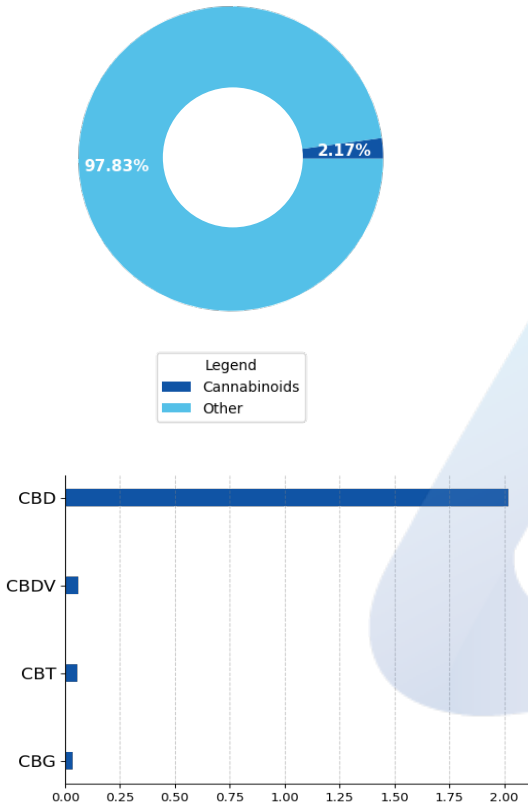


Broad Spectrum Blueberry Tincture

Batch ID:	22HLW1032207	Received:	07/27/2022	Analysis:	15 Cannabinoid Potency
Sample Type:	Tincture	Analyzed:	07/29/2022	Method:	2021.15P.01
		Test ID:	4560	Equipment:	HPLC

CANNABINOID PROFILE
TOTAL CANNABINOID CONTENT


Cannabinoid	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)
Cannabidiol (CBD)	5.90e-05	1.80e-04	2.02 ± 0.055	20.21
Cannabigerol (CBG)	5.20e-05	1.60e-04	0.04 ± 0.00097	0.36
Δ9-Tetrahydrocannabinol (Δ9-THC)	4.90e-05	1.50e-04	ND	ND
Cannabicitran (CBT)	5.20e-05	1.60e-04	0.06 ± 0.0015	0.56
Cannabichromene (CBC)	3.90e-05	1.20e-04	ND	ND
Cannabinol (CBN)	5.00e-05	1.50e-04	ND	ND
Cannabicyclol (CBL)	2.50e-05	7.60e-05	ND	ND
Tetrahydrocannabivarin (THCV)	3.70e-05	1.10e-04	ND	ND
Δ8-Tetrahydrocannabinol (Δ8-THC)	6.20e-05	1.90e-04	ND	ND
Tetrahydrocannabivarin Acid (THCVA)	3.80e-05	1.20e-04	ND	ND
Cannabigerolic acid (CBGA)	1.10e-04	3.40e-04	ND	ND
Cannabidiolic acid (CBDA)	9.60e-05	2.90e-04	ND	ND
Cannabidivarin (CBDV)	2.90e-05	8.80e-05	0.06 ± 0.0016	0.59
Tetrahydrocannabinolic Acid (THCA)	1.70e-04	5.10e-04	ND	ND
Cannabidivarinic Acid (CBDVA)	3.10e-05	9.50e-05	ND	ND
Total Cannabinoid**			2.17	21.72
Total Potential THC*			ND	ND
Total Potential CBD*			2.02 ± 0.055	20.21
Total Potential CBG*			0.04 ± 0.00097	0.36

* Total Potential THC/CBD/CBG is calculated using the following formulas to consider the loss of a carboxyl group during decarboxylation step.

* Total THC = THC + (THCa *(0.877)) and Total CBD = CBD + (CBDA *(0.877)) and Total CBG = CBG + (CBGa*(0.877))

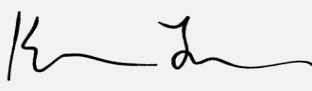


** Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.

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

REMARKS

Passed visual inspection for particulates, mold, mildew, and other foreign substances.

FINAL AUTHORIZATION

		
Katie Little, Analytical Scientist 11:28 AM	Logan Cline, Director of Analytical Development 07/29/2022 12:17 PM	John Reser, Quality Analyst 07/29/2022 12:20 PM
ANALYZED BY/DATE	AUTHORIZED BY/DATE	RELEASED BY/DATE

Laboratory results are based on the sample submitted to Minova Laboratories in the condition it was received. Minova Laboratories warrants that all analyses performed are in accordance with ISO/IEC 17025:2017. All data is generated using NIST traceable reference material and all reports are produced with the highest regard for scientific integrity. Reports can only be reproduced with the written consent of Minova Laboratories.

Broad Spectrum Blueberry Tincture

Batch ID:	22HLW1032207	Received:	07/27/2022	Analysis:	Residual Solvents
Sample Type:	Tincture	Analyzed:	08/10/2022	Method:	2021.RS.01
		Test ID:	4562	Equipment:	GCMS

RESIDUAL SOLVENTS




SOLVENT	REPORTABLE RANGE	RESULT (ppm)
Acetone	100 - 1000	*ND
Acetonitrile	100 - 1000	*ND
Benzene	0.2 - 4	*ND
Butanes	100 - 1000	*ND
Ethanol	100 - 1000	*ND
Ethyl Acetate	100 - 1000	*ND
Heptane	100 - 1000	*ND
Hexanes	6 - 120	*ND
Isopropyl Alcohol	100 - 1000	*ND
Methanol	100 - 1000	*ND
Pentanes	100 - 1000	*ND
Propane	100 - 1000	*ND
Toluene	18 - 360	*ND
Xylenes	43 - 860	*ND

*ND = Below Reportable Range

REMARKS

Passed visual inspection for particulates, mold, mildew, and other foreign substances.

FINAL AUTHORIZATION

		
Katie Little, Analytical Scientist 02:03 PM	Logan Cline, Director of Analytical Development 08/10/2022 03:15 PM	John Reser, Quality Analyst 08/10/2022 03:17 PM
ANALYZED BY/DATE	AUTHORIZED BY/DATE	RELEASED BY/DATE

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Broad Spectrum Blueberry Tincture

Batch ID:	22HLW1032207	Received:	07/27/2022	Analysis:	Quantitative Microbial Panel - CO Compliance
Sample Type:	Tincture	Analyzed:	08/05/2022	Method:	2022.QMP.01
		Test ID:	4561	Equipment:	qPCR + Culture Plating

QUANTITATIVE MICROBIAL PANEL - CO COMPLIANCE

CONTAMINANT	METHOD	LOD	QUANTITATIVE RANGE	RESULT
Total Yeast and Mold	Culture Plating	1.0E+02	1.0E+03-1.0E+05	ND
Total Aerobic Plate Count	Culture Plating	1.0E+03	1.0E+04-1.0E+06	ND
Total Coliforms	Culture Plating	1.0E+02	1.0E+02-1.0E+04	ND
Salmonella	qPCR	1.0E+00	Not Applicable	Absent
E.coli (STEC)	qPCR	1.0E+00	Not Applicable	Absent

***This method is not covered under the current A2LA and CDPHE scope and is pending accreditation.*

All numerical values indicated above are reported in CFU/g.

Limit of Detection (LOD) is the lowest detectable limit of qPCR.

Quantitative Range is the LLOQ and ULOQ from plating, where quantitative results are derived.

Any value above the ULOQ will be reported as too numerous to count (TNTC). Any value below the LLOQ will be reported as below LOQ.

Values are expressed in scientific notation.

Example: 1.0E+03 = 1,000 CFU

REMARKS
FINAL AUTHORIZATION


 Alex Bujanow, Microbiologist
 08/05/2022 02:39 PM

ANALYZED BY/DATE


 Logan Cline, Director of Analytical Development
 08/05/2022 02:48 PM

AUTHORIZED BY/DATE


 John Reser, Quality Analyst
 08/05/2022 04:20 PM

RELEASED BY/DATE

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