

# CERTIFICATE OF ANALYSIS

\* FOR QUALITY ASSURANCE PURPOSES. NOT A MICHIGAN COMPLIANCE CERTIFICATE.

PRODUCED: JUL 09, 2021

**SAMPLE:** PET FORMULA (TINCTURE) // **CLIENT:** NUVITA CBD // **BATCH:** PASS  
600 MG / 60 ML, BATCH # 17521



**MATRIX:** TINCTURE  
**CATEGORY:** EDIBLE  
**SAMPLE ID:** CAM-210706-064  
**COLLECTED ON:** JUL 06, 2021  
**RECEIVED ON:** JUL 06, 2021  
**BATCH/SAMPLE SIZE:** 60 ML / 60 ML  
**SERVING/PACKAGE SIZE:** .94 G / 56.4 G

## CANNABINOID OVERVIEW

<b>CBD:</b>	<b>10.34 mg/srv</b>
<b>CBC:</b>	<b>0.54 mg/srv</b>
<b>TOTAL CANNABINOIDS:</b>	<b>11.34 mg/srv</b>

### BATCH RESULT: PASS

POTENCY	PASS
METALS	PASS
MICROBIAL	TESTED
PESTICIDES	PASS
SOLVENTS	PASS
TERPENES	TESTED

### POT-01: CANNABINOID POTENCY ANALYSIS BY HPLC-DAD // JUL 08, 2021

ANALYTE	AMT (%)	LOD/LOQ (µg/g)	PASS/FAIL	ANALYTE	AMT (%)	LOD/LOQ (µg/g)	PASS/FAIL
CBC	0.0572 %	0.0517/0.172	N/A	THCA	ND	0.0883/0.294	N/A
CBD	1.10 %	0.109/0.363	N/A	THCV	ND	0.0699/0.233	N/A
CBDA	ND	0.142/0.474	N/A	<b>TOTAL THC *</b>	0.0421 %		N/A
CBDV	ND	0.0673/0.224	N/A	<b>TOTAL CBD *</b>	1.10 %		N/A
CBG	0.00750 %	0.0576/0.192	N/A	CBD/SRV	10.3 mg		N/A
CBGA	ND	0.0328/0.109	N/A	Δ <sup>9</sup> -THC/SRV	0.400 mg		PASS
CBN	ND	0.0848/0.283	N/A	CBD/PKG	620 mg		N/A
Δ <sup>9</sup> -THC	ND	0.0578/0.193	N/A	Δ <sup>9</sup> -THC/PKG	23.7 mg		PASS
Δ <sup>9</sup> -THC	0.0421 %	0.102/0.34	N/A				

\* BEYOND SCOPE OF ACCREDITATION  
\*\* TOTAL THC = (THCA X 0.877) + THC  
\*\* TOTAL CBD = (CBDA X 0.877) + CBD

### TRP-013: TERPENE ANALYSIS BY GC-MS/HS // JUL 08, 2021

ANALYTE	AMT (%)	LOD/LOQ (µg/g)	PASS/FAIL	ANALYTE	AMT (%)	LOD/LOQ (µg/g)	PASS/FAIL
<b>TOTAL TERPENES *</b>	0.081 %		N/A	ISOBORNEOL	ND	0.5/1	N/A
TRANS-CARYOPHYLLENE	0.050 %	0.5/1	N/A	(+)-FENCHONE	ND	0.5/1	N/A
α-BISABOLOL	0.013 %	0.5/1	N/A	Δ <sup>3</sup> -CARENE	ND	0.5/1	N/A
α-HUMULENE	0.006 %	0.5/1	N/A	γ-TERPINENE	ND	0.5/1	N/A
β-MYRCENE	0.005 %	0.5/1	N/A	EUCALYPTOL	ND	0.5/1	N/A
GUAJOL	0.002 %	0.5/1	N/A	(1R)-ENDO-(+)-FENCHYL ALCOHOL	ND	0.5/1	N/A
SABINENE HYDRATE	0.002 %	0.5/1	N/A	CIS-NEROLIDOL	ND	0.5/1	N/A
TRANS-NEROLIDOL	0.001 %	0.5/1	N/A	CEDROL	ND	0.5/1	N/A
LIMONENE	0.001 %	0.5/1	N/A	CARYOPHYLLENE OXIDE	ND	0.5/1	N/A
CIS-β-OCIMENE	0.001 %	0.5/1	N/A	CAMPHOR	ND	0.5/1	N/A
TRANS-β-OCIMENE	ND	0.5/1	N/A	CAMPHENE	ND	0.5/1	N/A
TERPINOLENE	ND	0.5/1	N/A	β-PINENE	ND	0.5/1	N/A
GERANYL ACETATE	ND	0.5/1	N/A	α-TERPINENE	ND	0.5/1	N/A
SABINENE	ND	0.5/1	N/A	α-PINENE	ND	0.5/1	N/A
PULEGONE	ND	0.5/1	N/A	α-PHELLANDRENE	ND	0.5/1	N/A
LINALOOL *	ND	0.5/1	N/A	α-CEDRENE	ND	0.5/1	N/A
ISOPULEGOL	ND	0.5/1	N/A	VALENCENE	ND	0.5/1	N/A



**RESULTS CERTIFIED BY:** XIN YAN  
LABORATORY DIRECTOR, CAMBIUM ANALYTICA  
JUL 09, 2021

*Xin Yan*

**RESULTS CERTIFIED BY:** DOUGLAS SMITH  
CHIEF SCIENTIST, CAMBIUM ANALYTICA  
JUL 09, 2021

*Douglas Smith*



**PLC-02: CHEMICAL RESIDUE ANALYSIS BY LC-MS/MS // JUL 08, 2021**

ANALYTE	LIMIT	AMT (µg/g)	LOD/LOQ (µg/kg)	PASS/FAIL	ANALYTE	LIMIT	AMT (µg/g)	LOD/LOQ (µg/kg)	PASS/FAIL
ABAMECTIN	0.5 µg/g	ND	69.9/233	PASS	IMAZALIL	0.2 µg/g	ND	15.7/52.3	PASS
ACEPHATE	0.4 µg/g	ND	16.5/54.9	PASS	IMIDACLOPRID	0.4 µg/g	ND	34.3/114	PASS
ACEQUINOCYL	2 µg/g	ND	28.5/95	PASS	KRESOXIM-METHYL	0.4 µg/g	ND	12/40	PASS
ACETAMIPRID	0.2 µg/g	ND	14.6/48.8	PASS	MALATHION	0.2 µg/g	ND	15.8/52.7	PASS
ALDICARB	0.4 µg/g	ND	42.9/143	PASS	METALAXYL	0.2 µg/g	ND	17.8/59.2	PASS
AZOXYSTROBIN	0.2 µg/g	ND	10.6/35.3	PASS	METHIOCARB	0.2 µg/g	ND	14/46.7	PASS
BIFENAZATE	0.2 µg/g	ND	25.4/84.5	PASS	METHOMYL	0.4 µg/g	ND	9.54/31.8	PASS
BIFENTHRIN	0.2 µg/g	ND	14.7/49.1	PASS	MGK-264	0.2 µg/g	ND	19.4/64.8	PASS
BOSCALID	0.4 µg/g	ND	12.9/42.2	PASS	MYCLOBUTANIL	0.2 µg/g	ND	20/66.5	PASS
CARBARYL	0.2 µg/g	ND	12.2/40.7	PASS	NALED	0.5 µg/g	ND	23.3/77.6	PASS
CARBOFURAN	0.2 µg/g	ND	10.8/36	PASS	OXAMYL	1 µg/g	ND	35.7/119	PASS
CHLORANTRANIL-IPROLE	0.2 µg/g	ND	24.9/82.9	PASS	PACLOBUTRAZOL	0.4 µg/g	ND	36.7/122	PASS
CHLORFENAPYR	1 µg/g	ND	12.2/40.8	PASS	PERMETHRIN	0.2 µg/g	ND	38.2/128	PASS
CHLORPYRIFOS	0.2 µg/g	ND	25/83.3	PASS	PHOSMET	0.2 µg/g	ND	24.2/80.7	PASS
CLOFENTEZINE	0.2 µg/g	ND	20.4/68	PASS	PRALLETHRIN	0.2 µg/g	ND	37.6/125	PASS
CYFLUTHRIN	1 µg/g	ND	39.2/131	PASS	PROPICONAZOLE	0.4 µg/g	ND	41/137	PASS
CYPERMETHRIN	1 µg/g	ND	28/93.5	PASS	PROPOXUR	0.2 µg/g	ND	11.8/39.2	PASS
DAMINOZIDE	1 µg/g	ND	24.2/80.6	PASS	PYRETHRINS	1 µg/g	ND	20.3/67.6	PASS
DIAZINON	0.2 µg/g	ND	18.8/62.8	PASS	PYRIDABEN	0.2 µg/g	ND	26.4/88.1	PASS
DICHLORVOS	1 µg/g	ND	12.7/42.4	PASS	SPINOSAD	0.2 µg/g	ND	5.96/19.9	PASS
DIMETHOATE	0.2 µg/g	ND	12.4/41.3	PASS	SPINOSAD A		ND	6.46/21.5	N/A
ETHOPROPHOS	0.2 µg/g	ND	19.3/64.4	PASS	SPINOSAD D		ND	2.44/8.1	N/A
ETOFENPROX	0.4 µg/g	ND	14.5/48.5	PASS	SPIROMESIFEN	0.2 µg/g	ND	14.8/49.3	PASS
ETOXAZOLE	0.2 µg/g	ND	13.7/45.6	PASS	SPIROTETRAMAT	0.2 µg/g	ND	35.9/120	PASS
FENOXYCARB	0.2 µg/g	ND	20.2/67.4	PASS	SPIROXAMINE	0.4 µg/g	ND	12.4/41.4	PASS
FENPYROXIMATE	0.4 µg/g	ND	44.5/148	PASS	TEBUCONAZOLE	0.4 µg/g	ND	38.1/127	PASS
FIPRONIL	0.4 µg/g	ND	45.7/152	PASS	THIACLOPRID	0.2 µg/g	ND	15.7/52.2	PASS
FLONICAMID	1 µg/g	ND	22.5/74.9	PASS	THIAMETHOXAM	0.2 µg/g	ND	13.9/46.2	PASS
FLUDIOXONIL	0.4 µg/g	ND	11.1/37.1	PASS	TRIFLOXYSTROB-IN	0.2 µg/g	ND	19/63.2	PASS
HEXYTHIAZOX	1 µg/g	ND	28.6/95.2	PASS					

**PGC-03: CHEMICAL RESIDUE ANALYSIS BY GC-MS/MS // JUL 08, 2021**

ANALYTE	LIMIT	AMT (µg/g)	LOD/LOQ (µg/kg)	PASS/FAIL	ANALYTE	LIMIT	AMT (µg/g)	LOD/LOQ (µg/kg)	PASS/FAIL
CHLORFENAPYR	1 µg/g	ND	6.09/20.4	PASS	METHYL PARATHION	0.2 µg/g	ND	3.11/10.4	PASS



**MIC-06: MICROBIAL SCREENING BY QPCR // JUL 08, 2021**

ANALYTE	LIMIT	AMT (CFU/g)	PASS/FAIL
<b>COLIFORMS</b>	100 CFU/g	ND	N/A
<b>ASPERGILLUS NIGER</b>	Any amount in 1 gram	ND	N/A
<b>ASPERGILLUS FLAVUS</b>	Any amount in 1 gram	ND	N/A
<b>SALMONELLA BONGORI</b>	Any amount in 1 gram	ND	N/A

ANALYTE	LIMIT	AMT (CFU/g)	PASS/FAIL
<b>ASPERGILLUS TERREUS</b>	Any amount in 1 gram	ND	N/A
<b>SALMONELLA ENTERICA</b>	Any amount in 1 gram	ND	N/A
<b>ASPERGILLUS FUMIGATUS</b>	Any amount in 1 gram	ND	N/A
<b>SHIGA TOXIN-PRODUCING E. COLI</b>	Any amount in 1 gram	ND	N/A

**: TYM BY 3M PETRIFILM RYM // JUL 09, 2021**

ANALYTE	LIMIT	AMT (CFU/g)	PASS/FAIL
<b>YEAST &amp; MOLD</b>	10000 CFU/g	ND	N/A

**MET-05: HEAVY METALS ANALYSIS BY ICP-MS // JUL 08, 2021**

ANALYTE	LIMIT	AMT (µg/g)	LOD/LOQ (µg/kg)	PASS/FAIL
<b>ARSENIC</b>	1.5 µg/g	ND	0.0448/0.5	PASS
<b>CADMIUM</b>	0.5 µg/g	ND	0.0256/0.5	PASS
<b>CHROMIUM</b>	2 µg/g	0.010 µg/g	0.0274/0.5	PASS
<b>COPPER</b>		ND	0.0446/0.5	N/A

ANALYTE	LIMIT	AMT (µg/g)	LOD/LOQ (µg/kg)	PASS/FAIL
<b>LEAD</b>	0.5 µg/g	ND	0.0169/0.5	PASS
<b>MERCURY</b>	3 µg/g	ND	0.00439/0.05	PASS
<b>NICKEL</b>		0.009 µg/g	0.0271/0.5	N/A

**SOL-04: RESIDUAL SOLVENT ANALYSIS BY GC-MS // JUL 08, 2021**

ANALYTE	LIMIT	AMT (µg/g)	LOD/LOQ (µg/g)	PASS/FAIL
<b>1,2-DICHLOROETHANE</b>	5 µg/g	ND	0.4/1.34	PASS
<b>2,2-DIMETHYLBUTANE</b>	290 µg/g	ND	0.98/3.27	PASS
<b>2,3-DIMETHYLBUTANE</b>	290 µg/g	ND	2.19/7.32	PASS
<b>2-METHYLBUTANE</b>	5000 µg/g	ND	1.54/5.14	PASS
<b>3-METHYLPENTANE</b>	290 µg/g	ND	0.73/2.44	PASS
<b>ACETONE</b>	5000 µg/g	ND	1.57/5.23	PASS
<b>ACETONITRILE</b>	410 µg/g	ND	1.85/6.17	PASS
<b>BENZENE</b>	2 µg/g	ND	0.18/0.59	PASS
<b>BUTANE</b>	5000 µg/g	ND	1.68/5.59	PASS
<b>BUTANES ALL ISOMERS *</b>	5000 µg/g	ND		PASS
<b>CHLOROFORM</b>	60 µg/g	ND	0.78/2.59	PASS
<b>ETHANOL</b>	5000 µg/g	ND	6.02/20.1	PASS
<b>ETHYL ACETATE</b>	5000 µg/g	ND	1.95/6.49	PASS
<b>ETHYLENE OXIDE</b>	50 µg/g	ND	0.15/0.49	PASS
<b>ETHYL ETHER</b>	5000 µg/g	ND	1.37/4.55	PASS

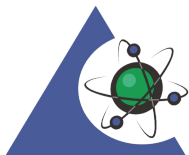
ANALYTE	LIMIT	AMT (µg/g)	LOD/LOQ (µg/g)	PASS/FAIL
<b>HEPTANE</b>	5000 µg/g	ND	1.31/4.37	PASS
<b>HEXANE</b>	290 µg/g	ND	1.42/4.74	PASS
<b>HEXANES ALL ISOMERS *</b>	290 µg/g	ND		PASS
<b>ISOBUTANE</b>	5000 µg/g	ND	1.6/5.34	PASS
<b>ISOPROPYL ALCOHOL</b>	5000 µg/g	ND	4.9/16.3	PASS
<b>METHANOL</b>	3000 µg/g	ND	7.89/26.4	PASS
<b>METHYLENE CHLORIDE</b>	600 µg/g	ND	1.36/4.53	PASS
<b>NEOPENTANE</b>	5000 µg/g	ND	1.49/4.97	PASS
<b>PENTANE</b>	5000 µg/g	ND	1.46/4.87	PASS
<b>PENTANES ALL ISOMERS *</b>	5000 µg/g	ND		PASS
<b>PROPANE</b>	5000 µg/g	ND	1.95/6.51	PASS
<b>TOLUENE</b>	890 µg/g	ND	1.88/6.26	PASS
<b>TRICHLOROETHYLENE</b>	80 µg/g	ND	0.29/0.96	PASS
<b>TOTAL XYLENES</b>	2170 µg/g	ND	2.02/6.72	PASS

\* BEYOND SCOPE OF ACCREDITATION





ILAC-MRA



ISO/IEC 17025

**ILAC-MRA, PJLA ACCREDITED****PLC-02: CHEMICAL RESIDUE ANALYSIS BY LC-MS/MS**

ABAMECTIN, ABAMECTIN BA, ABAMECTIN BB, ACEPHATE, ACEQUINOCYL, ACETAMIPRID, ALDICARB, AZOXYSTROBIN, BIFENAZATE, BIFENTHRIN, BOSCALID, CARBARYL, CARBOFURAN, CHLORANTRANILIPROLE, CHLORFENAPYR, CHLORPYRIFOS, CLOFENTEZINE, CYFLUTHRIN, CYPERMETHRIN, DAMINOZIDE, DIAZINON, DICHLORVOS, DIMETHOATE, ETHOPROPHOS, ETOFENPROX, ETOXAZOLE, FENOXYCARB, FENPYROXIMATE, FIPRONIL, FLONICAMID, FLUDIOXONIL, HEXYTHIAZOX, IMAZALIL, IMIDACLOPRID, KRESOXIM-METHYL, MGK-264, MALATHION, MALATHION A, METALAXYL, METHIOCARB, METHOMYL, METHYL PARATHION, MYCLOBUTANIL, NALED, OXAMYL, PACLOBUTRAZOL, PERMETHRIN, PERMETHRIN CIS, PERMETHRIN TRANS, PHOSMET, PRALLETHRIN, PROPICONAZOLE, PROPOXUR, PYRETHRINS, PYRETHRINS CINERIN I, PYRETHRINS CINERIN I-3, PYRETHRINS JASMOLIN I, PYRETHRINS JASMOLIN I-3, PYRETHRINS PYRETHRIN I, PYRIDABEN, SPINOSAD, SPINOSAD A, SPINOSAD D, SPIROMESIFEN, SPIROTETRAMAT, SPIROXAMINE, TEBUCONAZOLE, THACLOPRID, THIAMETHOXAM, TRIFLOXYSTROBIN

**POT-01: CANNABINOID POTENCY ANALYSIS BY HPLC-DAD**

CBD, CBDA, DELTA-9-THC, THCA, CBDV, THCV, CBG, CBGA, CBN, DELTA-8-THC, CBC

**TRP-013: TERPENE ANALYSIS BY GC-MS/HS**

(+)-FENCHONE, (1R)-ENDO-(+)-FENCHYL ALCOHOL, CAMPHENE, CAMPHOR, CARYOPHYLLENE OXIDE, CEDROL, DELTA-3-CARENE, EUCALYPTOL, FENCHOL, GERANIOL, GERANYL ACETATE, GUAJOL, ISOBORNEOL, ISOPULEGOL, LIMONENE, NEROLIDOL, OCIMENE, PHELLANDRENE, PULEGONE, SABINENE, SABINENE HYDRATE, TERPINEOL 3, TERPINOLENE, VALENCENE, ALPHA-BISABOLOL, ALPHA-CEDRENE, ALPHA-HUMULENE, ALPHA-PHELLANDRENE, ALPHA-PINENE, ALPHA-TERPINENE, BETA-MYRCENE, BETA-PINENE, CIS-NEROLIDOL, CIS-BETA-OCIMENE, GAMMA-TERPINENE, TRANS-CARYOPHYLLENE, TRANS-NEROLIDOL, TRANS-BETA-OCIMENE

**SOL-04: RESIDUAL SOLVENT ANALYSIS BY GC-MS**

1,2-DICHLOROETHANE, 2,2-DIMETHYLBUTANE, 2,3-DIMETHYLBUTANE, 2-METHYLBUTANE, 2-METHYLPENTANE, 3-METHYLPENTANE, ACETONE, ACETONITRILE, BENZENE, BUTANE, CHLOROFORM, ETHANOL, ETHYL ACETATE, ETHYL ETHER, ETHYLENE OXIDE, HEPTANE, HEXANE, ISOBUTANE, ISOPROPYL ALCOHOL, METHANOL, METHYLENE CHLORIDE, NEOPENTANE, PENTANE, PROPANE, TOLUENE, TOTAL XYLENES, TRICHLOROETHYLENE, M-XYLENE, O-XYLENE, P- AND M-XYLENE, P-XYLENE

**MET-05: HEAVY METALS ANALYSIS BY ICP-MS**

ARSENIC, CADMIUM, CHROMIUM, COPPER, LEAD, MERCURY, NICKEL

**PGC-03: CHEMICAL RESIDUE ANALYSIS BY GC-MS/MS**

CHLORFENAPYR, METHYL PARATHION

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