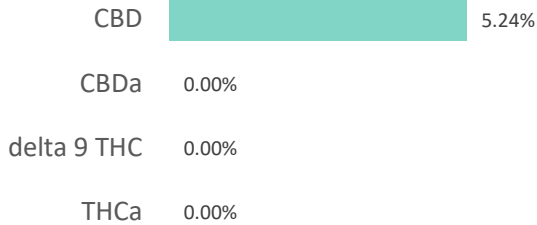
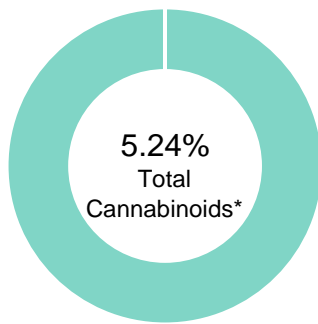


**DS ADVANCED**

<b>Batch ID:</b>	1112	<b>Test ID:</b>	4112257.0026
<b>Reported:</b>	23-Oct-2019	<b>Method:</b>	TM14
<b>Type:</b>	Concentrate		
<b>Test:</b>	Potency		

**CANNABINOID PROFILE**


Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.02	0.00	0.0
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.01	0.00	0.0
Cannabidiolic acid (CBDA)	0.02	0.00	0.0
Cannabidiol (CBD)	0.01	5.24	52.4
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.01	0.00	0.0
Cannabinolic Acid (CBNA)	0.02	0.00	0.0
Cannabinol (CBN)	0.01	0.00	0.0
Cannabigerolic acid (CBGA)	0.01	0.00	0.0
Cannabigerol (CBG)	0.01	0.00	0.0
Tetrahydrocannabivarinic Acid (THCVA)	0.01	0.00	0.0
Tetrahydrocannabivarin (THCV)	0.01	0.00	0.0
Cannabidivarinic Acid (CBDVA)	0.02	0.00	0.0
Cannabidivarin (CBDV)	0.01	0.00	0.0
Cannabichromenic Acid (CBCA)	0.01	0.00	0.0
Cannabichromene (CBC)	0.02	0.00	0.0
<b>Total Cannabinoids</b>		<b>5.24</b>	<b>52.40</b>
Total Potential THC**		0.00	0.00
Total Potential CBD**		5.24	52.40


**NOTES:**

N/A

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


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

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

$$\text{Total THC} = \text{THC} + (\text{THCa} * (0.877)) \text{ and Total CBD} = \text{CBD} + (\text{CBDa} * (0.877))$$
**FINAL APPROVAL**


Tyler Wiese  
23-Oct-2019  
6:29 PM

PREPARED BY / DATE



David Green  
23-Oct-2019  
6:45 PM

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC 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 Botanacor Laboratories, LLC. ISO/IEC 17025:2005 Accredited A2LA Certificate Number 4329.02



Certificate #4329.02

## DS ADVANCED

<b>Batch ID:</b>	1112	<b>Test ID:</b>	3049467.010
<b>Reported:</b>	21-Oct-2019	<b>Method:</b>	Topical - Test Methods: TM05, TM06
<b>Type:</b>	Topical		
<b>Test:</b>	Microbial Contaminants		

## MICROBIAL CONTAMINANTS

Contaminant	Result (CFU/g)*
<b>Total Aerobic Count**</b>	None Detected
<b>Total Coliforms**</b>	None Detected
<b>Total Yeast and Molds**</b>	None Detected
<b><i>E. coli</i></b>	None Detected
<b><i>Salmonella</i></b>	None Detected

\* CFU/g = Colony Forming Unit per Gram

\*\* Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form.

Examples:  $10^2 = 100$  CFU  
 $10^3 = 1,000$  CFU  
 $10^4 = 10,000$  CFU  
 $10^5 = 100,000$  CFU

## NOTES:

Free from visual mold, mildew, and foreign matter  
TYM: None Detected  
Total Aerobic: None Detected  
Coliforms: None Detected

## FINAL APPROVAL



Mara Miller  
21-Oct-2019  
3:49 PM



David Green  
21-Oct-2019  
3:55 PM

PREPARED BY / DATE

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Services, LLC, in the condition it was received. Botanacor Services, LLC 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 Botanacor Services, LLC.

# Certificate of Analysis

Final Product: Cannabidiol Isolate  
Date of Manufacture: 07/2019

Lot Number: IL1906I-037

Test	Methodology	Specification	Test Results (Average) <sup>1</sup>	Pass/Fail	
Color and Appearance	TM-004 (Visual)	White, crystalline powder free of particulates	Conforms	Pass	
CBD Identification	TM-001 (DAD Retention Time)	Retention time of the primary peak in sample chromatogram matches that in the analytical reference standard.	Conforms	Pass	
	TM-001 (DAD UV Spectrum)	UV Spectrum of the primary peak in sample chromatogram matches that in the analytical reference standard.	Conforms	Pass	
CBD Potency (% w/w)	TM-001 (HPLC-DAD)	≥ 98%	99.6	Pass	
THC Content (% w/w)	THC	TM-001 (HPLC-DAD)	≤ LOQ <sup>2</sup>	≤ LOQ	Pass
	THCA	TM-001 (HPLC-DAD)	≤ LOQ <sup>2</sup>	ND	Pass
Related Cannabinoid Content (%w/w)	CBDA	TM-001 (HPLC-DAD)	Report	ND	NA
	CBN	TM-001 (HPLC-DAD)	Report	ND	NA
	CBDV	TM-001 (HPLC-DAD)	Report	0.17	NA
	CBG	TM-001 (HPLC-DAD)	Report	ND	NA
	Other (Highest)	TM-001 (HPLC-DAD)	Report	0.23	NA
	Total	TM-001 (HPLC-DAD)	Report	0.47	NA
Total Cannabinoids (CBD plus total RCs, % w/w)	TM-001 (HPLC-DAD)	Report	100.03	NA	
Residual Solvents (ppm)	Pentane	TM-005 (HS-GC-FID)	≤ 500 ppm	194	Pass
	Acetone	TM-005 (HS-GC-FID)	≤ 500 ppm	ND	Pass
	Isopropyl Alcohol	TM-005 (HS-GC-FID)	≤ 500 ppm	< LOQ	Pass
	Hexane	TM-005 (HS-GC-FID)	≤ 25 ppm	< LOQ	Pass
Pesticides (Highest, ppm)	Individual Pesticide Content Test List <sup>3</sup>	LC-MS <sup>4</sup>	≤ LOQ <sup>3</sup>	< LOQ	Pass
Elemental Impurities (ppm)	Arsenic	ICP-MS <sup>4</sup>	< 1.5 ppm	< LOQ	Pass
	Cadmium	ICP-MS <sup>4</sup>	< 0.5 ppm	< LOQ	Pass
	Lead	ICP-MS <sup>4</sup>	< 0.5 ppm	< LOQ	Pass
	Mercury	ICP-MS <sup>4</sup>	< 1.5 ppm	< LOQ	Pass

<sup>1</sup>Number of replicates: 22

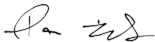
<sup>2</sup>TM-001 LOQ of 0.05% w/w for related cannabinoids.

<sup>3</sup>Full list of individual pesticide residues on file, Eurofins LOQ of 0.05 ppm for individual residues.

<sup>4</sup>Contract Testing performed by Eurofins BioDiagnostics.

## Prepared by

DocuSigned by:



Signer Name: Danae Burgess  
Signing Reason: I am the author of this document  
Signing Time: 7/26/2019 3:22:07 PM PDT

7791B19814FC4B6FA585FA36E4AB982E

## Quality Approval

DocuSigned by:



Signer Name: Beth Grant  
Signing Reason: I approve this document  
Signing Time: 7/26/2019 3:39:14 PM PDT

601DBDEA79BB4F4C8D9E7AF3E31F80D7