



Full Spectrum Hemp-Derived CBD 2000mg Tincture *Natural*

Batch Specific Information

Product Name:	Kōkua 2000mg CBD Tincture, <i>Natural</i>
Product Description:	Full Spectrum Oil-Based Tincture, 1 fl oz (30 mL)
Product Ingredients:	Coconut MCT Oil*, Full Spectrum Hemp Extract^
Batch No.:	BP01T15
Best if Used By:	August 2021
Date of Production:	February 2020
Hemp Extraction Method:	CO ₂ Extraction <i>In-House</i>
Farm Location:	Crestwood, Kentucky

Produced By:
Botanical Processing LLC
PO Box 32127
Louisville, KY 40232
(502) 742-7151
customer@botanical-processing.com
aloha@kokuacreations.com

*USDA Certified Organic Ingredient
^Produced in-house from locally sourced hemp flower

This product contains less than 0.3% THC.
These statements have not been evaluated by the Food
and Drug Administration. This product is not intended to
diagnose, treat, cure, or prevent any disease.



Marie Grinstead, PhD
Born in Hawai'i, Raised in Kentucky.

ABOUT KŌKUA

In 2015, Marie founded Botanical Processing, a CO₂ extraction laboratory, while working towards her doctorate in engineering. As an extraction scientist, she focuses on researching and developing optimal CO₂ extraction methods as part of producing safe and effective natural products. Marie is humbled by the opportunity to share her wellness creations, and Kōkua is uniquely made using her preferred ingredients and methods.

With no better way to express her motivation behind the brand, she chose the Hawaiian word, Kōkua, meaning *the desire to help, aid, and assist others*. When she is not in the lab, Marie spends time with her family and devotes efforts towards her dance studio, 'Ike Roa, which exists to share and perpetuate the beautiful, diverse cultures of Polynesia.

Kōkua *the deep, self-less desire to help, aid, and assist others.*

KokuaCreations.com

CERTIFICATE OF ANALYSIS

ISO/IEC 17025:2017 ACCREDITATION #103104



Order #: 48671
 Order Name: MCT Oil Tincture
 Batch#: BP01T15
 Received: 02/13/2020
 Completed: 02/18/2020



Botanical Processing LLC
 marie@botanical-processing.com



Sample



0.143% D9-THC	7.580% Total CBD
2,363.7 mg Cannabinoids per bottle	2,148.8 mg CBD per bottle

Cannabinoids Test

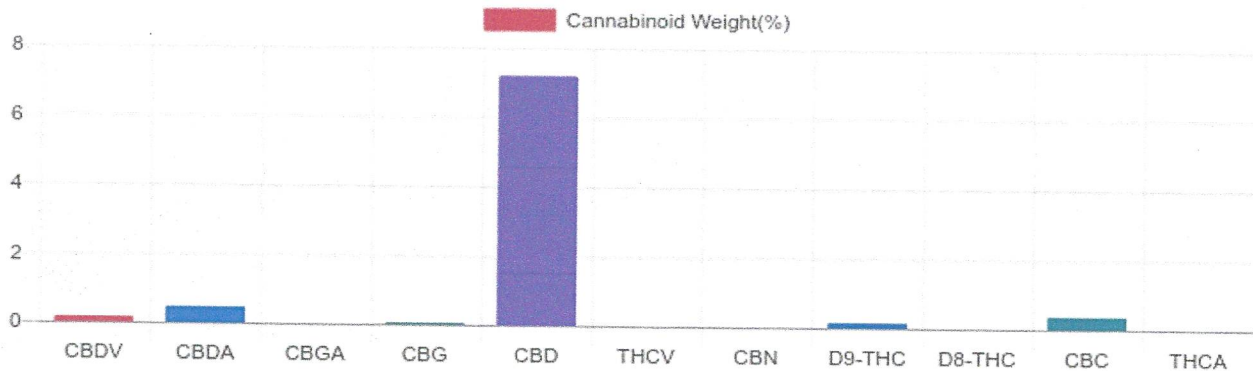
SHIMADZU INTEGRATED UPLC-PDA
 GSL SOP 400

PREPARED: 02/13/2020 16:10:16

UPLOADED: 02/18/2020 16:14:35

Cannabinoids	LOQ	weight(%)	mg/g	mg/bottle
D9-THC	10 PPM	0.143%	1.427	40.5
THCA	10 PPM	N/D	N/D	N/D
CBD	10 PPM	7.173%	71.730	2,033.5
CBDA	20 PPM	0.464%	4.637	131.5
CBDV	20 PPM	0.152%	1.519	43.1
CBC	10 PPM	0.364%	3.638	103.1
CBN	10 PPM	N/D	N/D	N/D
CBG	10 PPM	0.042%	0.423	12.0
CBGA	20 PPM	N/D	N/D	N/D
D8-THC	10 PPM	N/D	N/D	N/D
THCV	10 PPM	N/D	N/D	N/D
TOTAL D9-THC		0.143%	0.143%	40.5
TOTAL CBD*		7.580%	75.797	2,148.8
TOTAL CANNABINOIDS		8.338%	83.374	2,363.7

1 bottle = 30 ml per bottle x density (0.945)
 x Cannabinoid concentration



Reporting Limit 10 ppm

*Total CBD = CBD + CBDA x 0.877

N/D - Not Detected, B/LOQ - Below Limit of Quantification

Dr. Andrew Hall, Ph.D., Chief Scientific Officer

Ben Witten, MS, MT., Lab Director

Green Scientific Labs
 info@greenscientificlabs.com
 1-833 TEST CBD



Green Scientific Labs uses its best efforts to deliver high quality results and to verify that the data contained therein are based on sound scientific judgment and levels listed are guidelines only and all data was reported based on standard laboratory procedures and deviations. However Green Scientific Labs makes no warranties or claims to that effect and further shall not be liable for any damage or misrepresentation that may result from the use or misuse of the data contained herein in any way. Further, Green Scientific Labs makes no claims regarding representations of the analyzed sample to the larger batch from which it was taken. Data and information in this report are intended solely for the individual(s) for whom samples were submitted and as part of our strict confidentiality policy, Green Scientific Labs can only discuss results with the original client of record.

Certificate ID: 77546

Received: 2/13/20

 Scan QR Code
 for authenticity

Botanical Processing LLC

Client Sample ID: MCT Oil Tincture

4484 Robards Ln

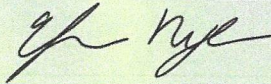
Lot Number: BP01T15

Louisville, KY 40218

Matrix: Tincture/Infused Oil - MCT Oil

Attn: Marie Grinstead



Authorization: Elizabeth R. Nye, Lab Director	Signature: 	Date: 2/21/2020
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The data contained within this report was collected in accordance with the requirements of ISO/IEC 17025:2017. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

HM: Heavy Metal Analysis [WI-10-13]

Analyst: CJS

Test Date: 2/19/2020

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

77546-HM

Symbol	Metal	Conc. ¹ (µg/kg)	RL	Use Limits ² (µg/kg)		Status
				All	Ingestion	
As	Arsenic	ND	50	200	1500	PASS
Cd	Cadmium	ND	50	200	500	PASS
Hg	Mercury	ND	50	100	1500	PASS
Pb	Lead	ND	50	500	1000	PASS

1) ND = None detected to Lowest Limits of Detection (LLD)

2) MA Dept. of Public Health: Protocol for MMJ and MIPS, Exhibit 4(a) for all products.

3) USP exposure limits based on daily oral dosing of 1g of concentrate for a 110 lb person.

MB1: Microbiological Contaminants [WI-10-09]

Analyst: MM

Test Date: 2/14/2020

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

77546-MB1

Symbol	Analysis	Results	Units	Limits*	Status
AC	Total Aerobic Bacterial Count	<100	CFU/g	100,000 CFU/g	PASS
CC	Total Coliform Bacterial Count	<100	CFU/g	1,000 CFU/g	PASS
EB	Total Bile Tolerant Gram Negative Count	<100	CFU/g	1,000 CFU/g	PASS
YM	Total Yeast & Mold	<100	CFU/g	10,000 CFU/g	PASS

Recommended limits established by the American Herbal Pharmacopoeia (AHP) monograph for Cannabis Inflorescence [2013], for consumable botanical products, including processed and unprocessed cannabis materials, and solvent-based extracts. Note: All recorded Microbiological tests are within the established limits.

MB2: Pathogenic Bacterial Contaminants [WI-10-10]

Analyst: LabAdmin

Test Date: 2/15/2020

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

77546-MB2

Test ID	Analysis	Results	Units	Limits*	Status
77546-ECPT	E. coli (O157)	Negative	NA	Non Detected	PASS
77546-SPT	Salmonella	Negative	NA	Non Detected	PASS

Note: All recorded pathogenic bacteria tests passed.

MY: Mycotoxin Testing [WI-10-05]

Analyst: AKR

Test Date: 2/14/2020

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

77546-MY

Test ID	Date	Results	MDL	Limits	Status*
Total Aflatoxin	2/14/2020	< MDL	2 ppb	< 20 ppb	PASS
Total Ochratoxin	2/14/2020	< MDL	3 ppb	< 20 ppb	PASS

PST: Pesticide Analysis [WI-10-11]

Analyst: CJR

Test Date: 2/20/2020

The client sample was analyzed for pesticides using Liquid Chromatography with Mass Spectrometric detection (LC/MS/MS). The method used for sample prep was based on the European method for pesticide analysis (EN 15662).

77546-PST

Analyte	CAS	Result	Units	LLD	Limits (ppb)	Status
Abamectin	71751-41-2	ND	ppb	0.2	300	PASS
Azoxystrobin	131860-33-8	ND	ppb	0.10	40000	PASS
Bifenazate	149877-41-8	ND	ppb	0.10	5000	PASS
Bifenthrin	82657-04-3	ND	ppb	0.20	500	PASS
Cyfluthrin	68359-37-5	ND	ppb	0.50	1000	PASS
Daminozide	1596-84-5	ND	ppb	10.00	10	*
Etoxazole	153233-91-1	ND	ppb	0.10	1500	PASS
Fenoxycarb	72490-01-8	ND	ppb	0.10	10	PASS
Imazalil	35554-44-0	ND	ppb	0.10	10	PASS
Imidacloprid	138261-41-3	ND	ppb	0.10	3000	PASS
Myclobutanil	88671-89-0	ND	ppb	0.10	9000	PASS
Paclobutrazol	76738-62-0	ND	ppb	0.10	10	PASS
Piperonyl butoxide	51-03-6	ND	ppb	0.10	8000	PASS
Pyrethrin	8003-34-7	ND	ppb	0.1	1000	PASS
Spinosad	168316-95-8	ND	ppb	0.1	3000	PASS
Spiromesifen	283594-90-1	ND	ppb	0.10	12000	PASS
Spirotetramat	203313-25-1	ND	ppb	0.10	13000	PASS
Trifloxystrobin	141517-21-7	ND	ppb	0.10	30000	PASS

* Testing limits for ingestion established by the State of California: CCR, Title 16, Division 42, Chapter 5, Section 5313. ND indicates "none detected" above the lower limit of detection (LLD). Analytes marked with (*) indicate analytes for which no recovery was observed for a pre-spiked matrix sample.

VC: Analysis of Volatile Organic Compounds [WI-10-28]

Analyst: JR

Test Date: 2/13/2020

The client sample was analyzed by Head-Space Gas Chromatography (HS-GC). The collected data was compared to data collected for certified reference standards at known concentrations.

77546-VC

Compound	CAS	Amount ¹	Limit ²	RL	Status
Propane	74-98-6	ND	1,000 ppm	100	PASS
Isobutane	75-28-5	ND	1,000 ppm	100	PASS
Butane	106-97-8	ND	1,000 ppm	100	PASS
Methanol	67-56-1	ND	3,000 ppm	100	PASS
Pentane	109-66-0	ND	5,000 ppm	100	PASS
Ethanol	64-17-5	ND	5,000 ppm	100	*
Acetone	67-64-1	ND	5,000 ppm	100	PASS
Isopropanol	67-63-0	ND	5,000 ppm	100	PASS
Acetonitrile	75-05-8	ND	410 ppm	100	PASS
Hexane	110-54-3	ND	290 ppm	100	PASS
Heptane	142-82-5	ND	5,000 ppm	100	PASS

1) ND = Not detected at a level greater than the Reporting Limit (RL).

2) In ppm, based on USP recommended limits for residual solvents, adopted by the Massachusetts Department of Public Health for cannabis concentrates and extracts on 3/31/16. Butane/Propane limits are based on limits established for state of Colorado.

(*) For ethanol, as many formulations contain flavorings based on ethanol extracts of natural products, no status has been assigned.

END OF REPORT