



# Certificate of Analysis

Sample Name: Full Spectrum CBD Water Soluble Powder

Sample ID: Lot # DP81511-16

Date Submitted: 05/22/2018 & 06/06/2018

Sample Type: Green powder

Total Sample Weight: 10g

### Cannabinoid Test Results

Cannabinoid analysis utilizing High Performance Liquid Chromatography (HPLC)

#### **Cannabinoid Summary**

<b>Total CBD:</b>	(CBD + CBDa)	165.0 mg/g
<b>Total THC:</b>	(THC + THCa)	Not Detected

#### **Full Cannabinoid Summary**

CBC	ND
CBD	144 mg/g
CBDa	21 mg/g
CBN	ND
CBDV	ND
CBDVa	ND
CBG	ND
CBGa	ND
THC	ND
THCa	ND
$\Delta^8$ -THC	ND

**Total Active Cannabinoids:** 16.5 mg/g

### Pesticide Test Results

Pesticide, Fungicide and plant growth regulator analysis utilizing GC-Mass Spectrometry.

	Limit	Result
Alachlor	0.500 ppm	Not Detected
Chlorfenvinphos	0.500 ppm	Not Detected
Chlorpyrifos	0.150 ppm	Not Detected
Deltamethrin	0.500 ppm	Not Detected
Dichlorvos	0.050 ppm	Not Detected
Dimethoate	1.000 ppm	Not Detected
Fenchlorophos	0.500 ppm	Not Detected
Fonofos	0.150 ppm	Not Detected
Lindane	0.250 ppm	Not Detected
Malathion	0.250 ppm	Not Detected
Methidathion	0.100 ppm	Not Detected
Permethrin	0.025 ppm	Not Detected
Pyrethrum	0.250 ppm	Not Detected
Tetradifon	0.250 ppm	Not Detected

### Microbiological Test Results

3M Petrifilm and plate counts for microbiological contamination

Total Aerobic Plate	70 cfu/g	E. coli	<10 cfu/g
Total Yeast and Mold	10 cfu/g	Coliforms	<10 cfu/g
Salmonella	Negative		

### Residual Solvent Test Results

Residual Solvent analysis utilizing Gas Chromatography - Flame Ionization Detection (GC-FID)

Ethanol	<5000 ppm (Pass)	Methanol	<3000 ppm (Pass)
Acetonitrile	<410 ppm (Pass)	THF	<720 ppm (Pass)
Dichloromethane	<600 ppm (Pass)	m-Xylene	<1302 ppm (Pass)
Cyclohexane	<3880 ppm (Pass)	p-Xylene	<304 ppm (Pass)
1,4-Dioxane	<380 ppm (Pass)	o-Xylene	<195 ppm (Pass)
Toluene	<890 ppm (Pass)	Ethylbenzene	<369 ppm (Pass)
Hexane	<290 ppm (Pass)	Nitromethane	<50 ppm (Pass)
Chloroform	<60 ppm (Pass)	Trichloroethene	<80 ppm (Pass)
Pyridine	<200 ppm (Pass)	2-Hexanone	<5- ppm (Pass)

### Terpene Test Results

Terpene analysis utilizing Gas Chromatography - Flame Ionization Detection (GC-FID)

$\alpha$ Bisabolol	212.7 ppm	$\alpha$ Pinene	25.0 ppm
$\delta$ -3 Carene	ND	$\beta$ Myrcene	168.9 ppm
$\beta$ Caryophyllene	575.3 ppm	$\alpha$ Humulene	154.4 ppm
Terpinolene	31.1 ppm	$\beta$ Pinene	37.7 ppm
Ocimene	ND	Linalool	ND
Limonene	ND	(-)-Isopulegal	ND
$\gamma$ Terpinene	ND	$\alpha$ Terpinene	196.0 ppm
Caryophyllene Oxide	791.2 ppm	b Ocimene	26.8 ppm
Guaiol	234.5 ppm	p-Cymene	185.2 ppm

**Total Terpene Concentration:** 2.64 mg/g

### Heavy Metals

Heavy Metals analysis utilizing Inductively Coupled Plasma Mass Spectrometry (ICP-MS)

Lead (Pb)	0.424 ppm
Arsenic (As)	0.228 ppm
Cadmium (Cd)	0.127 ppm
Mercury (Hg)	0.024 ppm

Reviewed By: \_\_\_\_\_