

#### **Hemp Quality Assurance Testing: Certificate of Analysis**

**Product Description: Organic CBD Broad Spectrum CBxDrops** 

2.5mL/5mL/10mL

**Expiration Date: JULY 2024** 

Batch Id: OrgNDDistTST-174.SD1P2

Lot Id: A001BD

**Terms** 

LOD: Limit of detection is the lowest amount of a compound that can be distinguished from the absence of that compound.

LOQ: Limit of quantitation is the lowest value of a compound that can be quantified with a specified degree of confidence.

ND: Not detected or less than the limit of detection value.

Units of Measure

mg/mL = Milligrams per milliliter

mg/g = Milligrams per gram

μg/g = Microgram per gram

 $1 \mu g/g = 1 parts per million (ppm)$ 

1 μg/kg = Microgram per kilogram = 1 parts per billion (ppb)

cfu/g = Colony forming units/gram

% = Percentage of sample

1 Drop = approximately 0.05ml

**Cannabinoid Potency Calculation** 

Potency per drop = mg/mL X 0.05mL/drop = mg of compound per drop

#### **Cannabinoids**

SC Laboratories Test ID: 220929N021-001			
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Compound	Result mg/mL	LOD mg/mL	LOQ mg/mL
Cannabidiol (CBD)	381.768		
Cannabichromene (CBC)	16.742		
Cannabigerol (CBG)	6.482		
Cannabinol (CBN)	5.463		
Cannabidivarin (CBDV)	1.687		
Cannabicyclol (CBL)	0.815		
Cannabidiolic Acid (CBDA)	ND		
Cannabidivarinic Acid (CBDVA)	ND		
Cannabigerolic Acid (CBGA)	ND		
Cannabichromenic Acid (CBCA)	ND		
Delta 9-Tetrahydrocannabinol (▲9-THC)	ND	0.002	0.014
Delta 8-Tetrahydrocannabinol (▲8-THC)	ND	0.010	0.020
Delta 9-Tetrahydrocannabinolic Acid (THCA)	ND	0.001	0.005
Tetrahydrocannabivarin (THCV)	ND	0.002	0.012
Tetrahydrocannabivarinic Acid (THCVA)	ND	0.002	0.019
Total THC	ND		
Total Cannabinoids	412.957		

#### **Microbial**

SC Laboratories Test ID: 220913N006-001

Polymerase Chain Reaction (PCR)	<b>Action Limit</b>	Result	Result
Shiga toxin-producing Escherichia coli	Not Detected in 25g	ND	PASS
Salmonella spp.	Not Detected in 25g	ND	PASS
Plating with 3M Petrifilm	Action Limit CFU/g	Result CFU/g	Result
Total Aerobic Bacteria	10000	ND	PASS
Total Yeast and Mold	1000	ND	PASS
Coliforms	100	ND	PASS

# **Mycotoxins**

SC Laboratories Test ID: 220726S001-001

Compound	Result (μg/kg)	LOD (μg/kg)	Result
Aflatoxin B1	ND	1.6	PASS
Aflatoxin B2	ND	1.4	PASS
Aflatoxin G1	ND	1.6	PASS
Aflatoxin G2	ND	1.6	PASS
Ochratoxin A	ND	1.6	PASS

# **Pesticides**

SC Laboratories Test ID: 220726S001-001

Compound	Result (μg/g)	LOD (μg/g)	
Abamectin	ND	0.032	PASS
Acephate	ND	0.006	PASS
Acequinocyl	ND	0.009	PASS
Acetamiprid	ND	0.016	PASS

Aldicarb	ND	0.030	PASS
Allethrin	ND	0.030	PASS
Atrazine	ND	0.006	PASS
Azadirachtin	ND	0.082	PASS
Azoxystrobin	ND	0.003	PASS
Benzovindiflupyr	ND	0.003	PASS
Bifenazate	ND	0.003	PASS
Bifenthrin	ND	0.021	PASS
Boscalid	ND	0.003	PASS
Buprofezin	ND	0.006	PASS
Carbaryl	ND	0.007	PASS
Carbofuran	ND	0.003	PASS
Chlorantraniliprole	ND	0.006	PASS
Chlorfenapyr	ND	0.005	PASS
Chlorpyrifos	ND	0.013	PASS
Clofentezine	ND	0.003	PASS
Clothianidin	ND	0.008	PASS
Coumaphos	ND	0.003	PASS
Cyantraniliprole	ND	0.003	PASS
Cyfluthrin	ND	0.052	PASS
Cypermethrin	ND	0.051	PASS
Cyprodinil	ND	0.003	PASS
Daminozide	ND	0.026	PASS
Deltamethrin	ND	0.059	PASS
Diazinon	ND	0.006	PASS
Dichlorvos (DDVP)	ND	0.012	PASS
Dimethoate	ND	0.003	PASS
Dimethomorph	ND	0.016	PASS
Dinotefuran	ND	0.010	PASS
Diuron	ND	0.013	PASS
Dodemorph	ND	0.012	PASS
Endosulfan sulfate	ND	0.016	PASS
Endosulfan-α	ND	0.004	PASS
Endosulfan-ß	ND	0.006	PASS
Ethoprophos	ND	0.003	PASS
Etofenprox	ND	0.014	PASS
Etoxazole	ND	0.007	PASS
Etridiazole	ND	0.002	PASS

Fenhexamid	ND	0.003	PASS
Fenoxycarb	ND	0.003	PASS
Fenpyroximate	ND	0.007	PASS
Fensulfothion	ND	0.003	PASS
Fenthion	ND	0.003	PASS
Fenvalerate	ND	0.033	PASS
Fipronil	ND	0.003	PASS
Flonicamid	ND	0.007	PASS
Fludioxonil	ND	0.003	PASS
Fluopyram	ND	0.003	PASS
Hexythiazox	ND	0.003	PASS
Imazalil	ND	0.003	PASS
Imidacloprid	ND	0.003	PASS
Iprodione	ND	0.077	PASS
Kinoprene	ND	0.077	PASS
Kresoxim-methyl	ND	0.006	PASS
<b>Λ-Cyhalothrin</b>	ND	0.068	PASS
Malathion	ND	0.003	PASS
Metalaxyl	ND	0.003	PASS
Methiocarb	ND	0.003	PASS
Methomyl	ND	0.008	PASS
Methoprene	ND	0.172	PASS
Mevinphos	ND	0.008	PASS
MGK-264	ND	0.015	PASS
Myclobutanil	ND	0.003	PASS
Naled	ND	0.021	PASS
Novaluron	ND	0.002	PASS
Oxamyl	ND	0.017	PASS
Paclobutrazol	ND	0.003	PASS
Parathion-methyl	ND	0.016	PASS
Pentachloronitrobenzene	ND	0.004	PASS
Permethrin	ND	0.056	PASS
Phenothrin	ND	0.016	PASS
Phosmet	ND	0.007	PASS
Piperonyl Butoxide	ND	0.010	PASS
Pirimicarb	ND	0.003	PASS
Prallethrin	ND	0.015	PASS
Propiconazole	ND	0.027	PASS

Propoxur	ND	0.003 PASS
Pyraclostrobin	ND	0.003 PASS
Pyrethrins	ND	0.016 PASS
Pyridaben	ND	0.005 PASS
Pyriproxyfen	ND	0.003 PASS
Resmethrin	ND	0.013 PASS
Spinetoram	ND	0.003 PASS
Spinosad	ND	0.003 PASS
Spirodiclofen	ND	0.031 PASS
Spiromesifen	ND	0.016 PASS
Spirotetramat	ND	0.003 PASS
Spiroxamine	ND	0.020 PASS
Tebuconazole	ND	0.003 PASS
Tebufenozide	ND	0.003 PASS
Teflubenzuron	ND	0.007 PASS
Tetrachlorvinphos	ND	0.003 PASS
Tetramethrin	ND	0.021 PASS
Thiabendazole	ND	0.006 PASS
Thiacloprid	ND	0.003 PASS
Thiamethoxam	ND	0.003 PASS
Thiophanate-methyl	ND	0.013 PASS
Trifloxystrobin	ND	0.003 PASS

# **Residual Solvents**

Columbia Laboratories Test ID: 22-001591/D003.R001

Compound	Result		LOQ μg/g	Limits µg/g	Result
1,4-Dioxane		<loq< th=""><th>100.0</th><th>380.0</th><th>PASS</th></loq<>	100.0	380.0	PASS
2-Ethoxyethanol		<loq< th=""><th>30.0</th><th>160.0</th><th>PASS</th></loq<>	30.0	160.0	PASS
2-Methylpentane		<loq< th=""><th>30.0</th><th>*N/A</th><th>PASS</th></loq<>	30.0	*N/A	PASS
2,2-Dimethylbutane (Neohexane)		<loq< th=""><th>30.0</th><th>290.0</th><th>PASS</th></loq<>	30.0	290.0	PASS
2,3-Dimethylbutane		<loq< th=""><th>30.0</th><th>290.0</th><th>PASS</th></loq<>	30.0	290.0	PASS
Acetone		<loq< th=""><th>200.0</th><th>1000.0</th><th>PASS</th></loq<>	200.0	1000.0	PASS
Benzene		<loq< th=""><th>1.0</th><th>2.0</th><th>PASS</th></loq<>	1.0	2.0	PASS
Cyclohexane		<loq< th=""><th>200.0</th><th>500.0</th><th>PASS</th></loq<>	200.0	500.0	PASS
Ethyl benzene		<loq< th=""><th>200.0</th><th>2170.0</th><th>PASS</th></loq<>	200.0	2170.0	PASS
Ethylene glycol		<loq< th=""><th>200.0</th><th>620.0</th><th>PASS</th></loq<>	200.0	620.0	PASS
Total Hexanes		<loq< th=""><th>150.0</th><th>290.0</th><th>PASS</th></loq<>	150.0	290.0	PASS
Isopropylbenzene (Cumene)		<loq< th=""><th>30.0</th><th>70.0</th><th>PASS</th></loq<>	30.0	70.0	PASS
Metha <u>nol</u>		<l00< th=""><th>200.0</th><th>500.0</th><th>PASS</th></l00<>	200.0	500.0	PASS

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Methylpropane (Isobutane)	<loq< th=""><th>200.0</th><th>5000.0</th><th>PASS</th></loq<>	200.0	5000.0	PASS
n-Heptane	<loq< th=""><th>200.0</th><th>500.0</th><th>PASS</th></loq<>	200.0	500.0	PASS
n-Pentane	<loq< th=""><th>200.0</th><th>1000.0</th><th>PASS</th></loq<>	200.0	1000.0	PASS
Total Pentanes	<loq< th=""><th>600.0</th><th>500.0</th><th>PASS</th></loq<>	600.0	500.0	PASS
Tetrahydrofuran	<loq< th=""><th>100.0</th><th>720.0</th><th>PASS</th></loq<>	100.0	720.0	PASS
Total Xylenes	<loq< th=""><th>400.0</th><th>217.0</th><th>PASS</th></loq<>	400.0	217.0	PASS
2-Butanol	<loq< th=""><th>200.0</th><th>5000.0</th><th>PASS</th></loq<>	200.0	5000.0	PASS
2-Methylbutane (Isopentane)	<loq< th=""><th>200.0</th><th>5000.0</th><th>PASS</th></loq<>	200.0	5000.0	PASS
2-Propanol (IPA)	<loq< th=""><th>200.0</th><th>500.0</th><th>PASS</th></loq<>	200.0	500.0	PASS
Ethanol	<loq< th=""><th>200.0</th><th>1000.0</th><th>PASS</th></loq<>	200.0	1000.0	PASS
2,2-Dimethylpropane (neo-pentane)	<loq< th=""><th>200.0</th><th>*N/A</th><th>PASS</th></loq<>	200.0	*N/A	PASS
3-Methylpentane	<loq< th=""><th>30.0</th><th>*N/A</th><th>PASS</th></loq<>	30.0	*N/A	PASS
Acetonitrile	<loq< th=""><th>100.0</th><th>410.0</th><th>PASS</th></loq<>	100.0	410.0	PASS
Total Butanes	<loq< th=""><th>400.0</th><th>500.0</th><th>PASS</th></loq<>	400.0	500.0	PASS
Ethyl acetate	<loq< th=""><th>200.0</th><th>1000.0</th><th>PASS</th></loq<>	200.0	1000.0	PASS
Ethyl ether	<loq< th=""><th>200.0</th><th>5000.0</th><th>PASS</th></loq<>	200.0	5000.0	PASS
Ethylene oxide	<loq< th=""><th>20.0</th><th>50.0</th><th>PASS</th></loq<>	20.0	50.0	PASS
Isopropyl acetate	<loq< th=""><th>200.0</th><th>5000.0</th><th>PASS</th></loq<>	200.0	5000.0	PASS
m,p-Xylene	<loq< th=""><th>200.0</th><th>*N/A</th><th>PASS</th></loq<>	200.0	*N/A	PASS
Methylene chloride	<loq< th=""><th>60.0</th><th>600.0</th><th>PASS</th></loq<>	60.0	600.0	PASS
n-Butane	<loq< th=""><th>200.0</th><th>2000.0</th><th>PASS</th></loq<>	200.0	2000.0	PASS
n-Hexane	<loq< th=""><th>30.0</th><th>60.0</th><th>PASS</th></loq<>	30.0	60.0	PASS
o-Xylene	<loq< th=""><th>200.0</th><th>2170.0</th><th>PASS</th></loq<>	200.0	2170.0	PASS
Propane	<loq< th=""><th>200.0</th><th>500.0</th><th>PASS</th></loq<>	200.0	500.0	PASS
Toluene	<loq< th=""><th>100.0</th><th>180.0</th><th>PASS</th></loq<>	100.0	180.0	PASS
Total Xylenes and Ethyl benzene	<loq< th=""><th>600.0</th><th>2170.00</th><th>PASS</th></loq<>	600.0	2170.00	PASS

<sup>\*</sup>N/A-Established action limits not indicated.

# **Heavy Metals**

Columbia Laboratories Test ID: 22-001591/D003.R000

Compound	Result	LOQ μg/g	Limits μg/g	Result
Arsenic	<l0< th=""><th>Q 0.0757</th><th>0.42</th><th>PASS</th></l0<>	Q 0.0757	0.42	PASS
Cadmium	<l0< th=""><th>Q 0.0757</th><th>0.27</th><th>PASS</th></l0<>	Q 0.0757	0.27	PASS
Lead	<l0< th=""><th>Q 0.0757</th><th>0.5</th><th>PASS</th></l0<>	Q 0.0757	0.5	PASS
Mercury	<l(< th=""><th>Q 0.0379</th><th>0.4</th><th>PASS</th></l(<>	Q 0.0379	0.4	PASS

#### **Overall Product Status:**

**PASS** 

This CBx Genetics & Therapeutics product has met all product specifications and testing and is released. This product contains less than 0.3% Delta-9-THC per federal hemp regulations.

Approved By Sign and Date:

Approved By Sign and Date:

Approved By Print Name and Position:

Approved By Print Name and Position:

Dr. Mark T. Muller, Senior Scientist

Dr. Rick Rabon, Senior Scientist