

CERTIFICATE OF ANALYSIS

CUSTOMER INFORMATION

Customer: Shenandoah Valley Hemp
Sample Received On: 10/06/2023
Date COA Released: 10/13/2023

SAMPLE INFORMATION

Sample Name: Energize 750mg -- 10/3/2023
Sample Description: Tincture
Sample ID: SAMPLE- 15586
Batch ID: 0781630020049930



CANNABINOID POTENCY				Date Tested: 10/06/2023 Operator: Dan Blader
ANALYTE	LOD (mg/g)	LOQ (mg/g)	Concentration (mg/g)	Concentration (%)
CBD	0.04	0.12	25.72	2.57
CBDA	0.04	0.12	0.32	0.03
delta9 THC	0.04	0.12	0.42	0.04
delta9 THCA	0.04	0.12	ND	ND
CBG	0.04	0.12	0.25	0.03
CBGA	0.04	0.12	ND	ND
CBC	0.04	0.12	0.79	0.08
CBCA	0.04	0.12	ND	ND
CBDV	0.04	0.12	ND	ND
CBDVA	0.04	0.12	ND	ND
THCV	0.04	0.12	ND	ND
THCVA	0.04	0.12	ND	ND
CBN	0.04	0.12	ND	ND
delta8 THC	0.04	0.12	ND	ND
Total CBD			26.00	2.60
Total THC			0.42	0.04

The sample was analyzed for cannabinoids following *SOP-VA-1149 Cannabinoid Potency*.

Total CBD = CBDA * 0.877 + CBD

Total delta-9 THC = THCA * 0.877 + delta-9 THC

The Measurement Uncertainty for Total THC at 0.3% is +/-0.05%. The range for Total THC is 0.25%-0.35%.

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TERPENE PROFILE		Date Tested: 10/09/2023 Operator: Rebecca Hobden
ANALYTE	Concentration (mg/g)	Concentration (%)
α-Pinene	0.00	0.00
Camphene	0.00	0.00
β-Pinene	0.00	0.00
Myrcene	0.00	0.00
α-Terpinene	0.00	0.00
Limonene	4.32	0.43
Ocimene	0.00	0.00
γ-Terpinene	0.00	0.00
Terpinolene	0.00	0.00
Linalool	0.00	0.00
α-Humulene	0.00	0.00
β-Caryophyllene	0.00	0.00
Δ3-Carene	0.00	0.00
Cineole/Eucalyptol	0.00	0.00
Isopulegol	0.00	0.00
α-Bisabolol	0.00	0.00
p-Cymene	0.00	0.00

The sample was analyzed for terpenes using Head-Space GasChromatography with Mass Spectrometric detection (GC-MS) following *SOP-VA-1539*. The LOQ for the method is 10ppm or 0.001%.

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PESTICIDES		Date Tested: 10/12/2023 Operator: Shawn Manns
ANALYTE	RESULTS (PPM)	
Abamectin	ND	
Acephate	ND	
Acetamiprid	ND	
Acequinocyl	ND	
Azoxystrobin	ND	
Aldicarb	ND	
Bifenazate	ND	
Bifenthrin	ND	
Boscalid	ND	
Carbaryl	ND	
Carbofuran	ND	
Chlorantraniliprole	ND	
Chlorfenapyr	ND	
Chlorpyrifos	ND	
Clofentezine	ND	
Cyfluthrin	ND	
Cypermethrin	ND	
Daminozide	ND	
Diazinon	ND	
Dichlorvos	ND	
Dimethoate	ND	
Ethoprophos	ND	
Etofenprox	ND	
Etoxazole	ND	
Fenpyroximate	ND	
Fenoxycarb	ND	
Fipronil	ND	
Flonicamid	ND	
Fludioxonil	ND	
Hexythiazox	ND	
Imazalil	ND	

PESTICIDES		Date Tested: 10/12/2023 Operator: Shawn Manns
ANALYTE	RESULTS (PPM)	
Imidacloprid	ND	
Kresoxim-methyl	ND	
Malathion	ND	
Metalaxyl	ND	
Methyl Parathion	ND	
Methomyl	ND	
Methiocarb	ND	
MGK-264	ND	
Myclobutanil	ND	
Naled	ND	
Oxamyl	ND	
Paclobutrazol	ND	
Prallethrin	ND	
Permethrin	ND	
Phosmet	ND	
Piperonyl butoxide	ND	
Propiconazole	ND	
Propoxur	ND	
Pyrethrin	ND	
Pyridaben	ND	
Spinosad	ND	
Spiromesifen	ND	
Spirotetramat	ND	
Spiroxamine	ND	
Thiacloprid	ND	
Thiamethoxam	ND	
Tebuconazole	ND	
Trifloxystrobin	ND	

The sample was analyzed for pesticides using LiquidChromatography with Mass Spectrometric detection (LC-MS/MS) following *SOP-VA-1581*. The LOQ for the method is 25ppb or 0.025ppm.

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HEAVY METALS			
Date Tested: 10/12/2023 Operator: Rebecca Hobden			
ANALYTE	LOD	LOQ	RESULTS (PPM)
Arsenic	0.009	0.015	<LOQ
Cadmium	0.003	0.005	ND
Lead	0.005	0.013	ND
Mercury	0.019	0.03	ND

The sample was analyzed for heavy metals in Inductively Coupled Plasma Mass Spectrometry (ICP-MS) following *SOP-VA-1165*.

MYCOTOXINS	
Date Tested: 10/12/2023 Operator: Shawn Manns	
ANALYTE	RESULTS (PPB)
Ochratoxin A	ND
Aflatoxin B1	ND
Aflatoxin B2	ND
Aflatoxin G1	ND
Aflatoxin G2	ND

The sample was analyzed for mycotoxins using Liquid Chromatography with Mass Spectrometric detection (LC-MS/MS) following *SOP-VA-1581*. The LOQ for the method is 25ppb or 0.025ppm.

RESIDUAL SOLVENTS				
Date Tested: 10/06/2023 Operator: Rebecca Hobden				
ANALYTE	LOD	LOQ	RESULTS (PPM)	RESULTS (%)
Acetone	2.0	10.0	ND	0.00
Acetonitrile	1.0	2.0	ND	0.00
Benzene	1.0	2.0	ND	0.00
Chloroform	0.5	2.0	ND	0.00
Cyclohexane	1.0	2.0	ND	0.00
1,2-Dichloroethane	1.0	2.0	ND	0.00
Diethyl Ether	1.0	2.0	ND	0.00
Ethanol	2.0	10.0	ND	0.00
Ethyl acetate	1.0	2.0	ND	0.00
Methanol	2.0	10.0	ND	0.00
Methylene chloride	1.0	2.0	ND	0.00
n-Heptane	1.0	2.0	ND	0.00
n-Hexane	1.0	2.0	ND	0.00
n-Pentane	2.0	10.0	ND	0.00
2-Propanol (isopropanol)	2.0	10.0	ND	0.00
Toluene	0.5	2.0	ND	0.00
Total Xylene	1.0	2.0	ND	0.00
Trichloroethylene	0.5	2.0	ND	0.00

The sample was analyzed for residual solvents using Head-Space Gas Chromatography with Mass Spectrometric detection (GC-MS) following *SOP-VA-1301*.

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MICROBIOLOGICAL IMPURITY		Date Tested: 10/11/2023 Operator: Sarah Earles
Microbe	CFU/g	
Total Aerobic Microbial Count(TAMC)	ND	
Total Yeast and Mold Count(TYMC)	ND	
Microbe	CFU/g	
E. coli	Absent	
Salmonella	Absent	

The sample was analyzed for microbial contamination using either qPCR or Petrifilm that follow SOP-701, 702, 703-GA or SOP-VA-1382.

ND = Not Detected, LOD = Limit of Detection, LOQ = Limit of Quantification

PPM = Parts per Million = mg/kg, PPB = Parts per Billion = ug/kg, CFU/g = Colony Forming Units per gram

Results below the LOQ are reported as ND.

Action limits are set by the Virginia Board of Pharmacy, Regulations Governing Pharmaceutical Processors. 18VAC 110-60-300.

Where statements of conformity are reported ('pass' vs 'fail'), the simple acceptance decision rule is applied.

Testing results are based solely on the sample submitted to Green Analytics Virginia in the condition it was received. This product has been tested by Green Analytics Virginia using valid testing methodologies. Values reported relate only to the product tested. Values reported may be an average of multiple test results. Green Analytics Virginia makes no claims as to the efficacy, safety, or other risks with any detected or non-detected levels of any compound reported herein. This Certificate of Analysis shall not be reproduced except in full with the express written consent of the Green Analytics Virginia.

Prepared by:

Shawn Manns, Lab Manager

Approved by:

Rebecca Hobden, Lab Director