

Order #: 39580 Order Name: Koi Naturals Peppermint 2000 mg

Batch#: 9305NPM2K Received: 11/06/2019 Completed: 11/11/2019



Koi CBD LLC 14631 Best Ave Norwalk California, 90650 (877) 774-4779 morgan@koicbd.com



#### Sample



N/D D9-THC 6.988% Total CBD

2,001.8 mg Cannabinoids per unit

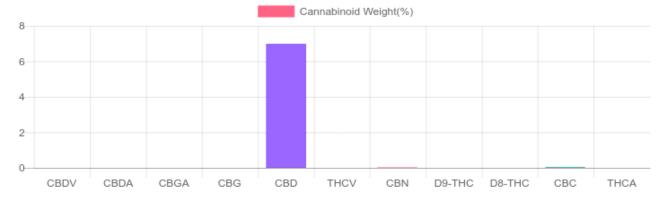
1,981.0 mg CBD per unit

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

#### Cannabinoids Test

SHIMADZU INTEGRATED UPLC-PDA

GSL SOP 400	PREPARED: 11/	PREPARED: 11/07/2019 12:01:03		08/2019 08:34:30
Cannabinoids	LOQ	weight(%)	mg/g	mg/unit
D9-THC	10 PPM	N/D	N/D	N/D
THCA	10 PPM	N/D	N/D	N/D
CBD	10 PPM	6.988%	69.875	1,981.0
CBDA	20 PPM	N/D	N/D	N/D
CBDV	20 PPM	N/D	N/D	N/D
CBC	10 PPM	0.049%	0.494	14.0
CBN	10 PPM	0.024%	0.240	6.8
CBG	10 PPM	N/D	N/D	N/D
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		N/D	N/D	N/D
TOTAL CBD*		6.988%	69.875	1,981.0
TOTAL CANNABINOIDS		7.061%	70.609	2,001.8



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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**TERPENES: TOTAL (0.068%)** 

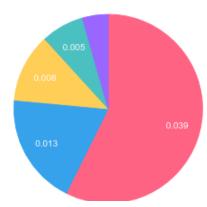
Headspace GCMS - Shimadzu GCMS QP2020 with HS20

Terpene	Results (%)	LOQ (%)	LOD (%)
ALPHA-PINENE	B/LOQ	0.0067%	0.0063%
BETA-PINENE	B/LOQ	0.0067%	0.0063%
CARYOPHYLLENE	0.008%	0.0067%	0.0063%
EUCALYPTOL	0.039%	0.0067%	0.0063%
LIMONENE	0.013%	0.0067%	0.0063%

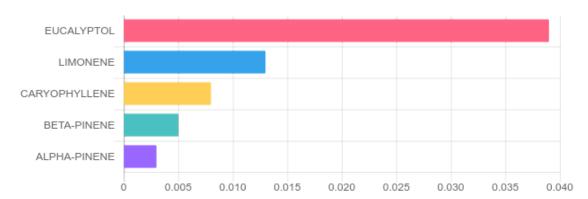
Prepared: 11/07/2019 12:49:32 Uploaded: 11/08/2019 08:30:23

GSL SOP 404

**Terpenes Breakdown** 



### **Top Terpenes Results:**



#### Tested for but not present:

CAMPHENE, BETA-MYRCENE, 3-CARENE, ALPHA-TERPINENE, TRANS-BETA-OCIMENE, P-CYMENE, CIS-BETA-OCIMENE, GAMMA.-TERPINENE, TERPINOLENE, LINALOOL, ISOPULEGOL, GERANIOL, HUMULENE, CIS-NEROLIDOL, TRANS-NEROLIDOL, GUAIOL, CARYOPHYLLENE OXIDE, ALPHA-BISABOLOL

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#### **PESTICIDE ANALYSIS:**

GSL SOP 401 PREPARED: 11/07/2019 13:01:03 UPLOADED: 11/08/2019 13:52:57

GCMS-MS - Shimadzu GCMS-TQ8040

Pesticide	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)	Pesticide
CAPTAN	0.700	N/D	0.003	0.001	CYPERMET
CHLORDANE	0.100	N/D	0.003	0.001	FIPRONIL
CHLORFENAPYR	0.100	N/D	0.003	0.001	FLUDIOXON
COUMAPHOS	0.100	N/D	0.003	0.001	PARATHION:
CYFLUTHRIN	2.000	N/D	0.003	0.001	PENTACHLO

Pesticide	Action Level Results LOQ LO					
resticide	(ppm)	(ppm)	(ppm)	(ppm)		
CYPERMETHRIN	1.000	N/D	0.003	0.001		
FIPRONIL	0.100	N/D	0.003	0.001		
FLUDIOXONIL	0.100	N/D	0.003	0.001		
PARATHION-METHYL	0.100	N/D	0.003	0.001		
PENTACHLORONITROBENZEN	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	3.000	N/D	0.001	0.001
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	0.500	N/D	0.005	0.005
ETHOPROPHOS	0.100	N/D	0.001	0.001	(PYRETHRIN I)	0.500	IN/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	N/D	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

 $\mbox{N/D}$  = Not Detected, A/LOQ = Above LOQ Level, B/LOQ = Below LOQ Level, B/LOD = Below LOD Level

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#### **RESIDUAL SOLVENTS:**

Headspace GCMS - Shimadzu GCMS QP2020 with HS20

GSL SOP 405

Prepared: 11/08/2019 18:15:18 Uploaded: 11/10/2019 13:21:31

Residual Solvent	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)
ACETONE	5,000	N/D	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	N/D	140	20
ETHYL ACETATE	5,000	N/D	140	20
THYL ETHER	5,000	N/D	140	20
SOPROPYL ALCOHOL	5,000	N/D	140	20
METHANOL	3,000	N/D	100	20
N-HEPTANE	5,000	N/D	140	20
N-HEXANE	290	N/D	18	10
PENTANE	5,000	N/D	140	20
PROPANE	5,000	N/D	20	1
<b>FOLUENE</b>	890	N/D	53	1
RICHLOROETHENE	1	N/D	0	0
YLENES	2,170	N/D	130	20





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#### **Microbial Analysis:**

Microbial Analysis GSL SOP 406

Uploaded: 11/09/2019 15:40:21

PCR - Agilent AriaMX <b>Test</b>	Test Method Used	Device Used	LOD	Allowable Criteria	Actual Result	Pass/Fail
STEC E.COLI*	USP 61/62†	ARIAMX PCR	2 COPIES OF DNA	PRESENCE / ABSENT	BELOW LOD	PASS
SALMONELLA*	USP 61/62†	ARIAMX PCR	5 COPIES OF DNA	PRESENCE / ABSENT	BELOW LOD	PASS
ASPERGILLUS	USP 61/62†	ARIAMX PCR	ASP_LOD***	PRESENCE / ABSENT	BELOW LOD	PASS
YEAST AND MOLD	USP 61/62†	ARIAMX PCR	363.05518 CFU/G**	1,000	BELOW THRESHOLD	PASS
TOTAL AEROBIC BACTERIA	USP 61/62†	ARIAMX PCR	0.25316 CFU/G**	10,000	BELOW THRESHOLD	PASS
COLIFORM	USP 61/62†	ARIAMX PCR	3.41539 CFU/G**	100	BELOW THRESHOLD	PASS
ENTEROBACTERIACEAE	USP 61/62†	ARIAMX PCR	0.32951 CFU/G**	100	BELOW THRESHOLD	PASS

<sup>†</sup> USP 61 (enumeration of bacteria TAC, TYM, and ENT/Coliform), USP 62 (identifying specific species E.coli Aspergillus etc) \* STEC and Salmonella run as Multiplex

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<sup>\*\*</sup> CFU/g Calculation based on Select Category Type Gummy MIP/Extract Flower matrix

<sup>\*\*\*</sup> Flavus = 2 Copies of DNA / Furnigatis = 2 Copies of DNA Niger = 20 Copies of DNA / Terrus = 10 copies of DNA



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#### **Mycotoxin Analysis:**

LC-MS - Shimadzu LCMS-8060 GSL SOP 401

Uploaded: 11/08/2019 13:52:57

Analyte	Action Lvl (ppb)	Results (ppb)
AFLATOXIN B1	20	N/D
AFLATOXIN B2	20	N/D
AFLATOXIN G1	20	N/D
AFLATOXIN G2	20	N/D
OCHRATOXIN A	20	N/D

LOQ is 4ppb, LOD is 1ppb

### **Heavy Metals Analysis:**

ICP-MS - Shimadzu ICPMS-2030

GSL SOP 403

**Uploaded:** 11/11/2019 21:59:02

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

#### Water Activity:

HD-3A Water Activity Meter - GSL SOP 407

Uploaded: 11/07/2019 15:44:36

Water

0.51

### Filth and Foreign Materials Analysis:

Microscope - Amscope Simul-Focal Trinocular Stereo Zoom Microscope - GSL SOP 409

Uploaded: 11/07/2019 15:34:30

Pass: No Foreign Materials Detected

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