

# STRAIGHT HEMP

## CERTIFICATE OF ANALYSIS

PRODUCT: Straight Hemp Vape Oil  
BATCH/LOT: VA020  
INGREDIENTS: Full Spectrum Hemp Extracts, Broad Spectrum Hemp Extracts, Terpene Blend (Hemp-derived)  
ADDITIVES: none  
EXCIPIENTS: none

PRODUCTION DATE: 4/2022  
BEST BY/EXP DATE: 4/2024

TEST	METHOD	SPECIFICATION	RESULTS
<b>Strength &amp; Composition</b>			
Total Cannabidiol (CBD) <sup>i</sup>	UPLC/UV	48 – 58%	50.12%
Total minor cannabinoids	UPLC/UV	n/e	8.47%
Total Tetrahydrocannabinol (THC) <sup>ii</sup>	UPLC/UV	NMT 0.3%	0.21%
Total Cannabinoids	UPLC/UV	n/e	<b>57.19%</b>
Terpene assay <sup>iii</sup>	HS-GC/MS	n/e	<b>17.52%</b>
<b>Microbiological<sup>iv</sup></b>			
<i>Aspergillus</i>	Micro Array	Absent	PASS
<i>E. coli</i>	Micro Array	Absent	PASS
<i>Salmonella</i>	Micro Array	Absent	PASS
<i>Listeria</i>	qPCR	Absent	PASS
<b>Mycotoxins</b>			
Alfatoxin B1	LCMS	NMT 20 ppb	<6 ppb
Alfatoxin B2	LCMS	NMT 20 ppb	<6 ppb
Alfatoxin G1	LCMS	NMT 20 ppb	<6 ppb
Alfatoxin G2	LCMS	NMT 20 ppb	<6 ppb
Ochratoxin	LCMS	NMT 20 ppb	<12 ppb

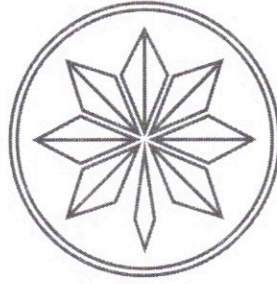
<sup>i</sup> Total CBD = CBD + (0.877\*CBDA) to account for loss of acid group during decarboxylation

<sup>ii</sup> Total THC = THC + (0.877\*THCa) to account for loss of acid group during decarboxylation

<sup>iii</sup> Sum of terpene assay (n=22)

<sup>iv</sup> Microbiological limits based on USP, WHO, and/or NSF/ANSI.

NMT = Not More Than  
MRL = Method Reporting Limit  
n/e = not established



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INGREDIENTS: Full Spectrum Hemp Extracts, Broad Spectrum Hemp Extracts, Terpene Blend (Hemp-derived)  
ADDITIVES: none  
EXCIPIENTS: none

PRODUCTION DATE: 4/2022  
BEST BY/EXP DATE: 4/2024

TEST	METHOD	SPECIFICATION	RESULTS
Heavy Metals <sup>v</sup>			
Arsenic (As)	ICP/MS	NMT 0.2 ppm	PASS
Cadmium (Cd)	ICP/MS	NMT 0.2 ppm	PASS
Lead (Pb)	ICP/MS	NMT 0.5 ppm	PASS
Mercury (Hg)	ICP/MS	NMT 0.1 ppm	PASS
Residual Solvents			
Multi-residue panel	GC-HS-MSD	Below CCR Limits <sup>vi</sup>	PASS
Pesticides			
Multi-residue panel	UPLC-MS/MS	Below MRL <sup>vii</sup>	PASS
Other compounds			
Vitamin E Acetate	LC-MS	Absent	PASS
Diacetyl (2,3-butanedione)	GCMS	Absent	PASS

  
David Cole  
Director of Quality

5/13/22  
Date

<sup>v</sup> Limits for As and Pb set below CA Prop 65 *no significant risk level*; Cd and Hg set below USP permitted daily exposure for 110lb body weight. Complies with 6 CCR 1010-21  
<sup>vi</sup> 21 solvent panel includes: Propane, Butanes, Methanol, Pentane, Ethanol, Acetone, Isopropyl Alcohol, Hexane, Benzene, Heptanes, Toluene, Xylenes.  
Individual limits: 1 CCR 212-3w  
<sup>vii</sup> 67 residue panel

Prepared for:

### Vape Oil

### Straight Hemp


Batch ID or Lot Number: <b>VA020</b>	Test: <b>Potency</b>	Reported: <b>4/11/22</b>	Location: 5135 W 58th Ave, Unit 5 Arvada, CO 80002
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Matrix: Concentrate	Test ID: T000201474	Started: 4/8/22	USDA License: N/A
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Status: N/A	Method: TM14 (HPLC-DAD): Potency - Broad Spectrum Analysis, 0.01% THC	Received: 04/06/2022 @ 11:32 AM	Sampler ID: N/A
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## CANNABINOID PROFILE

Compound	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)	Notes
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.003	0.008	ND	ND	N/A
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.004	0.009	0.209	2.09	
Cannabidiolic acid (CBDA)	0.071	0.233	ND	ND	
Cannabidiol (CBD)	0.070	0.227	50.124	501.24	
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.074	0.256	ND	ND	
Cannabinolic Acid (CBNA)	0.043	0.147	ND	ND	
Cannabinol (CBN)	0.020	0.067	0.558	5.58	
Cannabigerolic acid (CBGA)	0.063	0.215	ND	ND	
Cannabigerol (CBG)	0.015	0.051	6.187	61.87	
Tetrahydrocannabivarinic Acid (THCVA)	0.053	0.182	ND	ND	
Tetrahydrocannabivarin (THCV)	0.014	0.047	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.030	0.097	ND	ND	
Cannabidivarin (CBDV)	0.016	0.054	1.687	16.87	
Cannabichromenic Acid (CBCA)	0.024	0.083	ND	ND	
Cannabichromene (CBC)	0.026	0.091	0.043*	0.43*	
<b>Total Cannabinoids</b>			<b>58.808</b>	<b>588.08</b>	
Total Potential THC**			0.209	2.09	
Total Potential CBD**			50.124	501.24	

  
Hannah Wright  
11-Apr-22  
4:55 PM

  
Ryan Weems  
11-Apr-22  
5:02 PM

PREPARED BY / DATE

APPROVED BY / DATE

### Definitions

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

\* Indicates a value below the Limit of Quantitation (LOQ) and above the Limit of Detection (LOD).

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

Total THC = THC + (THCa \*(0.877)) and

Total CBD = CBD + (CBDA \*(0.877))

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

ND = None Detected (Defined by Dynamic Range of the method)

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.



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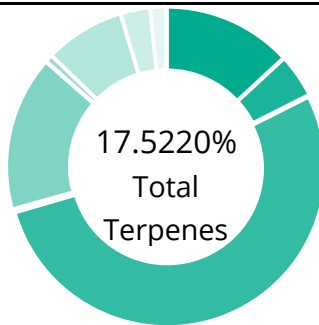


Certificate #4329.02

## Vape Oil

<b>Batch ID:</b>	VA020	<b>Test ID:</b>	T000201475
<b>Type:</b>	Concentrate	<b>Submitted:</b>	04/06/2022 @ 11:32 AM
<b>Test:</b>	Terpenes	<b>Started:</b>	3/31/2022
<b>Method:</b>	TM22 (GC-MS)	<b>Reported:</b>	4/12/2022

## TERPENE PROFILE



Compound	%(w/w)	mg/g
(-)-alpha-Bisabolol	0.2811	2.811
Camphene	0.0695	0.695
delta-3-Carene	0.0096	0.096
beta-Caryophyllene	1.3945	13.945
(-)-Caryophyllene Oxide	0.0000	0.000
p-Cymene	0.0000	0.000
Eucalyptol	0.0000	0.000
Geraniol	0.0000	0.000
alpha-Humulene	0.5112	5.112
(-)-Isopulegol	0.0000	0.000
d-Limonene	2.7059	27.059
Linalool	0.1286	1.286
beta-Myrcene	9.0629	90.629
cis-Nerolidol	0.0127	0.127
trans-Nerolidol	0.0000	0.000
Ocimene	0.0097	0.097
beta-Ocimene	0.0000	0.000
alpha-Pinene	2.2464	22.464
(-)-beta-Pinene	0.7594	7.594
alpha-Terpinene	0.0208	0.208
gamma-Terpinene	0.0306	0.306
Terpinolene	0.2791	2.791
	<b>17.5220</b>	<b>175.220</b>

## PREDOMINANT TERPENES

alpha-Pinene	2.2464
(-)-beta-Pinene	0.7594
beta-Myrcene	9.0629
delta-3-Carene	0.0096
alpha-Terpinene	0.0208
d-Limonene	2.7059
Linalool	0.1286
beta-Caryophyllene	1.3945
alpha-Humulene	0.5112
(-)-alpha-Bisabolol	0.2811

## NOTES:

N/A

## FINAL APPROVAL



 Daniel Weidensaul  
 12-Apr-2022  
 12:21 PM



 Jacob Miller  
 12-Apr-2022  
 12:23 PM

PREPARED BY / DATE

APPROVED BY / DATE

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A2LA Certificate Number 4329.02



Certificate #4329.02



Vape Oil  
Sample Matrix:  
CBD/HEMP  
Derivative Products  
(Inhalation - Heated)



DEA No. RA0571996  
FL License # CMTL-0003  
CLIA No. 10D1094068

# Certificate of Analysis

Compliance Test

**STRAIGHT HEMP**  
5135 W 58TH AVE, UNIT 5  
ARVADA, CO 80002

Batch # VA020  
Batch Date: 2022-04-05  
Extracted From: Hemp

Sampling Method: MSP 7.3.1  
Test Reg State: Florida

Order # STR220405-010001  
Order Date: 2022-04-05  
Sample # AACR268

Sampling Date: 2022-04-06  
Lab Batch Date: 2022-04-06  
Completion Date: 2022-04-11

Initial Gross Weight: 20.422 g

**Pesticides FL V4**  
Specimen Weight: 268.200 mg

Dilution Factor: 5.593

Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Abamectin	28.23	300	<LOQ	Fludioxonil	48	3000	<LOQ
Acephate	30	3000	<LOQ	Hexythiazox	30	2000	<LOQ
Acetamiprid	30	3000	<LOQ	Imazalil	30	100	<LOQ
Aldicarb	30	100	<LOQ	Kresoxim Methyl	30	1000	<LOQ
Azoxystrobin	10	3000	<LOQ	Malathion	30	2000	<LOQ
Bifenazate	30	3000	<LOQ	Metalaxyl	10	3000	<LOQ
Bifenthrin	30	500	<LOQ	Methiocarb	30	100	<LOQ
Boscalid	10	3000	<LOQ	Methomyl	30	100	<LOQ
Captan	30	3000	<LOQ	methyl-Parathion	10	100	<LOQ
Carbaryl	10	500	<LOQ	Mevinphos	10	100	<LOQ
Carbofuran	10	100	<LOQ	Myclobutanil	30	3000	<LOQ
Chlorantraniliprole	10	3000	<LOQ	Naled	30	500	<LOQ
Chloridane	10	100	<LOQ	Oxamyl	30	500	<LOQ
Chlorfenapyr	30	100	<LOQ	Paclbutrazol	30	100	<LOQ
Chloromequat Chloride	10	3000	<LOQ	Pentachloronitrobenzene	10	200	<LOQ
Chlorpyrifos	30	100	<LOQ	Permethrin	30	1000	<LOQ
Clofentezine	30	500	<LOQ	Phosmet	30	200	<LOQ
Coumaphos	48	100	<LOQ	Piperonylbutoxide	30	3000	<LOQ
Cyfluthrin	30	1000	<LOQ	Prallethrin	30	400	<LOQ
Cypermethrin	30	1000	<LOQ	Propiconazole	30	1000	<LOQ
Daminozide	30	100	<LOQ	Propoxur	30	100	<LOQ
Diazinon	30	200	<LOQ	Pyrethrins	30	1000	<LOQ
Dichlorvos	30	100	<LOQ	Pyridaben	30	3000	<LOQ
Dimethoate	30	100	<LOQ	Spinetoram	10	3000	<LOQ
Dimethomorph	48	3000	<LOQ	Spinosad	30	3000	<LOQ
Ethoprophos	30	100	<LOQ	Spiromesifen	30	3000	<LOQ
Etofenprox	30	100	<LOQ	Spirotetramat	30	3000	<LOQ
Etoxazole	30	1500	<LOQ	Spiroxamine	30	100	<LOQ
Fenhexamid	10	3000	<LOQ	Tebuconazole	30	1000	<LOQ
Fenoxycarb	30	100	<LOQ	Thiacloprid	30	100	<LOQ
Fenpyroximate	30	2000	<LOQ	Thiamethoxam	30	1000	<LOQ
Fipronil	30	100	<LOQ	Trifloxystrobin	30	3000	<LOQ
Fonicamid	30	2000	<LOQ				

**Passed Residual Solvents - FL (CBD)**  
(LCMS/GCMS) Specimen Weight: 161.600 mg

Dilution Factor: 500.000

Analyte	LOQ (ppm)	Action Level (ppm)	Result (ppm)	Analyte	LOQ (ppm)	Action Level (ppm)	Result (ppm)
1,1-Dichloroethene	0.16	8	<LOQ	Heptane	1.39	5000	<LOQ
1,2-Dichloroethane	0.04	5	<LOQ	Hexane	1.17	290	<LOQ
Acetone	2.08	5000	<LOQ	Isopropyl alcohol	1.39	500	<LOQ
Acetonitrile	1.17	410	<LOQ	Methanol	0.69	3000	<LOQ
Benzene	0.02	2	<LOQ	Methylene chloride	2.43	600	<LOQ
Butanes	2.5	2000	<LOQ	Pentane	2.08	5000	<LOQ
Chloroform	0.04	60	<LOQ	Propane	5.83	2100	<LOQ
Ethanol	2.78	5000	<LOQ	Toluene	2.92	890	<LOQ
Ethyl Acetate	1.11	5000	<LOQ	Total Xylenes	2.92	2170	<LOQ
Ethyl Ether	1.39	5000	<LOQ	Trichloroethylene	0.49	80	<LOQ
Ethylene Oxide	0.1	5	<LOQ				

**Mycotoxins**  
Specimen Weight: 268.200 mg

Dilution Factor: 5.593

Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Aflatoxin B1	6	20	<LOQ	Aflatoxin G2	6	20	<LOQ
Aflatoxin B2	6	20	<LOQ	Ochratoxin A	12	20	<LOQ
Aflatoxin G1	6	20	<LOQ				

**Heavy Metals**  
Specimen Weight: 247.700 mg

Dilution Factor: 201

Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Arsenic (As)	100	1500	<LOQ	Lead (Pb)	100	500	<LOQ
Cadmium (Cd)	100	500	<LOQ	Mercury (Hg)	100	3000	<LOQ

*Xueli Gao*  
Xueli Gao Lab Toxicologist  
Ph.D., DABT

*Aixia Sun*  
Aixia Sun Lab Director/Principal Scientist  
D.H.Sc., M.Sc., B.Sc., MT (AAB)



Definitions and Abbreviations used in this report: \*Total CBD = CBD + (CBD-A \* 0.877). \*Total CBDV = CBDV + (CBDVA \* 0.87). \*Total THC = THCA-A \* 0.877 + Delta 9 THC. \*Total THCV = THCV + (THCVA \* 0.87). \*CBG Total = (CBGA \* 0.877) + CBG. \*CBN Total = (CBNA \* 0.877) + CBN. \*Total CBC = CBC + (CBCA \* 0.877). \*Total THC-O-Acetate = Delta 8 THC-O-Acetate + Delta 9 THC-O-Acetate. \*Other Cannabinoids Total = Total Cannabinoids - All the listed cannabinoids on the summary section. \*Total Detected Cannabinoids = Delta8a10a-THC + Delta8-THC + Total CBN + CBT + Delta8-THCV + Total CBG + Total CBD + Total THCV + CBL + Total THC + Total CBC + Total CBDV + Delta10-THC + Total THC-O-Acetate. \*Analyte Details above show the Dry Weight Concentrations unless specified as 12% moisture concentration. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram (cfu/g) = Colony Forming Unit per Gram, LOD = Limit of Detection, (µg/g) = Microgram per Gram (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = aw (area ratio) = Area Ratio, (mg/Kg) = Milligram per Kilogram. \*Measurement of Uncertainty = +/- 10%

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DEA No. RA0571996  
FL License # CMTL-0003  
CLIA No. 10D1094068

## Certificate of Analysis

Compliance Test

**STRAIGHT HEMP**  
5135 W 58TH AVE, UNIT 5  
ARVADA, CO 80002

Batch # VA020  
Batch Date: 2022-04-05  
Extracted From: Hemp

Sampling Method: MSP 7.3.1  
Test Reg State: Florida

Order # STR220405-010001  
Order Date: 2022-04-05  
Sample # AACR268

Sampling Date: 2022-04-06  
Lab Batch Date: 2022-04-06  
Completion Date: 2022-04-11

Initial Gross Weight: 20.422 g



### Pathogenic SAE (qPCR)

**Passed**  
(qPCR)

Specimen Weight: 229.900 mg

Dilution Factor: 1.000

Analyte	Action Level (cfu/g)	Result (cfu/g)	Analyte	Action Level (cfu/g)	Result (cfu/g)
Aspergillus (Flavus, Fumigatus, Niger, Terreus)	1	Absence in 1g	Salmonella	1	Absence in 1g
E.Coli	1	Absence in 1g			



### 2,3-butanedione(Diacetyl)

**Passed**  
(GCMS)

Specimen Weight: 161.600 mg

Dilution Factor: 500.000

Analyte	LOQ (ppm)	Result (ppm)
2,3-Butanedione	0.024	<LOQ



### Listeria Monocytogenes

**Passed**  
(qPCR)

Specimen Weight: 996.100 mg

Dilution Factor: 1.000

Analyte	Action Level (cfu/g)	Result
Listeria Monocytogenes	1	Absence in 1g



### Vitamin E (Tocopheryl Acetate)

**Passed**  
(LC-MS)

Specimen Weight: 268.200 mg

Dilution Factor: 5.593

Analyte	Result (ppb)
Vitamin E Acetate	<LOQ

*Xueli Gao*  
Xueli Gao Lab Toxicologist  
Ph.D., DABT

*Aixia Sun*  
Aixia Sun Lab Director/Principal Scientist  
D.H.Sc., M.Sc., B.Sc., MT (AAB)



Definitions and Abbreviations used in this report: \*Total CBD = CBD + (CBD-A \* 0.877), \*Total CBDV = CBDV + (CBDVA \* 0.87), \*Total THC = THCA-A \* 0.877 + Delta 9 THC, \*Total THCV = THCV + (THCVA \* 0.87), \*CBG Total = (CBGA \* 0.877) + CBG, \*CBN Total = (CBNA \* 0.877) + CBN, \*Total CBC = CBC + (CBCA \* 0.877), \*Total THC-O-Acetate = Delta 8 THC-O-Acetate + Delta 9 THC-O-Acetate, \*Other Cannabinoids Total = Total Cannabinoids - All the listed cannabinoids on the summary section, \*Total Detected Cannabinoids = Delta8a10a-THC + Delta8-THC + Total CBN + CBT + Delta8-THCV + Total CBG + Total CBD + Total THCV + CBL + Total THC + Total CBC + Total CBDV + Delta10-THC + Total THC-O-Acetate, \*Analyte Details above show the Dry Weight Concentrations unless specified as 12% moisture concentration. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram (cfu/g) = Colony Forming Unit per Gram, LOD = Limit of Detection, (µg/g) = Microgram per Gram (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = aw (area ratio) = Area Ratio, (mg/Kg) = Milligram per Kilogram, \*Measurement of Uncertainty = +/- 10%

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