

CERTIFICATE OF ANALYSIS

prepared for: Mars Laboratories 1532 Brighton Way SE Olympia, WA 98501

2000mg Broad Spectrum

Batch ID:	0904	Received:	09/12/2022	Analysis:	18 Cannabinoid Potency
Sample Type:	Tincture	Analyzed:	09/19/2022	Method:	2021.18P.01
		Test ID:	5011	Equipment:	UHPLC

CANNABINOID PROFILE

TOTAL CANNABINOID CONTENT Cannabidiol (CBD) 4.29e-05 1.30e-04 6.72 ± 0.18 67.20 Cannabidigerol (CBC) 4.11e-05 1.25e-04 0.63 ± 0.014 5.34 Δ9-Tetrahydrocannabinol (Δ9-THC) 7.72e-05 2.34e-04 ND ND Cannabidior (CBD) 3.99e-05 1.20e-04 ND ND Cannabidior (CBD) 3.99e-05 1.21e-04 ND ND Cannabidior (CBN) 3.99e-05 1.21e-04 ND ND Cannabidociol (CBL) 4.06e-05 1.23e-04 ND ND Cannabidociol (CBL) 4.08e-05 1.23e-04 ND ND Cannabidociol (CBL) 4.08e-05 1.23e-04 ND ND Cannabidociol (CBLA) 4.00e-05 1.23e-04 ND ND Cannabidociol cacid (CBLA) 4.00e-05 1.23e-04 ND ND Cannabidocia caid (CBLA) 4.00e-05 1.23e-04 ND ND Cannabidocia caid (CBLA) 3.98e-05 1.11e-04 ND ND Cannabid		Cannabinoid	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)
A9-Tetrahydrocannabinol (Δ9-THC) 7.72e-05 2.34e-04 ND ND Cannabacitran (CBT) 3.95e-05 1.20e-04 ND ND Cannabicromene (CBC) 6.99e-05 2.12e-04 ND ND Cannabicol (CBN) 3.93e-05 1.19e-04 ND ND Cannabicol (CBL) 4.58e-05 1.39e-04 ND ND Cannabicol (CBL) 4.58e-05 1.39e-04 ND ND Cannabicolis Other ND ND ND ND Cannabicolis Other ND ND ND ND CBD Legend CBDAN 4.70e-05 1.42e-04 ND ND Cannabigoriolic acid (CBA) 3.98e-05 1.11e-04 ND ND Cannabigoriolic acid (CBDA) 4.70e-05 1.42e-04 ND ND Cannabidolic acid (CBDA) 4.70e-05 1.42e-04 ND ND Cannabidolic acid (CBDA) 4.70e-05 1.21e-04 ND ND Cannabidoliracid (CBDA)	TOTAL CANNABINOID CONTENT	Cannabidiol (CBD)	4.29e-05	1.30e-04	6.72 ± 0.18	67.20
CBD Legend Cannabinoids Other 1.20e-04 ND ND CBD Cannabinoids Cannabinoids 1.20e-04 ND ND CBD Legend Cannabinoids CBD 1.20e-04 ND ND CBD Legend Cannabinoids Cannabinoids 1.20e-04 ND ND CBD Legend Cannabinoids CBDA 4.00e-05 1.21e-04 ND ND CBD Cannabinoids CBDA 4.70e-05 1.42e-04 ND ND CBD Cannabinoids CCBDA 3.98e-05 1.21e-04 ND ND CBD Cannabidivarin (CBDV) 3.97e-05 1.20e-04 0.15 ± 0.0041 1.51 Tetrahydrocannabinoic Acid (CBDA) 4.15e-05 1.21e-04 ND ND Cannabidivarinic Acid (CBDVA)		Cannabigerol (CBG)	4.11e-05	1.25e-04	0.53 ± 0.014	5.34
CBD		Δ9-Tetrahydrocannabinol (Δ9-THC)	7.72e-05	2.34e-04	ND	ND
22.60% 7.40% 3.93e-05 1.19e-04 ND ND Cannabirod (CBN) 3.93e-05 1.39e-04 ND ND Cannabicyclol (CBL) 4.58e-05 1.21e-04 ND ND Cannabicyclol (CBL) 4.00e-05 1.21e-04 ND ND Cannabicyclol (CBL) 4.04e-05 1.23e-04 ND ND A8-Tetrahydrocannabinol (A8-THC) 4.73e-05 1.43e-04 ND ND CBD Cannabinoids 0ther ND ND ND CBD Cannabinoid (CBOA) 3.98e-05 1.21e-04 ND ND CBD Cannabinoid (CBCA) 3.98e-05 1.21e-04 ND ND Cannabinoid (CBDA) 4.15e-05 1.26e-04 ND ND Cannabidolic acid (CBDA) 4.15e-05 1.20e-04 0.15 ± 0.0041 1.51 Tetrahydrocannabinoic Acid (THCA) 3.86e-05 1.17e-04 ND ND Cannabicivarin (CBDV) 3.97e-05 1.20e-04 ND ND Cannabicivarin (CBDV) 3.98e-05 1.21e-04 ND ND		Cannabacitran (CBT)	3.95e-05	1.20e-04	ND	ND
92.60% 3.93e-05 1.19e-04 ND ND Cannabicyclol (CBL) 4.58e-05 1.39e-04 ND ND Cannabicyclol (CBL) 4.58e-05 1.21e-04 ND ND Cannabicyclol (CBL) 4.00e-05 1.21e-04 ND ND AB-Tetrahydrocannabivarin (THCV) 4.04e-05 1.23e-04 ND ND AB-Tetrahydrocannabivarin Acid (THCV) 4.04e-05 1.43e-04 ND ND Cannabinoids Other Cannabiol (CBNA) 4.70e-05 1.42e-04 ND ND Cannabiolidic acid (CBDA) 4.15e-05 1.21e-04 ND ND Cannabidivarin (CBDV) 3.97e-05 1.20e-04 ND ND Cannabidivarin (CBDV) 3.97e-05 1.20e-04 ND ND Cannabidivarinic Acid (CBDA) 4.15e-05 1.21e-04 ND ND Cannabidivarinic Acid (CBDVA) 3.99e-05 1.21e-04 ND ND Cannabidivarinic Acid (CBDVA) 3.99e-05 1.21e-04 ND ND Cannabidi		Cannabichromene (CBC)	6.99e-05	2.12e-04	ND	ND
CBD Cannabicyclolic acid (CBLA) 4.00e-05 1.21e-04 ND ND Cannabicyclolic acid (CBLA) 4.04e-05 1.23e-04 ND ND A8-Tetrahydrocannabinol (A8-THC) 4.73e-05 1.43e-04 ND ND Cannabinolids Cannabinolic (CBNA) 4.70e-05 1.42e-04 ND ND Cannabinolids Other Cannabiolic (CBNA) 4.70e-05 1.42e-04 ND ND Cannabinolids Other Cannabiolic (CBNA) 4.70e-05 1.42e-04 ND ND Cannabigerolic acid (CBCA) 3.98e-05 1.21e-04 ND ND Cannabidolic acid (CBDA) 4.15e-05 1.26e-04 ND ND Cannabidivarin (CBDV) 3.97e-05 1.20e-04 0.15 ± 0.0041 1.51 Tetrahydrocannabinolic Acid (THCA) 3.86e-05 1.17e-04 ND ND Cannabidivarin (CBDV) 3.99e-05 1.21e-04 ND ND Cannabidivarinic Acid (CBDVA) 3.99e-05 1.21e-04 ND ND Cannab	7.40%	Cannabinol (CBN)	3.93e-05	1.19e-04	ND	ND
CBD Tetrahydrocannabivarin (THCV) 4.04e-05 1.23e-04 ND ND CBD Cannabinoids Other CBD A.70e-05 1.43e-04 ND ND CBD Cannabinoids Other Cannabinoids Other Sefect 3 1.21e-04 ND ND CBD Cannabinoids Other Cannabinoids Other Sefect 3 1.21e-04 ND ND CBD Cannabinoid (CBDA) 4.15e-05 1.20e-04 ND ND CBD Cannabinoid (CBDV) 3.97e-05 1.20e-04 ND ND CBG Cannabinoid (CBDV) 3.97e-05 1.21e-04 ND ND Cannabinoid cacid (CBDA) 4.15e-05 1.21e-04 ND ND Cannabinoid cacid (CBCA) 3.99e-05 1.21e-04 ND ND Cannabinoid** 7.40 74.05 74.05 74.05 Total Potential THC* ND ND ND ND Cannabinoid** 6.72 ± 0.18 67.20 721 721 724.05	92.60%	Cannabicyclol (CBL)	4.58e-05	1.39e-04	ND	ND
Legend CBD A&-Tetrahydrocannabinol (A&-THC) 4.73e-05 1.43e-04 ND ND CBD Cannabinoids Other Tetrahydrocannabivoli (CBNA) 4.70e-05 1.42e-04 ND ND CBD Cannabinoids Other See-05 1.11e-04 ND ND CBD Cannabidiolic acid (CBGA) 3.98e-05 1.21e-04 ND ND Cannabidiolic acid (CBDA) 4.15e-05 1.20e-04 ND ND Cannabidivarin (CBDV) 3.97e-05 1.20e-04 ND ND Cannabidivarin (CBDV) 3.97e-05 1.21e-04 ND ND Cannabidivarin (CBDV) 3.97e-05 1.21e-04 ND ND Cannabidivarinic Acid (CBCA) 3.99e-05 1.21e-04 ND ND Cannabidivarinic Acid (CBDVA) 3.99e-05 1.21e-04 ND ND		Cannabicyclolic acid (CBLA)	4.00e-05	1.21e-04	ND	ND
CBD Cannabinolic (CBNA) 4.70e-05 1.42e-04 ND ND CBD Tetrahydrocannabivarin Acid (THCVA) 3.66e-05 1.11e-04 ND ND CBD Cannabidiolic acid (CBGA) 3.98e-05 1.21e-04 ND ND CBD Cannabidiolic acid (CBDA) 4.15e-05 1.20e-04 ND ND Cannabidiolic acid (CBDA) 4.15e-05 1.20e-04 ND ND Cannabidivarin (CBDV) 3.97e-05 1.20e-04 0.15 ± 0.0041 1.51 Tetrahydrocannabinolic Acid (THCA) 3.86e-05 1.17e-04 ND ND CBG Cannabidivarini CACid (CBCA) 3.99e-05 1.21e-04 ND ND Cannabidivarinic Acid (CBCA) 3.99e-05 1.21e-04 ND ND Cannabidivarinic Acid (CBDVA) 3.99e-05 1.21e-04 ND ND Cannabinoid** 7.40 74.05 74.05 74.05 Total Potential CBD* 6.72 ± 0.18 67.20 6.72 ± 0.18 67.20 Total Potential CBG* 0.53 ± 0.014 5.34 5.34		Tetrahydrocannabivarin (THCV)	4.04e-05	1.23e-04	ND	ND
Legend Tetrahydrocannabivarin Acid (THCVA) 3.66e-05 1.11e-04 ND ND CBD Cannabigerolic acid (CBGA) 3.98e-05 1.21e-04 ND ND CBD Cannabidiolic acid (CBDA) 4.15e-05 1.20e-04 ND ND CBD Cannabidivarin (CBDV) 3.97e-05 1.20e-04 0.15 ± 0.0041 1.51 CBD Cannabidivarin (CBDV) 3.97e-05 1.21e-04 ND ND CBG Cannabidivarin (CBDV) 3.99e-05 1.21e-04 ND ND CBG Tetrahydrocannabinolic Acid (THCA) 3.86e-05 1.17e-04 ND ND CBG Cannabidivarinic Acid (CBDVA) 3.99e-05 1.21e-04 ND ND CBG Total Cannabinoid** T.40 7.40 74.05 Total Potential THC* ND ND ND CBDV Total Potential CBD* 6.72 ± 0.18 67.20 Total Potential CBG* 0.53 ± 0.014 5.34		Δ8-Tetrahydrocannabinol (Δ8-THC)	4.73e-05	1.43e-04	ND	ND
Cannabinoids Other Cannabigerolic acid (CBGA) 3.98e-05 1.21e-04 ND ND CBD Cannabidiolic acid (CBDA) 4.15e-05 1.26e-04 ND ND CBD Cannabidiolic acid (CBDV) 3.97e-05 1.20e-04 0.15 ± 0.0041 1.51 CBD Tetrahydrocannabinolic Acid (THCA) 3.86e-05 1.17e-04 ND ND CBG Cannabidivarin (CBDV) 3.99e-05 1.21e-04 ND ND CBG Total Potential THC* ND ND ND CBDV Total Potential CBD* 6.72 ± 0.18 67.20 Total Potential CBG* 0.53 ± 0.014 5.34		Cannabinolic (CBNA)	4.70e-05	1.42e-04	ND	ND
Other Cannabigerolic acid (CBGA) 3.98e-05 1.21e-04 ND ND CBD Cannabidiolic acid (CBDA) 4.15e-05 1.26e-04 ND ND CBD Cannabidiolic acid (CBDA) 4.15e-05 1.20e-04 0.15 ± 0.0041 1.51 Tetrahydrocannabinolic Acid (THCA) 3.86e-05 1.17e-04 ND ND CBG Cannabidivarinic Acid (CBCA) 3.99e-05 1.21e-04 ND ND CBG Cannabidivarinic Acid (CBDVA) 3.99e-05 1.21e-04 ND ND CBG Total Cannabinoid** 7.40 74.05 Total Potential THC* ND ND Total Potential CBD* 6.72 ± 0.18 67.20 Total Potential CBG* 0.53 ± 0.014 5.34		Tetrahydrocannabivarin Acid (THCVA)	3.66e-05	1.11e-04	ND	ND
CBD Cannabidivarin (CBDV) 3.97e-05 1.20e-04 0.15 ± 0.0041 1.51 Tetrahydrocannabinolic Acid (THCA) 3.86e-05 1.17e-04 ND ND CBG Cannabichromenic acid (CBCA) 3.99e-05 1.21e-04 ND ND CBG Total Cannabinoid** 7.40 74.05 CBDV Total Potential THC* ND ND Total Potential CBD* 6.72 ± 0.18 67.20 Total Potential CBG* 0.53 ± 0.014 5.34		Cannabigerolic acid (CBGA)	3.98e-05	1.21e-04	ND	ND
CBD Tetrahydrocannabinolic Acid (THCA) 3.86e-05 1.17e-04 ND ND CBG Cannabichromenic acid (CBCA) 3.99e-05 1.21e-04 ND ND CBG Total Cannabinoid** 7.40 74.05 Total Potential THC* ND ND Total Potential CBD* 6.72 ± 0.18 67.20 Total Potential CBG* 0.53 ± 0.014 5.34		Cannabidiolic acid (CBDA)	4.15e-05	1.26e-04	ND	ND
CBG Tetrahydrocannabinolic Acid (THCA) 3.86e-05 1.17e-04 ND ND CBG Cannabichromenic acid (CBCA) 3.99e-05 1.21e-04 ND ND Total Cannabinoid** 7.40 74.05 Total Potential THC* ND ND Total Potential CBD* 6.72 ± 0.18 67.20 Total Potential CBG* 0.53 ± 0.014 5.34		Cannabidivarin (CBDV)	3.97e-05	1.20e-04	0.15 ± 0.0041	1.51
CBG Cannabidivarinic Acid (CBDVA) 3.99e-05 1.21e-04 ND ND Total Cannabinoid** 7.40 74.05 Total Potential THC* ND ND Total Potential CBD* 6.72 ± 0.18 67.20 Total Potential CBG* 0.53 ± 0.014 5.34		Tetrahydrocannabinolic Acid (THCA)	3.86e-05	1.17e-04	ND	ND
CBG Total Cannabinoid** 7.40 74.05 Total Potential THC* ND ND Total Potential CBD* 6.72 ± 0.18 67.20 Total Potential CBD* 0.53 ± 0.014 5.34		Cannabichromenic acid (CBCA)	3.99e-05	1.21e-04	ND	ND
CBDV - Total Cannabinoid** 7.40 74.05 Total Potential THC* ND ND Total Potential CBD* 6.72 ± 0.18 67.20 Total Potential CBG* 0.53 ± 0.014 5.34		Cannabidivarinic Acid (CBDVA)	3.99e-05	1.21e-04	ND	ND
CBDV - Total Potential CBD* 6.72 ± 0.18 67.20 Total Potential CBD* 0.53 ± 0.014 5.34	CBG -	Total Cannabinoid**			7.40	74.05
CBDV Total Potential CBG* 0.53 ± 0.014 5.34		Total Potential THC*			ND	ND
Total Potential CBG* 0.53 ± 0.014 5.34	CRDV	Total Potential CBD*			6.72 ± 0.18	67.20
		Total Potential CBG*			0.53 ± 0.014	5.34

* 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



ANALYZED BY/DATE

Katie Little, Analytical Scientist 03:53 PM

09/19/2022

Logan Cline, Director of Analytical Development 09/19/2022 03:58 PM **AUTHORIZED BY/DATE**

om K

John Reser, Quality Analyst 09/19/2022 04:00 PM **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.

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