PharmLabs San Diego Certificate of Analysis

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Sample Astro 3.5 HHCP + THCP + THCA Disp - Pluto Punch

		Matrix Concentrate (Inhalable Cannabis Good)
Tested for A8 Industries		
Sampled -	Received Jul 27, 2023	Reported Aug 01, 2023
Angluses executed CANX, PES.	HME. OARUSH	Unit Mass (a) 3.5

Laboratory note: The estimated concentration of the unknown peak in the sample is 2125% | Currently PharmLabs laboratory can not confirm an unidentified peak in your chromatogram due to interference (only with highly concentrated D8 products) from which we believe to be either (+)48-THC or d8-THC. At this time there are no reference standards available for (+)48-THC is a different compound from the main (-)48-THC cannabinoid and, therefore, these two compounds may have different efficacies. Using the most advanced instruments and techniques available, the separation of (+)48-THC and d9-THC is problematic for the scientific community as a whole. PharmLabs believes the unidentified peak to be a combination of (+)d8-THC with the majority, if not all, of the concentration being (+)d8-THC. Total (+/-) D8 Concentration is estimated to be: 57.12%

CANX - Cannabinoids Analysis

Analyzed Aug 01, 2023 | Instrument HPLC-VWD | Method
The expanded Uncertainty of the Cannabinoid analysis is approximately \$\mathcal{J}\$.806% at the 95% Confidence Level

The expanded Uncertainty of the Cannabinoid analysis is approximately \$\mathbb{I}.806					
Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g	Result mg/Unit
11-Hydroxy- Δ 8-Tetrahydrocannabivarin (11-Hyd- Δ 8-THCV)	0.013	0.041	ND	ND	ND
Cannabidiorcin (CBDO)	0.002	0.007	ND	ND	ND
Abnormal Cannabidiorcin (a-CBDO)	0.01	0.031	ND	ND	ND
(+/-)-9B-hydroxy-Hexahydrocannibinol (9b-HHC)	0.012	0.036	ND	ND	ND
11-Hydroxy-Δ8-Tetrahydrocannabinol (11-Hyd-Δ8-THC)	0.007	0.021	ND	ND	ND
Cannabidiolic Acid (CBDA)	0.001	0.16	ND	ND	ND
Cannabigerol Acid (CBGA)	0.001	0.16	ND	ND	ND
Cannabigerol (CBG)	0.001	0.16	ND	ND	ND
Cannabidiol (CBD)	0.001	0.16	ND	ND	ND
1(S)-THD (s-THD)	0.013	0.041	ND	ND	ND
1(R)-THD (r-THD)	0.025	0.075	ND	ND	ND
Tetrahydrocannabivarin (THCV)	0.001	0.16	ND	ND	ND
Δ8-tetrahydrocannabivarin (Δ8-THCV)	0.021	0.064	ND	ND	ND
Cannabidihexol (CBDH)	0.005	0.16	ND	ND	ND
Tetrahydrocannabutol (Δ9-THCB)	0.013	0.038	ND	ND	ND
Cannabinol (CBN)	0.001	0.16	ND	ND	ND
Cannabidiphorol (CBDP)	0.015	0.047	ND	ND	ND
exo-THC (exo-THC)	0.005	0.16	ND	ND	ND
Tetrahydrocannabinol (Δ9-THC)	0.003	0.16	0.26	2.60	9.11
$\Delta 8$ -tetrahydrocannabinol ($\Delta 8$ -THC)	0.004	0.16	58.15	581.54	2035.38
(6aR,9S)-Δ10-Tetrahydrocannabinol ((6aR,9S)-Δ10)	0.015	0.16	ND	ND	ND
Hexahydrocannabinol (S Isomer) (9s-HHC)	0.017	0.16	6.52	65.15	228.01
(6aR,9R)- Δ 10-Tetrahydrocannabinol ((6aR,9R)- Δ 10)	0.007	0.16	ND	ND	ND
Hexahydrocannabinol (R Isomer) (9r-HHC)	0.016	0.16	15.15	151.53	530.37
Tetrahydrocannabinolic Acid (THCA)	0.001	0.16	4.64	46.38	162.33
Δ 9-Tetrahydrocannabihexol (Δ 9-THCH)	0.024	0.071	ND	ND	ND
Cannabinol Acetate (CBNO)	0.014	0.043	ND	ND	ND
Δ9-Tetrahydrocannabiphorol (Δ9-THCP)	0.017	0.16	6.18	61.84	216.44
Δ8-Tetrahydrocannabiphorol (Δ8-THCP)	0.041	0.16	ND	ND	ND
Cannabicitran (CBT)	0.005	0.16	ND	ND	ND
Δ8-THC-O-acetate (Δ8-THCO)	0.076	0.16	ND	ND	ND
9(S)-HHCP (s-HHCP)	0.031	0.094	ND	ND	ND
Δ 9-THC-O-acetate (Δ 9-THCO)	0.066	0.16	ND	ND	ND
9(R)-HHCP (r-HHCP)	0.026	0.079	ND	ND	ND
9(S)-HHC-O-acetate (s-HHCO)	0.005	0.16	ND	ND	ND
9(R)-HHC-O-acetate (r-HHCO)	0.008	0.025	ND	ND	ND
3-octyl- Δ 8-Tetrahydrocannabinol (Δ 8-THC-C8)	0.067	0.204	ND	ND	ND
Total THC (THCa * 0.877 + Δ9THC)			4.33	43.28	151.47
Total THC + Δ 8THC + Δ 10THC (THCa * 0.877 + Δ 9THC + Δ 8THC + Δ 10THC)			62.22	622.21	2177.74
Total CBD (CBDa * 0.877 + CBD)			ND	ND	ND
Total CBG (CBGa * 0.877 + CBG)			ND	ND	ND
Total HHC (9r-HHC + 9s-HHC)			21.67	216.68	758.38
Total Cannabinoids			90.33	903.34	3161.67



HME - Heavy Metals Analysis

Analyzed Jul 28, 2023 | 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	<loq< td=""><td>0.5</td></loq<>	0.5
Mercury (Hg)	0.0058	0.0174	ND	3
Lead (Pb)	0.0006	0.0018	0.01	0.5
Nickel (Ni)	6.0e-05	0.0002	NT	

UI Unidentified
ND Not Detected
N/A Not Applicable
NT Not Reported
LOD Limit of Detection
LOQ Limit of Quantification
-(-\QQ) Detected
-\UQQ Lot Above upper limit of linearity
CFU/Q Colony Forming Units per 1 gram
TNTC Too Numerous to Count





Authorized Signature

Brandon Starr



PES - Pesticides Analysis

Analyzed Jul 31, 2023 | 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
enoxycarb	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
mazalil	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
ipronil	0.01	0.1	ND	0.01	Paclobutrazol	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
hlorfenapyr	0.03	0.1	ND	0.03	Methyl Parathion	0.02	0.1	ND	0.02
1evinphos	0.03	0.08	ND	0.03	Abamectin	0.03	0.08	ND	0.1
cephate	0.02	0.05	ND	0.1	Acetamiprid	0.01	0.05	ND	0.1
zoxystrobin	0.01	0.02	ND	0.1	Bifenazate	0.01	0.05	ND	0.1
lifenthrin	0.02	0.35	ND	3	Boscalid	0.01	0.03	ND	0.1
arbaryl	0.01	0.02	ND	0.5	Chlorantraniliprole	0.01	0.04	ND	10
lofentezine	0.01	0.03	ND	0.1	Diazinon	0.01	0.02	ND	0.1
imethomorph	0.02	0.06	ND	2	Etoxazole	0.01	0.05	ND	0.1
enpyroximate	0.02	0.1	ND	0.1	Flonicamid	0.01	0.02	ND	0.1
ludioxonil	0.01	0.05	ND	0.1	Hexythiazox	0.01	0.03	ND	0.1
midacloprid	0.01	0.05	ND	5	Kresoxim-methyl	0.01	0.03	ND	0.1
1alathion	0.01	0.05	ND	0.5	Metalaxyl	0.01	0.02	ND	2
1ethomyl	0.02	0.05	ND	1	Myclobutanil	0.02	0.07	ND	0.1
laled	0.01	0.02	ND	0.1	Oxamyl	0.01	0.02	ND	0.5
ermethrin	0.01	0.02	ND	0.5	Phosmet	0.01	0.02	ND	0.1
Piperonyl Butoxide	0.02	0.06	ND	3	Propiconazole	0.03	0.08	ND	0.1
rallethrin	0.02	0.05	ND	0.1	Pyrethrin	0.05	0.41	ND	0.5
yridaben	0.02	0.07	ND	0.1	Spinosad A	0.01	0.05	ND	0.1
pinosad D	0.01	0.05	ND	0.1	Spiromesifen	0.02	0.06	ND	0.1
pirotetramat	0.01	0.02	ND	0.1	Tebuconazole	0.01	0.02	ND	0.1
hiamethoxam	0.01	0.02	ND	5	Trifloxystrobin	0.01	0.02	ND	0.1
cequinocyl	0.02	0.09	ND	0.1	Captan	0.01	0.02	ND	0.7
Cypermethrin	0.02	0.1	ND	1	Cyfluthrin	0.04	0.1	ND	2
enhexamid	0.02	0.07	ND	0.1	Spinetoram J,L	0.02	0.07	ND	0.1
Pentachloronitrobenzene	0.01	0.1	ND	0.1	•				

UI Unidentified
ND Not Detected
N/A Not Applicable
NT Not Reported
LOD Limit of Detection
LOQ Limit of Quantification
4.0Q Detected
VULOL Above upper limit of linearity
CFU/g Colony Forming Units per 1 gram
TNTC Too Numerous to Count





Authorized Signature

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