



CERTIFICATE OF ANALYSIS

PRODUCT NAME: Broad Spectrum CBD Hemp Oil

PRODUCT CODE: BO-NO-Y-Z-A

LOT NUMBER: CONO20-13

DATE OF MANUFACTURE: 06JAN2020
(DDMMYYYY)

EXPIRATION DATE: 06JAN2022

*(Expiration date is 24 months
under sealed conditions.)*

INGREDIENTS: Broad Spectrum CBD Oil (0.0% THC)

Parameter	Method ¹	Specification		Results
Appearance		Viscous Oil, Possible Crystal Formation		Pass
Color	QCU002	Pale yellow to amber to brown		Pass
Dissolution		Soluble and translucent		Pass
Cannabinoids		LOQ (ppm)	Wt. (%)	(mg/g)
CBD		10	87.881	878.803
CBD-A		20	< LOQ	< LOQ
Δ9-THC		5	< LOQ	< LOQ
THC-A		5	< LOQ	< LOQ
CBN		5	< LOQ	< LOQ
CBN-A		5	< LOQ	< LOQ
CBG	QCU001	5	< LOQ	< LOQ
CBG-A	(UHPLC-DAD)	20	< LOQ	< LOQ
CBC		5	< LOQ	< LOQ
CBC-A	and	5	< LOQ	< LOQ
Δ8-THC		5	< LOQ	< LOQ
CBDV	UHPLC-PDA	5	1.444	14.437
CBDV-A	(Green Scientific)	5	< LOQ	< LOQ
THCV		5	< LOQ	< LOQ
Potency – Total CBD		NLT 80.0 wt%		87.9 wt%
Total THC		0.0%		0.0%
Terpenes		For Information Only		
β-Caryophyllene				0.101%
Caryophyllene Oxide				0.055%
Guaiol	GC-MS			0.041%
Linalool	(Green Scientific)			0.137%

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Parameter	Method ¹	Specification	Results
Pesticides	LC/MS GC/MS (Green Scientific)	Conforms to EPA limits	Conforms to EPA limits
Residual Solvents			
Ethanol		5000 ppm	< LOQ
Methanol		3000 ppm	ND
Pentane	USP	5000 ppm	ND
Acetone	<467>	5000 ppm	< LOQ
Isopropyl Alcohol	GC FID	5000 ppm	ND
Heptane	(Green Scientific)	5000 ppm	ND
Hexane		290 ppm	< LOQ
Heavy Metals			
Arsenic	USP	<1.5 ppm	< LOQ
Cadmium	<2232>	<0.5 ppm	< LOQ
Lead	ICP-MS	<0.5 ppm	< LOQ
Mercury	(Green Scientific)	<0.2 ppm	< LOQ
Microbial Limits			
Total aerobic plate count	USP	<1000 cfu/g	Below Threshold
Total yeast & mold	<2023>	<100 cfu/g	Below Threshold
Total coliforms	(Green Scientific)	None	Below Threshold
E. coli		None	< LOD
Salmonella		None	< LOD
Mycotoxins			
Aflatoxin B1	USP	<5ppb	ND
Aflatoxin B2	<561>	<5ppb	ND
Aflatoxin G1	LC-MS	<5ppb	ND
Aflatoxin G2	(Green Scientific)	<5ppb	ND
Total Mycotoxins		<20ppb	ND

Notes: ¹according to Folium Biosciences internal analytical methods, US Pharmacopeia or 3rd party contract laboratory method.
ND=Not Detected; LOQ=Limit of Quantitation; LOD=Limit of Detection

Results conform to all specifications: **Yes** or No

Note: When sampling, manufacturing, or formulating with this oil, the oil MUST first be heated and liquefied at 70-75°C and mixed thoroughly. Attempting to sample the oil when it is in a semi-solid state will not result in accurate analytical results.

Storage: Room Temperature, Protect from Light

Prepared by:  Date: 04 Aug 2020
Quality Control, Folium Biosciences

Reviewed by:  Date: 05 AUG 2020
Quality Control, Folium Biosciences

This product is not intended to diagnose, treat, cure, or prevent any disease and has not been evaluated by the FDA.
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