

CERTIFICATE OF ANALYSIS

PRODUCT NAME: CBD Soft Gels Curcumin, 25mg CBD/10mg Curcumin

PRODUCT CODE: GCC3-X-Y-A

LOT NUMBER: GC/C32520-02

DATE OF MANUFACTURE: 26FEB2020 **EXPIRATION DATE:** 26AUG2021

(DDMMYYYY)

(Expiration date is 18 months
under sealed conditions.)

INGREDIENTS:

Composition of Fill: Polysorbate 80, Polysorbate 20, Fractionated Coconut Oil, Broad Spectrum CBD Hemp Oil, β -Caryophyllene, Curcuminoids

Composition of the Shell: Bovine-derived Gelatin, Glycerin, Water

Parameter	Method ¹	Specification	Results
Appearance	QCU002	Oval soft gelatin capsule	Pass
Color		Dark Red	Pass
Cannabinoids		LOQ (ppm)	Wt. (%)
CBD		20	4.379
CBD-A		20	< LOQ
Δ 9-THC		5	< LOQ
THC-A		5	< LOQ
CBN		5	< LOQ
CBN-A		5	< LOQ
CBG	QCU001	5	0.067
CBC	(UHPLC-DAD)	5	< LOQ
CBC-A		5	< LOQ
Δ 8-THC		5	< LOQ
CBDV		5	< LOQ
CBDV-A		5	< LOQ
THCV		5	< LOQ
Potency – Total CBD		90 – 110% of Labelled Claim for CBD	26.8 mg CBD/softgel 107% of Labelled Claim
Total THC		0.0%	0.0%
Identity – CBD		Retention Time \pm 0.05min of Standard	-0.02 min
Curcumin Content	HPLC-DAD	80 – 120% of Labelled Claim for Curcumin	8 mg Curcumin/softgel 82% of Labelled Claim
Terpenes²	GC/FID & LC/MS	Refer to Oil Specification	Refer to Oil Specification
Pesticides²	LC/MS & GC/MS	Refer to Oil Specification	Refer to Oil Specification
Residual Solvents²	USP <467>	Refer to Oil Specification	Refer to Oil Specification
Elemental Impurities:²	USP <2232>	Refer to Oil Specification	Refer to Oil Specification
Microbial Limits:²	USP<2032>	Refer to Oil Specification	Refer to Oil Specification

Notes: ¹according to Folium Biosciences internal analytical methods, US Pharmacopeia or 3rd party contract laboratory method. ²Testing performed on bulk oil. ND=Not Detected, LOQ=Limit of Quantification, LOD=Limit of Detection

PLEASE NOTE: Curcumin is naturally bright yellow in color and tends to stain anything it comes into contact with. Any discoloration of the packaging, container or skin that the curcumin product touches is natural and expected. The yellow coloration is not a reflection of the product quality or indicative of any defect.

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

Phone: 719-574-2159

COPY

CERTIFICATE OF ANALYSIS

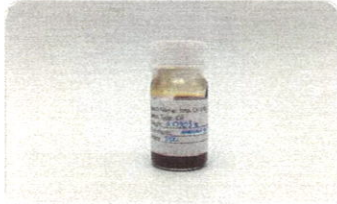
ISO/IEC 17025:2017 ACCREDITATION #103104



Order #: 46380
 Order Name: Imperial Oil
 019_932 A
 Batch#: Imperial Oil 019_932 A
 Received: 01/16/2020
 Completed: 01/20/2020



Sample



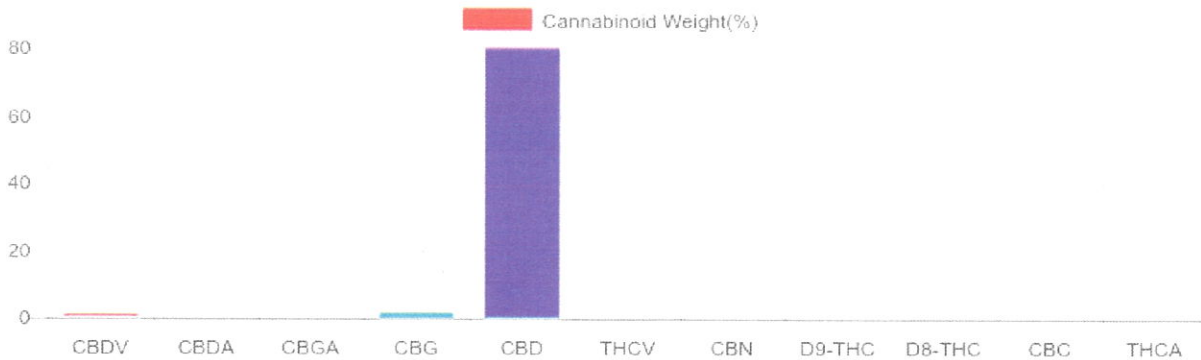
N/D
D9-THC

79.708%
Total CBD

Cannabinoids Test

SHIMADZU INTEGRATED UPLC-PDA
 GSL SOP 400 PREPARED: 01/16/2020 17:28:57 UPLOADED: 01/17/2020 16:17:16

Cannabinoids	LOQ	weight(%)	mg/g
D9-THC	10 PPM	N/D	N/D
THCA	10 PPM	N/D	N/D
CBD	10 PPM	79.658%	796.582
CBDA	20 PPM	0.057%	0.570
CBDV	20 PPM	0.431%	4.314
CBC	10 PPM	N/D	N/D
CBN	10 PPM	0.009%	0.086
CBG	10 PPM	1.404%	14.040
CBGA	20 PPM	N/D	N/D
D8-THC	10 PPM	N/D	N/D
THCV	10 PPM	N/D	N/D
TOTAL D9-THC		N/D	N/D
TOTAL CBD*		79.708%	797.082
TOTAL CANNABINOIDS		81.559%	815.592



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

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 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.

Released as:
 CON020-932-K
 JMB 31Jan2020

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ISO/IEC 17025:2017 ACCREDITATION #103104



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Order Name: Imperial Oil
 019_932 A
Batch#: Imperial Oil 019_932 A
Received: 01/16/2020
Completed: 01/20/2020



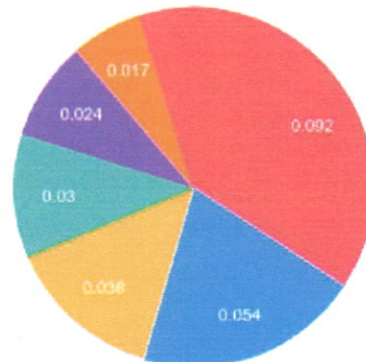
TERPENES: TOTAL (0.268%)

Headspace GCMS - Shimadzu GCMS QP2020 with HS20

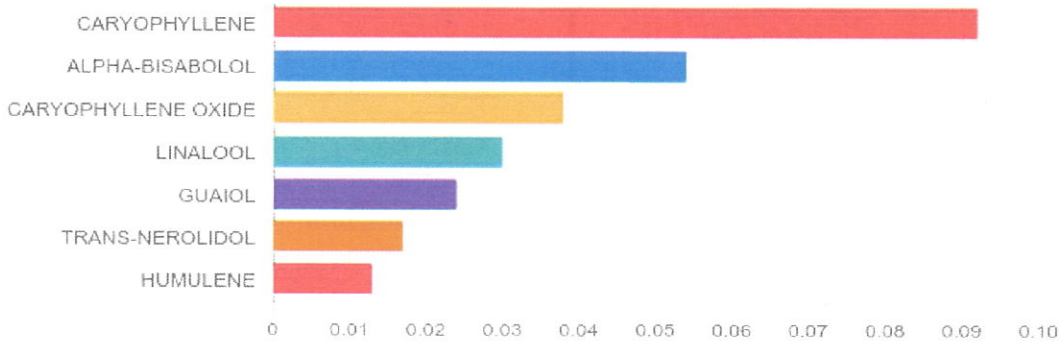
GSL SOP 404
Prepared: 01/16/2020 18:03:06
Uploaded: 01/17/2020 09:24:13

Terpene	Results (%)	LOQ (%)	LOD (%)
ALPHA-BISABOOL	0.054%	0.0067%	0.0063%
CARYOPHYLLENE	0.092%	0.0067%	0.0063%
CARYOPHYLLENE OXIDE	0.038%	0.0067%	0.0063%
GUAIOL	0.024%	0.0067%	0.0063%
HUMULENE	0.013%	0.0067%	0.0063%
LINALOOL	0.030%	0.0067%	0.0063%
TRANS-NEROLIDOL	0.017%	0.0067%	0.0063%

Terpenes Breakdown



Top Terpenes Results:



Tested for but not present:

ALPHA-PINENE, CAMPHENE, BETA-MYRCENE, BETA-PINENE, 3-CARENE, ALPHA-TERPINENE, TRANS-BETA-OCIMENE, LIMONENE, P-CYMENE, CIS-BETA-OCIMENE, GAMMA-TERPINENE, TERPINOLENE, ISOPULEGOL, GERANIOL, CIS-NEROLIDOL

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 1-833 TEST CBD



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 CON020-932-K
 JMS 31 Jan 2020

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Order #: 46380
Order Name: Imperial Oil
 019_932 A
Batch#: Imperial Oil 019_932 A
Received: 01/16/2020
Completed: 01/20/2020



RESIDUAL SOLVENTS:

Headspace GCMS - Shimadzu GCMS QP2020 with HS20

GSL SOP 405
Prepared: 01/16/2020 18:04:06
Uploaded: 01/17/2020 09:11:59

Residual Solvent	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)
ACETONE	5,000	B/LOQ	140	20
ACETONITRILE	410	N/D	25	1
BENZENE	1	N/D	1	0.5
BUTANE	5,000	N/D	50	10
CHLOROFORM	1	N/D	1	0.5
DICHLOROETHANE	1	N/D	1	0.5
DICHLOROMETHANE	1	N/D	1	0.5
ETHANOL	5,000	166	140	20
ETHYL ACETATE	5,000	N/D	140	20
ETHYL ETHER	5,000	N/D	140	20
ISOPROPYL ALCOHOL	5,000	N/D	140	20
METHANOL	3,000	N/D	100	20
N-HEPTANE	5,000	B/LOQ	140	20
N-HEXANE	290	N/D	18	10
PENTANE	5,000	N/D	140	20
PROPANE	5,000	N/D	20	1
TOLUENE	890	N/D	53	1
TRICHLOROETHENE	1	N/D	0	0
XYLENES	2,170	N/D	130	20

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 JMS 31 Jan 2020

CERTIFICATE OF ANALYSIS

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Order #: 46380
Order Name: Imperial Oil
019_932 A
Batch#: Imperial Oil 019_932 A
Received: 01/16/2020
Completed: 01/20/2020



Heavy Metals Analysis:

ICP-MS - Shimadzu ICPMS-2030
GSL SOP 403

Uploaded: 01/17/2020 21:19:55

Metal	Action Level (ppb)	Result (ppb)
ARSENIC (AS)	200	B/LOQ
CADMIUM (CD)	200	B/LOQ
MERCURY (HG)	100	B/LOQ
LEAD (PB)	500	B/LOQ

Lower Limit of Quantitation (LOQ) is 75 ppb

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CON020-932-K
JMS SWAN2020

CERTIFICATE OF ANALYSIS

ISO/IEC 17025:2017 ACCREDITATION #103104



Order #: 46380
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 019_932 A
 Batch#: Imperial Oil 019_932 A
 Received: 01/16/2020
 Completed: 01/20/2020



PESTICIDE ANALYSIS:

GSL SOP 401

PREPARED: 01/16/2020 17:30:47

UPLOADED: 01/20/2020 10:49:59

GCMS-MS - Shimadzu GCMS-TQ8040

Pesticide	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)	Pesticide	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)
FIPRONIL	0.100	N/D	0.003	0.001	FLUDIOXONIL	0.100	N/D	0.003	0.001

LCMS-MS - Shimadzu LCMS-8060

Pesticide	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)	Pesticide	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)
ABAMECTIN B1A	0.100	N/D	0.005	0.001	IMIDACLOPRID	5.000	N/D	0.005	0.001
ACEPHATE	0.100	N/D	0.001	0.001	KRESOXIM-METHYL	0.100	N/D	0.010	0.005
ACEQUINOCYL	0.100	N/D	0.001	0.001	MALATHION	0.500	N/D	0.005	0.001
ACETAMIPRID	0.100	N/D	0.005	0.001	METALAXYL	2.000	N/D	0.001	0.001
ALDICARB	0.100	N/D	0.005	0.001	METHIOCARB	0.100	N/D	0.005	0.001
AZOXYSTROBIN	0.100	N/D	0.001	0.001	METHOMYL	1.000	N/D	0.001	0.001
BIFENAZATE	0.100	N/D	0.005	0.001	MEVINPHOS	0.100	N/D	0.001	0.001
BIFENTHRIN	3.000	N/D	0.005	0.001	MYCLOBUTANIL	0.100	N/D	0.005	0.001
BOSCALID	0.100	N/D	0.005	0.001	NALED	0.100	N/D	0.005	0.001
CARBARYL	0.500	N/D	0.003	0.001	OXAMYL	0.500	N/D	0.001	0.001
CARBOFURAN	0.100	N/D	0.001	0.001	PACLOBUTRAZOL	0.100	N/D	0.005	0.001
CHLORANTRANILIPROLE	10.000	N/D	0.005	0.005	PERMETHRINS	0.500	N/D	0.005	0.001
CHLORPYRIFOS	0.100	N/D	0.001	0.001	PHOSMET	0.100	N/D	0.005	0.001
CLOFENTEZINE	0.100	N/D	0.001	0.001	PIPERONYL				
DAMINOZIDE	0.100	N/D	0.005	0.001	BUTOXIDE	3.000	N/D	0.001	0.001
DIAZANON	0.100	N/D	0.001	0.001	PRALLETHRIN	0.100	N/D	0.005	0.005
DICHLORVOS	0.100	N/D	0.005	0.001	PROPICONAZOLE	0.100	N/D	0.010	0.005
DIMETHOATE	0.100	N/D	0.001	0.001	PROPOXUR	0.100	N/D	0.001	0.001
DIMETHOMORPH	2.000	N/D	0.005	0.001	PYRETHRINS				
ETHOPROPHOS	0.100	N/D	0.001	0.001	(PYRETHRIN I)	0.500	N/D	0.005	0.005
ETOFENPROX	0.100	N/D	0.001	0.001	PYRIDABEN	0.100	N/D	0.005	0.001
ETOXAZOLE	0.100	N/D	0.010	0.005	SPINETORAM	0.100	N/D	0.001	0.001
FENHEXAMID	0.100	N/D	0.005	0.001	SPINOSAD	0.100	N/D	0.001	0.001
FENOXYCARB	0.100	N/D	0.005	0.001	SPIROMESIFEN	0.100	N/D	0.005	0.001
FENPYROXIMATE	0.100	0.060	0.001	0.001	SPIROTETRAMAT	0.100	N/D	0.001	0.001
FLONICAMID	0.100	N/D	0.025	0.010	SPIROXAMINE	0.100	N/D	0.001	0.001
HEXYTHIAZOX	0.100	N/D	0.005	0.001	TEBUCONAZOLE	0.100	N/D	0.005	0.001
IMAZALIL	0.100	N/D	0.005	0.001	THIACLOPRID	0.100	N/D	0.001	0.001
					THIAMETHOXAM	5.000	N/D	0.001	0.001
					TRIFLOXYSTROBIN	0.100	N/D	0.001	0.001

N/D = Not Detected, A/LOQ = Above LOQ Level, B/LOQ = Below LOQ Level, B/LOD = Below LOD Level

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 JMS 3/20/2020



1755 Victory Blvd. Glendale, CA 91201
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www.accubclabs.com

To:

COA No.:	M-JO081020-01
COA Date:	08/17/20
Sample Rec'd Date:	08/10/20
ISO/IEC 17025:2017 Standard	Page 1 of 1

MICROBIOLOGICAL CERTIFICATE OF ANALYSIS

Sample Description: *Softgel Capsules 25mg (Curcumin)*
Sample Batch/Lot No.: 2021901
ACCU Laboratory Ref.: 0787519
Purchase Order No.: N/A
Test Method: USP
Notes: N/A

Analysis:

Results:

Total Plate Count:	<10 CFU / g
Yeast & Mold Count:	<10 CFU / g
Bile-Tolerant g- Bacteria (coliforms):	Negative
<i>Escherichia coli</i> :	Negative
<i>Salmonella</i> :	Negative

Approved By: _____

Vano Baghdasarian, Laboratory Director

The results of this test relate only to the samples tested. This test report shall not be reproduced except in full, without written approval of the lab. ACCU Labs shall have no liability to anyone with respect to any interpretations or uses of the COA report, decisions made, or actions taken as a result of or based on the data reported.
Abbreviations: g -: gram negative; g +B: gram positive Bacilli; g +C: gram positive Cocci; TPC: Total Plate Count; TNTC: Too Numerous to Count

Document Information

File Name and Version: LF-510-01 Certificate of Analysis - V. Micro v.03 | Effective Date: 05/01/20 | Status: Approved by Vano Baghdasarian