



K N D L A B S

**Certificate of Analysis Documents
KND Labs CBD Isolate**

Product: KND23-397

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The Industry Leader in Quality, Certifications and Compliance at Scale.

KND Labs CBD Isolate

Sample ID: SA-231211-31639
 Batch: KND23-397
 Type: In-Process Material
 Matrix: Concentrate - Isolate
 Unit Mass (g):

Received: 12/12/2023
 Completed: 12/22/2023

Client
 KND Labs, LLC.
 5801 W 6th Ave., Unit A
 Lakewood, CO 80214
 USA
 Lic. #: 0031X8



Summary

Test	Date Tested	Status
Cannabinoids	12/22/2023	Tested
Heavy Metals	12/20/2023	Tested
Mycotoxins	12/18/2023	Tested
Pesticides	12/18/2023	Tested
Residual Solvents	12/19/2023	Tested
Terpenes	12/18/2023	Tested

ND Total Δ9-THC	98.1 % CBD	99.7 % Total Cannabinoids	Not Tested Moisture Content	Not Tested Foreign Matter	Yes Internal Standard Normalization
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Cannabinoids by HPLC-PDA and/or GC-MS/MS

Analyte	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)
CBC	0.0095	0.0284	ND	ND
CBCA	0.0181	0.0543	ND	ND
CBCV	0.006	0.018	ND	ND
CBD	0.0081	0.0242	98.1	981
CBDA	0.0043	0.013	ND	ND
CBDV	0.0061	0.0182	1.63	16.3
CBDVA	0.0021	0.0063	ND	ND
CBG	0.0057	0.0172	ND	ND
CBGA	0.0049	0.0147	ND	ND
CBL	0.0112	0.0335	ND	ND
CBLA	0.0124	0.0371	ND	ND
CBN	0.0056	0.0169	ND	ND
CBNA	0.006	0.0181	ND	ND
CBT	0.018	0.054	ND	ND
Δ8-THC	0.0104	0.0312	ND	ND
Δ9-THC	0.0076	0.0227	ND	ND
Δ9-THCA	0.0084	0.0251	ND	ND
Δ9-THCV	0.0069	0.0206	ND	ND
Δ9-THCVA	0.0062	0.0186	ND	ND
Total Δ9-THC			ND	ND
Total			99.7	997

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; RL = Reporting Limit; Δ = Delta; Total Δ9-THC = Δ9-THCA * 0.877 + Δ9-THC; Total CBD = CBDA * 0.877 + CBD;



Generated By: Ryan Bellone
 CCO

Date: 12/22/2023



Tested By: Nicholas Howard
 Scientist

Date: 12/22/2023



ISO/IEC 17025:2017 Accredited
 Accreditation #108651



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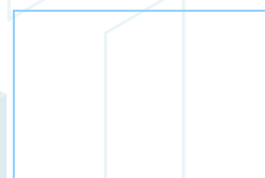
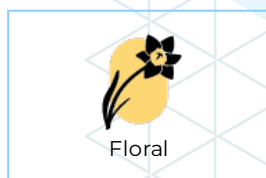
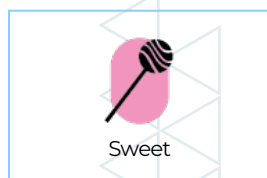
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Terpenes by GC-MS

Analyte	LOD (%)	LOQ (%)	Result (%)	Analyte	LOD (%)	LOQ (%)	Result (%)
α -Bisabolol	0.002	0.01	0.0123	Limonene	0.002	0.01	ND
(+)-Borneol	0.002	0.01	ND	Linalool	0.002	0.01	ND
Camphene	0.002	0.01	ND	β -myrcene	0.002	0.01	ND
Camphor	0.004	0.02	ND	Nerol	0.002	0.01	ND
3-Carene	0.002	0.01	ND	cis-Nerolidol	0.002	0.01	ND
β -Caryophyllene	0.002	0.01	ND	trans-Nerolidol	0.002	0.01	ND
Caryophyllene Oxide	0.002	0.01	ND	Ocimene	0.002	0.01	ND
α -Cedrene	0.002	0.01	ND	α -Phellandrene	0.002	0.01	ND
Cedrol	0.002	0.01	ND	α -Pinene	0.002	0.01	ND
Eucalyptol	0.002	0.01	ND	β -Pinene	0.002	0.01	ND
Fenchone	0.004	0.02	ND	Pulegone	0.002	0.01	ND
Fenchyl Alcohol	0.002	0.01	ND	Sabinene	0.002	0.01	ND
Geraniol	0.002	0.01	ND	Sabinene Hydrate	0.002	0.01	ND
Geranyl Acetate	0.002	0.01	ND	α -Terpinene	0.002	0.01	ND
Guaiol	0.002	0.01	ND	γ -Terpinene	0.002	0.01	ND
Hexahydrothymol	0.002	0.01	ND	α -Terpineol	0.001	0.005	ND
α -Humulene	0.002	0.01	ND	γ -Terpineol	0.001	0.005	ND
Isoborneol	0.002	0.01	ND	Terpinolene	0.002	0.01	ND
Isopulegol	0.002	0.01	ND	Valencene	0.002	0.01	ND
				Total Terpenes (%)			0.0123

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; P = Pass; F = Fail; RL = Reporting Limit




Generated By: Ryan Bellone
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Date: 12/22/2023



Tested By: Jasper van Heemst
 Principal Scientist

Date: 12/18/2023



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Heavy Metals by ICP-MS

Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)
Arsenic	2	20	ND
Cadmium	1	20	ND
Lead	2	20	<LOQ
Mercury	12	50	ND

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Generated By: Ryan Bellone
 CCO

Date: 12/22/2023



Tested By: Chris Farman
 Scientist

Date: 12/20/2023



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Pesticides by LC-MS/MS

Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)
Abamectin	30	100	ND	Hexythiazox	30	100	ND
Acephate	30	100	ND	Imazalil	30	100	ND
Acequinocyl	30	100	ND	Imidacloprid	30	100	ND
Acetamiprid	30	100	ND	Kresoxim methyl	30	100	ND
Aldicarb	30	100	ND	Malathion	30	100	ND
Azoxystrobin	30	100	ND	Metaxyl	30	100	ND
Bifenazate	30	100	ND	Methiocarb	30	100	ND
Bifenthrin	30	100	ND	Methomyl	30	100	ND
Boscalid	30	100	ND	Mevinphos	30	100	ND
Carbaryl	30	100	ND	Myclobutanil	30	100	ND
Carbofuran	30	100	ND	Naled	30	100	ND
Chloranthraniliprole	30	100	ND	Oxamyl	30	100	ND
Chlorfenapyr	30	100	ND	Paclobutrazol	30	100	ND
Chlorpyrifos	30	100	ND	Permethrin	30	100	ND
Clofentezine	30	100	ND	Phosmet	30	100	ND
Coumaphos	30	100	ND	Piperonyl Butoxide	30	100	ND
Cypermethrin	30	100	ND	Propiconazole	30	100	ND
Daminozide	30	100	ND	Propoxur	30	100	ND
Diazinon	30	100	ND	Pyrethrins	30	100	ND
Dichlorvos	30	100	ND	Pyridaben	30	100	ND
Dimethoate	30	100	ND	Spinetoram	30	100	ND
Dimethomorph	30	100	ND	Spinosad	30	100	ND
Ethoprophos	30	100	ND	Spiromesifen	30	100	ND
Etofenprox	30	100	ND	Spirotetramat	30	100	ND
Etoazole	30	100	ND	Spiroxamine	30	100	ND
Fenhexamid	30	100	ND	Tebuconazole	30	100	ND
Fenoxycarb	30	100	ND	Thiacloprid	30	100	ND
Fenpyroximate	30	100	ND	Thiamethoxam	30	100	ND
Fipronil	30	100	ND	Trifloxystrobin	30	100	ND
Flonicamid	30	100	ND				
Fludioxonil	30	100	ND				

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Date: 12/22/2023



Tested By: Jasper van Heemst
 Principal Scientist

Date: 12/18/2023



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Mycotoxins by LC-MS/MS

Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)
B1	1	5	ND
B2	1	5	ND
G1	1	5	ND
G2	1	5	ND
Ochratoxin A	1	5	ND

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; P = Pass; F = Fail; RL = Reporting Limit



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Date: 12/22/2023



Tested By: Jasper van Heemst
 Principal Scientist

Date: 12/18/2023



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Residual Solvents by HS-GC-MS

Analyte	LOD (ppm)	LOQ (ppm)	Result (ppm)	Analyte	LOD (ppm)	LOQ (ppm)	Result (ppm)
Acetone	167	500	ND	Ethylene Oxide	0.5	1	ND
Acetonitrile	14	41	ND	Heptane	167	500	<RL
Benzene	0.5	1	ND	n-Hexane	10	29	ND
Butane	167	500	ND	Isobutane	167	500	ND
1-Butanol	167	500	ND	Isopropyl Acetate	167	500	ND
2-Butanol	167	500	ND	Isopropyl Alcohol	167	500	ND
2-Butanone	167	500	ND	Isopropylbenzene	167	500	ND
Chloroform	2	6	ND	Methanol	100	300	ND
Cyclohexane	129	388	ND	2-Methylbutane	10	29	ND
1,2-Dichloroethane	0.5	1	ND	Methylene Chloride	20	60	ND
1,2-Dimethoxyethane	4	10	ND	2-Methylpentane	10	29	ND
Dimethyl Sulfoxide	167	500	ND	3-Methylpentane	10	29	ND
N,N-Dimethylacetamide	37	109	ND	n-Pentane	167	500	ND
2,2-Dimethylbutane	10	29	ND	1-Pentanol	167	500	ND
2,3-Dimethylbutane	10	29	ND	n-Propane	167	500	ND
N,N-Dimethylformamide	30	88	ND	1-Propanol	167	500	ND
2,2-Dimethylpropane	167	500	ND	Pyridine	7	20	ND
1,4-Dioxane	13	38	ND	Tetrahydrofuran	24	72	ND
Ethanol	167	500	ND	Toluene	30	89	ND
2-Ethoxyethanol	6	16	ND	Trichloroethylene	3	8	ND
Ethyl Acetate	167	500	ND	Xylenes (o-, m-, and p-)	73	217	ND
Ethyl Ether	167	500	ND				
Ethylbenzene	3	7	ND				

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Generated By: Ryan Bellone
 CCO

Date: 12/22/2023



Tested By: Scott Caudill
 Laboratory Manager

Date: 12/19/2023



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Reporting Limit Appendix

Heavy Metals - Colorado CDPHE

Analyte	Limit (ppb)	Analyte	Limit (ppb)
Arsenic	1500	Lead	500
Cadmium	500	Mercury	1500

Residual Solvents - USP 467

Analyte	Limit (ppm)	Analyte	Limit (ppm)
Acetone	5000	Ethylene Oxide	1
Acetonitrile	410	Heptane	5000
Benzene	2	n-Hexane	290
Butane	5000	Isobutane	5000
1-Butanol	5000	Isopropyl Acetate	5000
2-Butanol	5000	Isopropyl Alcohol	5000
2-Butanone	5000	Isopropylbenzene	5000
Chloroform	60	Methanol	3000
Cyclohexane	3880	2-Methylbutane	290
1,2-Dichloroethane	5	Methylene Chloride	600
1,2-Dimethoxyethane	100	2-Methylpentane	290
Dimethyl Sulfoxide	5000	3-Methylpentane	290
N,N-Dimethylacetamide	1090	n-Pentane	5000
2,2-Dimethylbutane	290	1-Pentanol	5000
2,3-Dimethylbutane	290	n-Propane	5000
N,N-Dimethylformamide	880	1-Propanol	5000
2,2-Dimethylpropane	5000	Pyridine	200
1,4-Dioxane	380	Tetrahydrofuran	720
Ethanol	5000	Toluene	890
2-Ethoxyethanol	160	Trichloroethylene	80
Ethyl Acetate	5000	Xylenes (o-, m-, and p-)	2170
Ethyl Ether	5000		
Ethylbenzene	70		

Pesticides - CA DCC

Analyte	Limit (ppb)	Analyte	Limit (ppb)
Carbaryl	500	Myclobutanil	9000
Carbofuran	30	Naled	500
Chloranthraniliprole	40000	Oxamyl	200
Chlorfenapyr	30	Paclobutrazol	30
Chlorpyrifos	30	Permethrin	20000
Clofentezine	500	Phosmet	200
Coumaphos	30	Piperonyl Butoxide	8000
Cypermethrin	1000	Propiconazole	20000
Daminozide	30	Propoxur	30
Diazinon	200	Pyrethrins	1000
Dichlorvos	30	Pyridaben	3000
Dimethoate	30	Spinetoram	3000
Dimethomorph	20000	Spinosad	3000
Ethoprophos	30	Spiromesifen	12000
Etofenprox	30	Spirotetramat	13000
Etoxazole	1500	Spiroxamine	30
Fenhexamid	10000	Tebuconazole	2000
Fenoxycarb	30	Thiacloprid	30
Fenpyroximate	2000	Thiamethoxam	4500
Fipronil	30	Trifloxystrobin	30000
Fonicamid	2000		
Fludioxonil	30000		

Mycotoxins - Colorado CDPHE

Analyte	Limit (ppm)	Analyte	Limit (ppm)
B1	5	B2	5
G1	5	G2	5
Ochratoxin A	5		

Pesticides - CA DCC

Analyte	Limit (ppb)	Analyte	Limit (ppb)
Abamectin	300	Hexythiazox	2000
Acephate	5000	Imazalil	30
Acequinocyl	4000	Imidacloprid	3000
Acetamiprid	5000	Kresoxim methyl	1000
Aldicarb	30	Malathion	5000
Azoxystrobin	40000	Metaxyl	15000
Bifenazate	5000	Methiocarb	30
Bifenthrin	500	Methomyl	100
Boscalid	10000	Mevinphos	30





Technical Specifications

Product Name: CRYSTALLINE CANNABIDIOL ISOLATE

≥ 98% CBD | ≤ 0.2% THC

The Industry Leader in Certifications & Compliance



1. Product Data

DESCRIPTION

KND Crystalline Cannabidiol (CBD) Isolate goes through a primary extraction from industrial hemp using approved hydrocarbon solvents, denatured ethyl alcohol, or CO₂. It is then refined into a high-potency isolate. The Industrial Hemp Biomass is sourced from US Growers who have registered with their state's respective Department of Agriculture.

INTENDED USE

Industry specific per customer. Unfinished ingredient requiring further processing.

COUNTRY OF ORIGIN

Made in USA from domestic ingredients

INCOMPATIBILITIES

No known incompatibilities

STANDARD PACKAGING

HDPE Food Grade Plastic - Bucket, Canister, Drum; Aluminum Screw-top Bottle, Metal Tin, Steel Drum

SHELF LIFE

24 months after packaging

STORAGE & HANDLING

Storage Container : Store in original, tightly closed containers under dry conditions at ambient temperature. Do not freeze. Limit exposure to light.

Temperature: Keep at temperatures between 10°C to 23°C.

Once cannabinoids are exposed to air, they may oxidize and darken in color. Cannabinoid powders are highly hygroscopic and may clump when exposed to humidity, causing a decrease in potency. It is recommended to add desiccants to the product after opening to mitigate moisture absorption.

ALLERGEN STATEMENT

Does not contain beef, buckwheat, celery, cereals with gluten, chicken, crustacean shellfish, egg, fish, lupin, mango, milk, molluscan shellfish, mustard, peach, peanut, pork, royal jelly, sesame, soy, tree nuts, tomato, or wheat.

FOOD AND DRUG ADMINISTRATION DISCLOSURE

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.

WARNING STATEMENT

Not recommended for children, pregnant, or nursing women. If taking medication, consult a physician before use. Keep out of the reach of children.

CALIFORNIA PROPOSITION 65

May contain exposures to delta-9- Tetrahydrocannabinol (Δ9 THC) which is known to the State of California to cause birth defects or other reproductive harm. KND Labs tests for Δ9 THC and though its presence may not be detected or may be minimal, a warning is required because limitations of exposure are not defined.

2. Specifications - General Information

APPEARANCE

White crystalline powder

FLAVOR

No significant flavor

ODOR

No significant odor

CONSISTENCY

Fine-coarse powdered crystal

SOLUBILITY

Oil

COMPOSITION

100% Hemp extract by weight

PLANT PARTS USED IN OIL

Stalk, stem, flower

Know your CBD Source. Buy Direct from the Manufacturer.



Technical Specifications

Product Name: CRYSTALLINE CANNABIDIOL ISOLATE

≥ 98% CBD | ≤ 0.2% THC

3. Composition/Ingredient Information

APPROVED TESTING LABS

The following third party labs have been approved to test KND products based on a track record of quality and regulatory compliance:

- Botanacor dba SC Labs
- DB Labs
- Eurofins

If the listed labs are not used for the finished product, KND recommends that the ingredient is tested at the desired non KND approved lab to calibrate the finished product results.

NOTE:

¹ Unfinished hemp products are only required to test for potency per 6 CCR 1010-21.7 (F) *Colorado Wholesale Food, Industrial Hemp, and Shellfish Regulations*. All other contaminants are not required for compliance testing. Additional testing may be arranged. Please contact a KND representative. For more information, visit <https://cdphe.colorado.gov/hemp-food>.

CANNABINOID CONTENT	%	METHOD(S)
CBD	≥ 98.0	HPLC applications LCMS LCUV
THC	≤ 0.2	
CBDA	Reportable	
CBDV	Reportable	
CBN	Reportable	
CBG	Reportable	

CANNABIDIOL INFORMATION	
INCI Name	Cannabidiol
CAS-No	13956-29-1
Molecular Weight (g/mol)	314.46
Chemical Formula	C ₂₁ H ₃₀ O ₂

OTHER	LIMIT	METHOD(S)
HEAVY METALS	See Note ¹	ICP-MS ; MS-MS
PESTICIDES	See Note ¹	GC applications; HPLC applications; LCMS applications
MICROBIOLOGICAL	See Note ¹	Microarray ; PCR ; qPCR ; Petrifilm ; VIDAS
RESIDUAL SOLVENTS	See Note ¹	GC applications

Know your CBD Source. Buy Direct from the Manufacturer.