

PharmLabs San Diego Certificate of Analysis



Sample **Sumo Gummy Birthday Cake**

Delta9 THC	0.27%	THCa	ND	Total THC (THC + THCa)	0.27%	Delta8 THC	2.15%
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Sample ID	SD240503-023 (94048)	Matrix	Edible (Other Cannabis Good)
Tested for	Fresh Farms E-Liquid LLC	Reported	May 10, 2024
Sampled	-	Received	May 03, 2024
Analyses executed	CANX, RES, MIBNIG, MTO, PES, HME, FVI, MWA, D9C	Unit Mass (g)	113.584
		Num. of Servings	25
		Serving Size (g)	4.54

Summary **D9C**: The total **Δ9-THC** content in this sample is 0.27%. For the most accurate **Δ9-THC** concentration, refer to the GC MS/MS section of this COA. This sample was tested using HPLC and GC MS/MS. HPLC analysis can yield inconsistent results for **Δ8-THC** and **Δ9-THC** due to isomer interference. GC MS/MS was employed to avoid this issue. Please note, if THCa is present, the **Δ9-THC** level measured by GC MS/MS might be higher due to decarboxylation.

D9C - D9 Confirmation Analysis

Analyzed May 10, 2024 | Instrument GC MS/MS | Method SOP-041 D9C
The expanded Uncertainty of the analysis is approximately ±7.806% at the 95% Confidence Level

Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g	Result mg/Serving	Result mg/Unit
Δ4(8)-iso-Tetrahydrocannabinol (Δ4(8)-iso-THC)	0.23	0.697	0.16	1.56	7.08	177.19
Δ9-Tetrahydrocannabinol (Δ9-THC)	0.387	1.174	0.27	2.73	12.39	310.08
Total Δ9-THC			0.27	2.73	12.39	310.08
Total Cannabinoids Analyzed	-	-	0.43	4.29	19.47	487.27

CANX - Cannabinoids Analysis

Analyzed May 09, 2024 | Instrument HPLC-VWD | Method SOP-001
The expanded Uncertainty of the Cannabinoid analysis is approximately ±7.806% at the 95% Confidence Level

Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g	Result mg/Serving	Result mg/Unit
11-Hydroxy-Δ8-Tetrahydrocannabinol (11-Hyd-Δ8-THCV)	0.013	0.041	ND	ND	ND	ND
Cannabidiol (CBDO)	0.002	0.007	ND	ND	ND	ND
Abnormal Cannabidiol (a-CBDO)	0.01	0.031	ND	ND	ND	ND
(+/-)-9B-hydroxy-Hexahydrocannabinol (9b-HHC)	0.012	0.036	ND	ND	ND	ND
11-Hydroxy-Δ8-Tetrahydrocannabinol (11-Hyd-Δ8-THC)	0.007	0.021	ND	ND	ND	ND
Cannabidiolic Acid (CBDA)	0.001	0.16	ND	ND	ND	ND
Cannabigerol Acid (CBGA)	0.001	0.16	ND	ND	ND	ND
Cannabigerol (CBG)	0.001	0.16	ND	ND	ND	ND
Cannabidiol (CBD)	0.001	0.16	0.02	0.22	1.00	24.99
1(S)-THD (s-THD)	0.013	0.041	ND	ND	ND	ND
1(R)-THD (r-THD)	0.025	0.075	ND	ND	ND	ND
Tetrahydrocannabinol (THCV)	0.001	0.16	0.01	0.07	0.32	7.95
Δ8-tetrahydrocannabinol (Δ8-THCV)	0.021	0.064	0.02	0.25	1.14	28.40
Cannabidiol (CBDH)	0.005	0.16	ND	ND	ND	ND
Tetrahydrocannabinol (Δ9-THCB)	0.013	0.038	ND	ND	ND	ND
Cannabinol (CBN)	0.001	0.16	0.01	0.10	0.45	11.36
Cannabidiophorol (CBDP)	0.015	0.047	ND	ND	ND	ND
exo-THC (exo-THC)	0.005	0.16	ND	ND	ND	ND
Tetrahydrocannabinol (Δ9-THC)	0.003	0.16	0.61	6.13	27.83	696.27
Δ8-tetrahydrocannabinol (Δ8-THC)	0.004	0.16	8.94	89.36	405.69	10142.36
(6aR,9S)-Δ10-Tetrahydrocannabinol ((6aR,9S)-Δ10)	0.015	0.16	ND	ND	ND	ND
Hexahydrocannabinol (S Isomer) (9s-HHC)	0.017	0.16	ND	ND	ND	ND
(6aR,9R)-Δ10-Tetrahydrocannabinol ((6aR,9R)-Δ10)	0.007	0.16	ND	ND	ND	ND
Hexahydrocannabinol (R Isomer) (9r-HHC)	0.016	0.16	ND	ND	ND	ND
Tetrahydrocannabinolic Acid (THCA)	0.001	0.16	ND	ND	ND	ND
Δ9-Tetrahydrocannabinol (Δ9-THCH)	0.024	0.071	ND	ND	ND	ND
Cannabinol Acetate (CBNO)	0.014	0.043	ND	ND	ND	ND
Δ9-Tetrahydrocannabinol (Δ9-THCP)	0.017	0.16	ND	ND	ND	ND
Δ8-Tetrahydrocannabinol (Δ8-THCP)	0.041	0.16	0.01	0.07	0.32	7.95
Cannabicitran (CBT)	0.005	0.16	0.01	0.13	0.59	14.77
Δ8-THC-O-acetate (Δ8-THCO)	0.076	0.16	ND	ND	ND	ND
9(S)-HHCP (s-HHCP)	0.031	0.094	ND	ND	ND	ND
Δ9-THC-O-acetate (Δ9-THCO)	0.066	0.16	ND	ND	ND	ND
9(R)-HHCP (r-HHCP)	0.026	0.079	ND	ND	ND	ND
9(S)-HHC-O-acetate (s-HHCO)	0.005	0.16	ND	ND	ND	ND
9(R)-HHC-O-acetate (r-HHCO)	0.008	0.025	ND	ND	ND	ND
3-octyl-Δ8-Tetrahydrocannabinol (Δ8-THC-C8)	0.067	0.204	ND	ND	ND	ND
Total THC (THCa * 0.877 + Δ9THC)			0.61	6.13	27.83	696.27
Total THC + Δ8THC + Δ10THC (THCa * 0.877 + Δ9THC + Δ8THC + Δ10THC)			9.55	95.49	433.54	10838.63
Total CBD (CBDA * 0.877 + CBD)			0.02	0.22	1.00	24.99
Total CBG (CBGa * 0.877 + CBG)			ND	ND	ND	ND
Total HHC (9r-HHC + 9s-HHC)			ND	ND	ND	ND
Total Cannabinoids Analyzed			9.63	96.33	437.36	10934.05



UJ Unidentified
ND Not Detected
N/A Not Applicable
NT Not Reported
LOD Limit of Detection
LOQ Limit of Quantification
<LOQ Detected
>ULOL Above upper limit of linearity
CFU/g Colony Forming Units per 1 gram
TNTC Too Numerous to Count



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Authorized Signature

Brandon Starr

Brandon Starr, Lab Manager
Fri, 10 May 2024 13:38:20 -0700

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HME - Heavy Metals Analysis

Analyzed May 07, 2024 | Instrument ICP/MSMS | Method SOP-005

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Arsenic (As)	0.0009	0.0027	ND	1.5
Cadmium (Cd)	0.0005	0.0015	ND	0.5
Mercury (Hg)	0.0058	0.0174	ND	3
Lead (Pb)	0.0006	0.0018	ND	0.5
Nickel (Ni)	6.0e-05	0.0002	ND	

MIBNIG - Microbial Analysis

Analyzed May 08, 2024 | Instrument Plating | Method SOP-007

Analyte	LOD	LOQ	Result CFU/g	Limit	Analyte	LOD	LOQ	Result CFU/g	Limit
Shiga toxin-producing Escherichia Coli			Negative	ND per 1 gram	Salmonella spp.			Negative	ND per 1 gram

MTO - Mycotoxin Analysis

Analyzed May 06, 2024 | Instrument LC/MSMS | Method SOP-004

Analyte	LOD ug/kg	LOQ ug/kg	Result ug/kg (ppb)	Limit ug/kg	Analyte	LOD ug/kg	LOQ ug/kg	Result ug/kg (ppb)	Limit ug/kg
Ochratoxin A	5.0	20.0	ND	20	Aflatoxin B1	2.5	5.0	ND	-
Aflatoxin B2	2.5	5.0	ND	-	Aflatoxin G1	2.5	5.0	ND	-
Aflatoxin G2	2.5	5.0	ND	-	Total Aflatoxins	10.0	20.0	ND	20

UJ Unidentified
 ND Not Detected
 N/A Not Applicable
 NT Not Reported
 LOD Limit of Detection
 LOQ Limit of Quantification
 <LOQ Detected
 >ULOL Above upper limit of linearity
 CFU/g Colony Forming Units per 1 gram
 TNTC Too Numerous to Count



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PES - Pesticides Analysis

Analyzed May 07, 2024 | Instrument LC/MSMS GC/MSMS | Method SOP-003

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Aldicarb	0.0078	0.02	ND	0.0078	Carbofuran	0.01	0.02	ND	0.01
Dimethoate	0.01	0.02	ND	0.01	Etofenprox	0.02	0.1	ND	0.02
Fenoxycarb	0.01	0.02	ND	0.01	Thiachloprid	0.01	0.02	ND	0.01
Daminozide	0.01	0.03	ND	0.01	Dichlorvos	0.02	0.07	ND	0.02
Imazalil	0.02	0.07	ND	0.02	Methiocarb	0.01	0.02	ND	0.01
Spiroxamine	0.01	0.02	ND	0.01	Coumaphos	0.01	0.02	ND	0.01
Fipronil	0.01	0.1	ND	0.01	Paclbutrazol	0.01	0.03	ND	0.01
Chlorpyrifos	0.01	0.04	ND	0.01	Ethoprophos (Prophos)	0.01	0.02	ND	0.01
Baygon (Propoxur)	0.01	0.02	ND	0.01	Chlordane	0.04	0.1	ND	0.04
Chlorfenapyr	0.03	0.1	ND	0.03	Methyl Parathion	0.02	0.1	ND	0.02
Mevinphos	0.03	0.08	ND	0.03	Abamectin	0.03	0.08	ND	0.3
Acephate	0.02	0.05	ND	5	Acetamidrid	0.01	0.05	ND	5
Azoxystrobin	0.01	0.02	ND	40	Bifenazate	0.01	0.05	ND	5
Bifenthrin	0.02	0.35	ND	0.5	Boscalid	0.01	0.03	ND	10
Carbaryl	0.01	0.02	ND	0.5	Chlorantraniliprole	0.01	0.04	ND	40
Clofentezine	0.01	0.03	ND	0.5	Diazinon	0.01	0.02	ND	0.2
Dimethomorph	0.02	0.06	ND	20	Etoxazole	0.01	0.05	ND	15
Fenpyroximate	0.02	0.1	ND	2	Flonicamid	0.01	0.02	ND	2
Fludioxonil	0.01	0.05	ND	30	Hexythiazox	0.01	0.03	ND	2
Imidacloprid	0.01	0.05	ND	3	Kresoxim-methyl	0.01	0.03	ND	1
Malathion	0.01	0.05	ND	5	Metalaxyl	0.01	0.02	ND	15
Methomyl	0.02	0.05	ND	0.1	Myclobutanil	0.02	0.07	ND	9
Naled	0.01	0.02	ND	0.5	Oxamyl	0.01	0.02	ND	0.2
Permethrin	0.01	0.02	ND	20	Phosmet	0.01	0.02	ND	0.2
Piperonyl Butoxide	0.02	0.06	ND	8	Propiconazole	0.03	0.08	ND	20
Prallethrin	0.02	0.05	ND	0.4	Pyrethrin	0.05	0.41	ND	1
Pyridaben	0.02	0.07	ND	3	Spinosad A	0.01	0.05	ND	3
Spinosad D	0.01	0.05	ND	3	Spiromesifen	0.02	0.06	ND	12
Spirotetramat	0.01	0.02	ND	13	Tebuconazole	0.01	0.02	ND	2
Thiamethoxam	0.01	0.02	ND	4.5	Trifloxystrobin	0.01	0.02	ND	30
Acequinocyl	0.02	0.09	ND	4	Captan	0.01	0.02	ND	5
Cypermethrin	0.02	0.1	ND	1	Cyfluthrin	0.04	0.1	ND	1
Fenhexamid	0.02	0.07	ND	10	Spinetoram J.L	0.02	0.07	ND	3
Pentachloronitrobenzene	0.01	0.1	ND	0.2					

RES - Residual Solvents Analysis

Analyzed May 07, 2024 | Instrument GC/FID with Headspace Analyzer | Method SOP-006

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Propane (Prop)	0.4	40.0	ND	5000	Butane (But)	0.4	40.0	ND	5000
Methanol (Metha)	0.4	40.0	ND	3000	Ethylene Oxide (EthOx)	0.4	0.8	ND	1
Pentane (Pen)	0.4	40.0	ND	5000	Ethanol (Etham)	0.4	40.0	ND	5000
Ethyl Ether (EthEt)	0.4	40.0	ND	5000	Acetone (Acet)	0.4	40.0	ND	5000
Isopropanol (2-Pro)	0.4	40.0	ND	5000	Acetonitrile (Acetonit)	0.4	40.0	ND	410
Methylene Chloride (MetCh)	0.4	0.8	ND	1	Hexane (Hex)	0.4	40.0	ND	290
Ethyl Acetate (EthAc)	0.4	40.0	ND	5000	Chloroform (Clo)	0.4	0.8	ND	1
Benzene (Ben)	0.4	0.8	ND	1	1-2-Dichloroethane (12-Dich)	0.4	0.8	ND	1
Heptane (Hep)	0.4	40.0	ND	5000	Trichloroethylene (TriClIEth)	0.4	0.8	ND	1
Toluene (Toluene)	0.4	40.0	ND	890	Xylenes (Xyl)	0.4	40.0	ND	2170

FVI - Filth & Foreign Material Inspection Analysis

Analyzed May 06, 2024 | Instrument Microscope | Method SOP-010

Analyte / Limit	Result	Analyte / Limit	Result
> 1/4 of the total sample area covered by sand, soil, cinders, or dirt	ND	> 1/4 of the total sample area covered by mold	ND
> 1 insect fragment, 1 hair, or 1 count mammalian excreta per 3g	ND	> 1/4 of the total sample area covered by an imbedded foreign material	ND

MWA - Moisture Content & Water Activity Analysis

Analyzed May 03, 2024 | Instrument Chilled-mirror Dewpoint and Capacitance | Method SOP-008

Analyte	LOD %	LOQ %	Result	Limit	Analyte	LOD %	LOQ %	Result	Limit
Moisture (Moi)	0.0	0.0	9.1 % Mw	13 % Mw	Water Activity (WA)	0.03	0.03	0.62 a _w	0.85 a _w

UJ Unidentified
 ND Not Detected
 N/A Not Applicable
 NT Not Reported
 LOD Limit of Detection
 LOQ Limit of Quantification
 <LOQ Detected
 >ULOL Above upper limit of linearity
 CFU/g Colony Forming Units per 1 gram
 TNTC Too Numerous to Count



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