



## Certificate of Analysis for

Balanced Health Botanicals  
1500 W Hampden Ave, Unit 5G  
Sheridan, CO 80110  
Phone: (833) 215-8482



Received: 11/28/2023 @ 18.9 °C

Sleep FSO Tincture 1:3 Ratio (150mg  
CBN:450mg CBD) (1232859)

Sample ID: 2311B20-001

### ACR.1a: AC by mass via AOAC 2015.13 (Petrifilm™) Analyzed 11/28/23

Aerobic Plate Count	< 10	CFU/g
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### Asp.1: Aspergillus via AOAC PTM 022103 (Gene-Up® PCR) Analyzed 11/30/23

Aspergillus flavus	Negative	/1 g	Aspergillus fumigatus	Negative	/1 g
Aspergillus niger	Negative	/1 g	Aspergillus terreus	Negative	/1 g

### aW.2: aW via AquaLab Tunable Diode Laser Methods Analyzed 11/29/23

Water Activity	0.132	aW
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### CBD.1: Cannabinoids via MBL-HPLC2 Analyzed 11/30/23

Cannabichromene (CBC)	0.729	mg/mL	Cannabicitran (CBT)	0.496	mg/mL
Cannabidiol (CBD)	15.9	mg/mL	Cannabidiolic Acid (CBDA)	0.388	mg/mL
Cannabidivarin (CBDV)	0.388	mg/mL	Cannabigerol (CBG)	0.411	mg/mL
Cannabinol (CBN)	5.40	mg/mL	Delta - 9 THC (THC)	0.542	mg/mL
Delta 9 - Tetrahydrocannabinolic Acid (THCA-A)	< 0.100	mg/mL	Potential CBD	1.62	% (g/100mL)
Potential THC	0.054	% (g/100mL)	Tetrahydrocannabivarin (THCV)	< 0.100	mg/mL

### CCR.1a: CC by mass via AOAC OM 2018.13 (Petrifilm™) Analyzed 11/28/23

Total Coliform Bacteria	< 10	CFU/g
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### ECR.1a: EC by mass via AOAC OM 2018.13 (Petrifilm™) Analyzed 11/28/23

Escherichia coli	< 10	CFU/g
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### GU Pro STEC SLM: STEC Salmonella via AOAC PTM 092101 Analyzed 11/30/23

Salmonella spp.	Negative	/25 g	STEC	Negative	/25 g
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### ICPMS.1: Metals via FDA - EAM:2008 (ICP/MS) Analyzed 11/30/23

Arsenic (As)	< 0.020	mg/kg (ppm)	Cadmium (Cd)	< 0.010	mg/kg (ppm)
Lead (Pb)	< 0.005	mg/kg (ppm)	Mercury (Hg)	< 0.005	mg/kg (ppm)

### Myc.1: Mycotoxins by LC-MS Analyzed 11/30/23

Aflatoxin B1	< 10	µg/kg (ppb)	Aflatoxin B2	< 10	µg/kg (ppb)
Aflatoxin G1	< 10	µg/kg (ppb)	Aflatoxin G2	< 10	µg/kg (ppb)
Ochratoxin A	< 20	µg/kg (ppb)			



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### Pest.1: Pesticides by LC/MS/MS (Agilent App - Determination of Pesticides and Mycotoxins) Analyzed 11/30/23

Abamectin (B1a + B1b)	< 50	µg/kg (ppb)	Acephate	< 25	µg/kg (ppb)
Acequinocyl	< 25	µg/kg (ppb)	Acetamiprid	< 10	µg/kg (ppb)
Aldicarb	< 10	µg/kg (ppb)	Azoxystrobin	< 10	µg/kg (ppb)
Bifenazate	< 50	µg/kg (ppb)	Bifenthrin	< 25	µg/kg (ppb)
Boscalid	< 50	µg/kg (ppb)	Carbaryl	< 25	µg/kg (ppb)
Carbofuran	< 25	µg/kg (ppb)	Chlorantraniliprole	< 25	µg/kg (ppb)
Chlorfenapyr	< 100	µg/kg (ppb)	Chlorpyrifos	< 10	µg/kg (ppb)
Clofentezine	< 10	µg/kg (ppb)	Coumaphos	< 10	µg/kg (ppb)
Cyfluthrin (Baythroid)	< 50	µg/kg (ppb)	Cypermethrin	< 50	µg/kg (ppb)
Daminozide	< 25	µg/kg (ppb)	Diazinon	< 10	µg/kg (ppb)
Dibrom (Naled)	< 50	µg/kg (ppb)	Dichlorvos	< 50	µg/kg (ppb)
Dimethoate	< 25	µg/kg (ppb)	Dimethomorph	< 25	µg/kg (ppb)
Ethofenprox	< 10	µg/kg (ppb)	Ethoprophos (Prophos)	< 25	µg/kg (ppb)
Etoxazole	< 25	µg/kg (ppb)	Fenhexamid	< 50	µg/kg (ppb)
Fenoxycarb	< 10	µg/kg (ppb)	Fenpyroximate	< 25	µg/kg (ppb)
Fipronil	< 10	µg/kg (ppb)	Fonicamid	< 25	µg/kg (ppb)
Fludioxonil	< 25	µg/kg (ppb)	Hexythiazox	< 10	µg/kg (ppb)
Imazalil	< 50	µg/kg (ppb)	Imidacloprid	< 10	µg/kg (ppb)
Kresoxim Methyl	< 10	µg/kg (ppb)	Malathion	< 100	µg/kg (ppb)
Metalaxyl	< 25	µg/kg (ppb)	Methiocarb	< 50	µg/kg (ppb)
Methomyl	< 25	µg/kg (ppb)	Oxamyl	< 10	µg/kg (ppb)
Paclobutrazol	< 25	µg/kg (ppb)	Permethrin	< 10	µg/kg (ppb)
Phosdrin (Mevinphos)	< 50	µg/kg (ppb)	Phosmet	< 10	µg/kg (ppb)
Piperonyl Butoxide	< 10	µg/kg (ppb)	Prallethrin	< 25	µg/kg (ppb)
Propiconazol	< 25	µg/kg (ppb)	Propoxur	< 25	µg/kg (ppb)
Pyrethrins	< 50	µg/kg (ppb)	Pyridaben	< 10	µg/kg (ppb)
Spinetoram	< 25	µg/kg (ppb)	Spinosad A	< 10	µg/kg (ppb)
Spinosad D	< 50	µg/kg (ppb)	Spiromesifen	< 25	µg/kg (ppb)
Spirotetramat	< 25	µg/kg (ppb)	Spiroxamine	< 25	µg/kg (ppb)
Systhane (Myclobutanil)	< 50	µg/kg (ppb)	Tebuconazol (Folicur)	< 25	µg/kg (ppb)
Thiacloprid	< 25	µg/kg (ppb)	Thiamethoxam	< 25	µg/kg (ppb)
Trifloxystrobin	< 10	µg/kg (ppb)			





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### ResSolv.2: Residual Solvents by Headspace GC/MS (VF-624MS) Analyzed 12/04/23

(+/-)-2-Butanol	< 10	mg/kg (ppm)	1,1-Dichloroethene	< 5	mg/kg (ppm)
1,2-Dichloroethane	< 2	mg/kg (ppm)	1,2-Dimethoxyethane	< 10	mg/kg (ppm)
1,4-Dioxane	< 25	mg/kg (ppm)	1-Butanol	< 50	mg/kg (ppm)
1-Pentanol	< 100	mg/kg (ppm)	1-Propanol	< 100	mg/kg (ppm)
2,2-Dimethylbutane	< 25	mg/kg (ppm)	2,3-Dimethylbutane	< 25	mg/kg (ppm)
2-Ethoxyethanol	< 25	mg/kg (ppm)	2-Methoxyethanol	< 50	mg/kg (ppm)
2-Methyl-1-propanol	< 100	mg/kg (ppm)	2-Methylbutane (Isopentane)	< 75	mg/kg (ppm)
2-Methylpentane	< 25	mg/kg (ppm)	2-Propanol	< 50	mg/kg (ppm)
3-Methyl-1-Butanol	< 100	mg/kg (ppm)	3-Methylpentane	< 25	mg/kg (ppm)
Acetone	< 50	mg/kg (ppm)	Acetonitrile	< 50	mg/kg (ppm)
Anisole	< 50	mg/kg (ppm)	Benzene	< 1	mg/kg (ppm)
Butyl Acetate	< 50	mg/kg (ppm)	Chloroform	< 10	mg/kg (ppm)
Cumene	< 100	mg/kg (ppm)	Cyclohexane	< 50	mg/kg (ppm)
Diethyl ether	< 50	mg/kg (ppm)	Ethanol	< 50	mg/kg (ppm)
Ethyl Acetate	< 50	mg/kg (ppm)	Ethyl benzene	< 25	mg/kg (ppm)
Ethyl Ether	< 100	mg/kg (ppm)	Ethylene Glycol	< 100	mg/kg (ppm)
Ethylene Oxide	< 50	mg/kg (ppm)	Formamide	< 50	mg/kg (ppm)
Heptane	< 50	mg/kg (ppm)	Hexane	< 10	mg/kg (ppm)
Isobutane	< 100	mg/kg (ppm)	Isobutyl acetate	< 50	mg/kg (ppm)
Isopropyl acetate	< 10	mg/kg (ppm)	Methanol	< 50	mg/kg (ppm)
Methyl Acetate	< 100	mg/kg (ppm)	Methylbutyl Ketone	< 25	mg/kg (ppm)
Methylene Chloride	< 50	mg/kg (ppm)	Methylethyl Ketone	< 50	mg/kg (ppm)
Methylisobutyl Ketone	< 100	mg/kg (ppm)	N,N-Dimethylacetamide	< 100	mg/kg (ppm)
N,N-Dimethylformamide	< 10	mg/kg (ppm)	n-Butane	< 100	mg/kg (ppm)
Neopentane	< 100	mg/kg (ppm)	Nitromethane	< 25	mg/kg (ppm)
N-Methylpyrrolidone	< 50	mg/kg (ppm)	Pentane	< 50	mg/kg (ppm)
Propane	< 100	mg/kg (ppm)	Propyl Acetate	< 50	mg/kg (ppm)
Pyridine	< 10	mg/kg (ppm)	Sulfolane	< 100	mg/kg (ppm)
Tert-Butylmethyl Ether	< 50	mg/kg (ppm)	Tetrahydrofuran	< 10	mg/kg (ppm)
Tetralin	< 10	mg/kg (ppm)	Toluene	< 50	mg/kg (ppm)
Trichloroethene	< 50	mg/kg (ppm)	Xylenes (p-, m-, o-)	< 50	mg/kg (ppm)

### YM.1a: YM by mass via AOAC RI 121301 (Petrifilm™) Analyzed 11/28/23

Yeast and Mold < 10 CFU/g

Reported By:

Ryan Connelly, Chemistry Laboratory Manager, 12/5/2023

## LIMITS OF QUANTITATION

### Residual Solvents: ResSolv.2

Analyte	LoQ
(+/-)-2-Butanol	< 10 ppm
1,1-Dichloroethene	< 5 ppm
1,2-Dichloroethane	< 2 ppm
1,4-Dioxane	< 25 ppm
2,2-Dimethylbutane	< 25 ppm
2,3-Dimethylbutane	< 25 ppm
2-Ethoxyethanol	< 75 ppm
2-Methylbutane (Isopentane)	< 75 ppm
2-Methylpentane	< 25 ppm
2-Propanol	< 50 ppm
3-Methylpentane	< 25 ppm
Acetone	< 50 ppm
Acetonitrile	< 50 ppm
Benzene	< 1 ppm
Chloroform	< 10 ppm
Cumene	< 100 ppm
Cyclohexane	< 50 ppm
Diethyl ether	< 50 ppm
Ethanol	< 50 ppm
Nitromethane	< 25 ppm
1,2-Dimethoxyethane	< 10 ppm
Pyridine	< 10 ppm
2-Methoxyethanol	< 50 ppm
Formamide	< 50 ppm
N,N-Dimethylacetamide	< 100 ppm
Ethyl Ether	< 100 ppm
Methyl Acetate	< 100 ppm
Tert-Butylmethyl Ether	< 50 ppm
Methylethyl Ketone	< 50 ppm
Methylbutyl Ketone	< 25 ppm
Methylisobutyl Ketone	< 100 ppm

Analyte	LoQ
Ethyl Acetate	< 50 ppm
Ethyl benzene	< 25 ppm
Ethylene Glycol	< 100 ppm
Ethylene Oxide	< 50 ppm
Heptane	< 50 ppm
Hexane	< 10 ppm
Isobutane	< 100 ppm
Isopropyl acetate	< 10 ppm
Methanol	< 50 ppm
Methylene Chloride	< 50 ppm
N,N-Dimethylformamide	< 10 ppm
n-Butane	< 100 ppm
Neopentane	< 100 ppm
Pentane	< 50 ppm
Propane	< 100 ppm
Tetrahydrofuran	< 10 ppm
Toluene	< 50 ppm
Trichloroethene	< 50 ppm
Xylenes (p-, m-, o-)	< 50 ppm
1-Propanol	< 100 ppm
2-Methyl-1-Propanol	< 100 ppm
1-Butanol	< 50 ppm
Propyl Acetate	< 50 ppm
3-Methyl-1-Butanol	< 100 ppm
Isobutyl Acetate	< 50 ppm
1-Pentanol	< 100 ppm
Butyl Acetate	< 50 ppm
Anisole	< 50 ppm
N-Methylpyrrolidone	< 50 ppm
Tetralin	< 10 ppm
Sulfolane	< 10 ppm

**Pesticides: Pest.1**

Analyte	LoQ
Abamectin (B1a + B1b)	< 0.050 ppm
Acephate	< 0.025 ppm
Acequinocyl	< 0.010 ppm
Acetamiprid	< 0.010 ppm
Aldicarb	< 0.010 ppm
Azoxystrobin	< 0.010 ppm
Bifenazate	< 0.050 ppm
Bifenthrin	< 0.010 ppm
Boscalid	< 0.050 ppm
Carbaryl	< 0.025 ppm
Carbofuran	< 0.025 ppm
Chlorantraniliprole	< 0.025 ppm
Chlorfenapyr	< 0.100 ppm
Chlorpyrifos	< 0.010 ppm
Clofentezine	< 0.010 ppm
Coumaphos	< 0.010 ppm
Cyfluthrin (Baythroid)	< 0.050 ppm
Cypermethrin	< 0.050 ppm
Daminozide	< 0.025 ppm
Diazinon	< 0.010 ppm
Dibrom (Naled)	< 0.050 ppm
Dichlorvos	< 0.050 ppm
Dimethoate	< 0.025 ppm
Dimethomorph	< 0.025 ppm
Ethofenprox	< 0.010 ppm
Ethoprophos (Prophos)	< 0.025 ppm
Etoazole	< 0.025 ppm
Fenhexamid	< 0.050 ppm
Fenoxycarb	< 0.010 ppm
Fenpyroximate	< 0.025 ppm
Fipronil	< 0.010 ppm
Flonicamid	< 0.025 ppm

Analyte	LoQ
Fludioxonil	< 0.025 ppm
Hexythiazox	< 0.010 ppm
Imazalil	< 0.050 ppm
Imidacloprid	< 0.010 ppm
Kresoxim Methyl	< 0.010 ppm
Malathion	< 0.100 ppm
Metalaxyl	< 0.025 ppm
Methiocarb	< 0.050 ppm
Methomyl	< 0.025 ppm
Oxamyl	< 0.010 ppm
Paclobotrazol	< 0.025 ppm
Permethrins	< 0.010 ppm
Phosdrin (Mevinphos)	< 0.050 ppm
Phosmet	< 0.010 ppm
Piperonyl Butoxide	< 0.010 ppm
Prallethrin	< 0.025 ppm
Propiconazol	< 0.025 ppm
Propoxur	< 0.025 ppm
Pyrethrins	< 0.050 ppm
Pyridaben	< 0.010 ppm
Spinetoram	< 0.025 ppm
Spinosad A	< 0.010 ppm
Spinosad D	< 0.050 ppm
Spiromesifen	< 0.025 ppm
Spirotetramat	< 0.025 ppm
Spiroxamine	< 0.025 ppm
Systhane (Myclobutanil)	< 0.050 ppm
Tebuconazol (Folicur)	< 0.025 ppm
Thiacloprid	< 0.025 ppm
Thiamethoxam	< 0.025 ppm
Trifloxystrobin	< 0.010 ppm

**Heavy Metals: ICPMS.1**

Analyte	LoQ
Arsenic	< 0.020 ppm
Cadmium	< 0.010 ppm
Mercury	< 0.005 ppm
Lead	< 0.005 ppm

**Mycotoxins: Myco.1**

Analyte	LoQ
Aflatoxin B1	< 0.010 ppm
Aflatoxin B2	< 0.010 ppm
Aflatoxin G1	< 0.010 ppm
Aflatoxin G2	< 0.010 ppm
Ochratoxin A	< 0.020 ppm



### Cannabinoids: CBD.1

Analyte	LoQ
Cannabichromene	< 0.200 mg/g
Cannabicitran	< 0.200 mg/g
Cannabidiol	< 0.100 mg/g
Cannabidiolic Acid	< 0.100 mg/g
Cannabidivarin	< 0.100 mg/g

Analyte	LoQ
Cannabigerol	< 0.100 mg/g
Cannabinol	< 0.100 mg/g
Delta - 9 THC	< 0.0100 %
Delta 9 - THCA	< 0.0100 %
Tetrahydrocannabivarin	< 0.100 mg/g

### Microbials: APC.1a, EC.1a, TC.1a, Y&M.1a, STEC.1.a, Salm.1a, LMono.2

Analyte	LoQ
APC	< 10 CFU/g
Coliform/E. coli	< 10 CFU/g
Yeast/Mold	< 10 CFU/g

Analyte	LoQ
Salmonella	Negative in 25g
STEC	Negative in 25g
L. monocytogenes	Negative in 10g