Nerol	ND*
Terpinolene	0.67%*	trans-β-Farnesene	0.08%*
Linalool	0.07%*	α-Cedrene	0.02%*
Isopulegol	ND*	Valencene	0.03%*
Geraniol	ND*	Cedrol	ND*
β-Caryophyllene	0.10%*	Fenchone	0.02%*
α-Humulene	0.05%*	Camphor	ND*
cis-Nerolidol	0.04%*	Pulegone	ND*
trans-Nerolidol	0.04%*	Geranyl Acetate	0.04%*
Total Terpenes		2.14%*	

Note: ND = Not Detected.

Pesticides Screen [MCR-TM-0009]						Test Date: 11 May 24	
Analyte	Result (ppb)	LOD (ppb)	LOQ (ppb)	Limits (ppb)	Disposition		
Bifenazate	ND	10	35	10	Pass		
Bifenthrin	ND	10	35	10	Pass		
Cyfluthrin	ND	10	35	10	Pass		
Etoxazole	ND	10	35	10	Pass		
Imazalil	ND	10	35	10	Pass		
Imidacloprid	ND	10	35	10	Pass		
Myclobutanil	ND	10	35	10	Pass		
Spiromesifen	ND	10	35	10	Pass		
Trifloxystrobin	ND	10	35	10	Pass		

Note: Testing limits established by the Massachusetts Department of Public Health, Protocol for Sampling and Analysis of Finished Medical Marijuana Products and Marijuana-Infused Products for Massachusetts Registered Medical Marijuana Dispensaries, Exhibit 5.
ND = Not Detected; LOD = Limit of Detection; LOQ = Limit of Quantitation; ppb = Parts Per Billion.