



**Populum Zen Pets Hemp Oil 250mg  
Batch 21137126**

**Kapu Maku, LLC dba Populum**

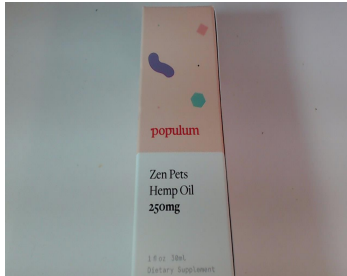
Test Result UID: ANL0048929

Lot Inventory ID:

Lab Inventory ID:

Date Tested: 10/21/2021

Serving Size: 1 Bottle (30 ml) = 27.3 g



**Summary**

<b>294.35 mg/s</b> Total Cannabinoids	<b>Pass</b> Microbial	<b>Not Tested</b> Mycotoxins	<b>Pass</b> Residual Solvents	<b>Pass</b> Pesticides	<b>Pass</b> Heavy Metals
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**Cannabinoids**

Testing method: HPLC-SOP 0011

Analyte	LOD	LOQ	Mass	Mass
Δ9-THC-A	0.000 mg/g	0.001 mg/g	0.042 mg/g	1.146 mg/s
Δ9-THC	0.000 mg/g	0.001 mg/g	0.411 mg/g	11.215 mg/s
Δ9-THCV	0.000 mg/g	0.001 mg/g	ND mg/g	ND mg/s
Δ8-THC	0.000 mg/g	0.001 mg/g	ND mg/g	ND mg/s
CBN	0.000 mg/g	0.001 mg/g	0.030 mg/g	0.814 mg/s
CBD-A	0.000 mg/g	0.001 mg/g	0.137 mg/g	3.739 mg/s
CBD	0.000 mg/g	0.001 mg/g	9.709 mg/g	265.060 mg/s
CBDV-A	0.000 mg/g	0.001 mg/g	0.003 mg/g	0.081 mg/s
CBDV	0.000 mg/g	0.001 mg/g	0.090 mg/g	2.470 mg/s
CBG-A	0.000 mg/g	0.001 mg/g	0.004 mg/g	0.121 mg/s
CBG	0.000 mg/g	0.001 mg/g	0.103 mg/g	2.815 mg/s
CBC	0.000 mg/g	0.001 mg/g	0.252 mg/g	6.890 mg/s

**12.22 mg/s**  
Total THC

**268.34 mg/s**  
Total CBD

**Terpenes**

Testing method: HSGCFID-SOP 0030

Analyte	LOD	LOQ	Mass	Mass
α-Pinene	0.00 mg/g	0.01 mg/g	ND mg/g	ND mg/s
β-Pinene	0.00 mg/g	0.01 mg/g	ND mg/g	ND mg/s
Myrcene	0.00 mg/g	0.01 mg/g	ND mg/g	ND mg/s
Ocimene	0.00 mg/g	0.01 mg/g	NT	NT
Limonene	0.00 mg/g	0.01 mg/g	ND mg/g	ND mg/s
Terpinolene	0.00 mg/g	0.01 mg/g	ND mg/g	ND mg/s
Linalool	0.00 mg/g	0.01 mg/g	ND mg/g	ND mg/s
Caryophyllene	0.00 mg/g	0.01 mg/g	ND mg/g	ND mg/s
Humulene	0.00 mg/g	0.01 mg/g	ND mg/g	ND mg/s

**ND mg/s**  
Total Terpenes

**Not Tested**  
Moisture  
SOP-0009

**Not Tested**  
Water Activity  
SOP-0053

**Not Tested**  
Foreign Matter  
SOP-0010

Total THC = Δ9-THC-A \* 0.877 + Δ9-THC  
Total CBD = CBD-A \* 0.877 + CBD  
LOQ = Limit of Quantification; LOD = Limit of Detection; NT = Not Tested; ND = Not Detected  
The values reported pertain only to the product tested.



Analytical 360, LLC certifies that the results presented are true and correct to the best of our knowledge. These results relate only to the sample provided by the client to Analytical 360, LLC.

Reference Lab  
Analytical 360, LLC subcontracts the following assays:  
Pesticides and Heavy Metals performed by Medicine Creek Analytics (WSLCB Lab #0018)

Approved By

*Paul D. Matthews, Ph.D.*

Paul Matthews, Ph.D.  
Executive Lab Director / Chief Science Officer



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**Microbial** Testing method: PLATE-SOP 0007

Analyte	LOD	LOQ	Action Level	Mass	Status
Enterobacteria	20 CFU/g	85 CFU/g	1000 CFU/g	NT	NT
Salmonella spp.	-	-	Any Detected in 1 g		NT
Escherichia coli	-	-	Any Detected in 1 g		NT
Total Aerobic Bacteria	170 CFU/g	850 CFU/g	No Limit	520 CFU/g	
Total Yeast and Mold	170 CFU/g	850 CFU/g	No Limit	ND CFU/g	
Total Coliforms	20 CFU/g	85 CFU/g	No Limit	ND CFU/g	

**Mycotoxins** Testing method: ELISA-SOP 0054

Analyte	LOD	LOQ	Action Level	Mass	Status
Aflatoxins B1, B2, G1, G2	0.1 ppb	1.0 ppb	20 ppb	NT	NT
Ochratoxin A	0.1 ppb	1.0 ppb	20 ppb	NT	NT

**Heavy Metals** Testing method: ICPMS-SOP 0055

Analyte	LOD	LOQ	Action Level	Mass	Status
Arsenic	0.02 ug/5g	0.06 ug/5g	10 ug/5g	ND ug/5g	Pass
Cadmium	0.01 ug/5g	0.04 ug/5g	4.1 ug/5g	ND ug/5g	Pass
Lead	0.01 ug/5g	0.02 ug/5g	6 ug/5g	ND ug/5g	Pass
Mercury	0.02 ug/5g	0.07 ug/5g	2 ug/5g	ND ug/5g	Pass

Washington State I-502 Recreational Marijuana Microbial / Mycotoxins Action Levels

Counts not to exceed:

- 1,000 CFU/g Enterobacteria for solvent extracts and edibles
- 10,000 CFU/g Enterobacteria for flower, hash and kief
- *E coli* and *Salmonella* **not detected** in one gram for all products
- 20 ppb for Aflatoxins B1, B2, G1, G2, and Ochratoxin A for all products

LOQ = Limit of Quantification; LOD = Limit of Detection; NT = Not Tested; ND = Not Detected  
CFU/g = Colony Forming Units Per Gram; ppm = Parts per Million; ppb = Parts per Billion  
TNTC = Too Numerous To Count

The values reported pertain only to the product tested.

**Pass**  
Microbial

**Not Tested**  
Mycotoxins

**Pass**  
Heavy Metals



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**Residual Solvents** Testing method: HSGCFID-SOP 0020

Analyte	LOD	LOQ	Action Level	Mass
Propane	1 ppm	20 ppm	5000 ppm	ND ppm
Isobutane	1 ppm	20 ppm	5000 ppm	ND ppm
Butane	1 ppm	20 ppm	5000 ppm	ND ppm
Ethanol	1 ppm	20 ppm	No Limit	NT
Acetone	1 ppm	20 ppm	5000 ppm	ND ppm
Toluene	1 ppm	20 ppm	890 ppm	ND ppm
Pentane	1 ppm	20 ppm	5000 ppm	ND ppm
Isopropanol	1 ppm	20 ppm	5000 ppm	ND ppm
Hexane	1 ppm	20 ppm	290 ppm	ND ppm
Heptane	1 ppm	20 ppm	5000 ppm	ND ppm
Isopentane	1 ppm	20 ppm	5000 ppm	ND ppm
Tetrahydrofuran	1 ppm	20 ppm	720 ppm	ND ppm
Methanol	1 ppm	20 ppm	3000 ppm	ND ppm
Acetonitrile	1 ppm	20 ppm	410 ppm	ND ppm
Dichloromethane	1 ppm	20 ppm	600 ppm	ND ppm
Ethyl Acetate	1 ppm	20 ppm	5000 ppm	ND ppm
Chloroform	1 ppm	2 ppm	2 ppm	ND ppm
Cyclohexane	1 ppm	20 ppm	3900 ppm	ND ppm
Benzene	1 ppm	2 ppm	2 ppm	ND ppm
Ethyl Benzene	1 ppm	20 ppm	2200 ppm	ND ppm
m + p Xylenes	1 ppm	20 ppm	2200 ppm	ND ppm
o Xylene	1 ppm	20 ppm	2200 ppm	ND ppm
Total Xylenes	1 ppm	20 ppm	2200 ppm	ND ppm

LOQ = Limit of Quantification; LOD = Limit of Detection; NT = Not Tested; ND = Not Detected  
ppm = Parts Per Million

The values reported pertain only to the product tested.

**ND ppm**  
**Total Solvents**



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**Pesticides** Testing method: LCMS-SOP 0055

Analyte	LOD	LOQ	Mass	Action Level	Analyte	LOD	LOQ	Mass	Action Level
	ppm	ppm		ppm		ppm	ppm		ppm
Methamidophos	0.033	0.1	ND ppm	0.1	Daminozide			Not Tested	1
Acephate	0.1	0.3	ND ppm	0.4	Omethoate	0.05	0.2	ND ppm	0.1
Pymetrozine	0.05	0.2	ND ppm	0.1	Propamocarb	0.04	0.125	ND ppm	0.1
Flonicamid			ND ppm	1	Aldicarb Sulfone	0.05	0.2	ND ppm	0.4
Aminocarb	0.033	0.1	ND ppm	0.1	Nitenpyram	0.05	0.2	ND ppm	0.1
Oxamyl	0.033	0.1	ND ppm	1	Fenuron	0.033	0.1	ND ppm	0.1
Thiamethoxam	0.05	0.2	ND ppm	0.2	3-Hydroxycarbofuran	0.075	0.25	ND ppm	0.2
Mexacarbate	0.033	0.1	ND ppm	0.1	Dimethoate	0.05	0.2	ND ppm	0.2
Clothianidin	0.05	0.15	ND ppm	0.1	Imidacloprid	0.05	0.2	ND ppm	0.4
Dicofthos	0.05	0.15	ND ppm	0.1	Yamidothion	0.033	0.1	ND ppm	0.1
Acetamiprid	0.033	0.1	ND ppm	0.2	Fuberidazole	0.033	0.1	ND ppm	0.1
Pyracarbolid	0.04	0.125	ND ppm	0.1	Propoxur	0.04	0.125	ND ppm	0.2
Carbetamide	0.05	0.15	ND ppm	0.1	Thiophanate-Methyl	0.05	0.15	ND ppm	0.1
Carbofuran	0.05	0.15	ND ppm	0.2	Tricyclazole	0.05	0.15	ND ppm	0.1
Oxadixyl	0.05	0.2	ND ppm	0.1	Ethiofencarb	0.075	0.25	ND ppm	0.1
Thiacloprid	0.05	0.15	ND ppm	0.2	Carboxin	0.05	0.15	ND ppm	0.1
Isoprocarb	0.05	0.2	ND ppm	0.1	Carbaryl	0.05	0.2	ND ppm	0.2
Tebuthiuron	0.04	0.125	ND ppm	0.1	Pyrimicarb	0.05	0.15	ND ppm	0.1
Chlorotoluron	0.05	0.2	ND ppm	0.1	Cyfluron	0.05	0.15	ND ppm	0.1
Isoproturon	0.05	0.15	ND ppm	0.1	Fluometuron	0.05	0.2	ND ppm	0.1
Diuron	0.1	0.3	ND ppm	0.1	Chlorantraniliprole	0.075	0.25	ND ppm	0.2
Fenamidone	0.05	0.15	ND ppm	0.1	Methabenzthiazuron	0.05	0.15	ND ppm	0.1
Prometon	0.05	0.15	ND ppm	0.1	Diethofencarb	0.05	0.15	ND ppm	0.1
Methiocarb			ND ppm	0.2	Metalaxyl	0.05	0.15	ND ppm	0.2
Pacloubtrazol	0.05	0.2	ND ppm	0.4	Furalaxyl	0.05	0.15	ND ppm	0.1
Methoprotryne	0.05	0.2	ND ppm	0.1	Azoxystrobin	0.05	0.2	ND ppm	0.2
Mepronil			ND ppm	0.1	Chloroxuron	0.05	0.15	ND ppm	0.1
Flutolanil	0.05	0.2	ND ppm	0.1	Iprovalicarb	0.05	0.2	ND ppm	0.1
Myclobutanil	0.075	0.25	ND ppm	0.2	Mandipropamid	0.05	0.2	ND ppm	0.1
Mefenacet	0.05	0.15	ND ppm	0.1	Imazail	0.1	0.4	ND ppm	0.2
Bifenazate	0.05	0.2	ND ppm	0.2	Fenoxycarb	0.05	0.2	ND ppm	0.2
Dimethomorph	0.05	0.2	ND ppm	0.1	Kresoxym-methyl	0.05	0.15	ND ppm	0.4
Methoxyfenozide	0.05	0.15	ND ppm	0.1	Spiromesifen	0.04	0.125	ND ppm	0.2
Epoxiconazole	0.075	0.25	ND ppm	0.1	Dimoxystrobin	0.05	0.15	ND ppm	0.1
Spirotetramat	0.05	0.2	ND ppm	0.2	Tebufozide	0.05	0.15	ND ppm	0.1
Tebuconazole	0.05	0.2	ND ppm	0.4	Clofentazine			ND ppm	0.2
Rotenone	0.05	0.2	ND ppm	0.1	Zoxamide	0.05	0.2	ND ppm	0.1
Flufenacet	0.05	0.2	ND ppm	0.1	Picoxystrobin	0.05	0.2	ND ppm	0.1
Carfentrazone-ethyl NH4	0.05	0.2	ND ppm	0.1	Butafenacil	0.05	0.15	ND ppm	0.1
Benalaxyl	0.05	0.15	ND ppm	0.1	Thiobencarb	0.05	0.2	ND ppm	0.1
Cyazofamid	0.05	0.15	ND ppm	0.1	Pyraclostrobin	0.05	0.15	ND ppm	0.1
Furathiocarb	0.05	0.2	ND ppm	0.1	Trifloxystrobin	0.04	0.125	ND ppm	0.2
Pyriproxyfen	0.05	0.15	ND ppm	0.1	Hexythiazox	0.05	0.2	ND ppm	1
Piperonyl Butoxide	0.05	0.15	ND ppm	2	Triflumizole	0.05	0.15	ND ppm	0.1
Propargite	0.04	0.125	ND ppm	0.1	Quinoxifen	0.033	0.1	ND ppm	0.1
Etoxazole	0.05	0.2	ND ppm	0.2	Indoxacarb	0.05	0.2	ND ppm	0.1
Pyrethrin II			ND ppm	1	Pyridaben	0.05	0.2	ND ppm	0.2
Pyrethrin I			ND ppm	1	Fenazaquin	0.05	0.2	ND ppm	0.1
Fenpyroximate	0.04	0.125	ND ppm	0.4	Spinosad A	0.05	0.2	ND ppm	0.2
Spinosad D	0.05	0.2	ND ppm	0.2	Abamectin B1a	0.15	0.45	ND ppm	0.5
Permethrin NH4	0.05	0.2	ND ppm	0.2	Fludioxonil			ND ppm	0.4
Fipronil	0.1	0.3	ND ppm	0.4	Fluazinam	0.075	0.25	ND ppm	0.1
Ethoprofos	0.1	0.4	ND ppm	0.2	Chlorpyrifos	0.075	0.25	ND ppm	0.2
Aldicarb	0.075	0.25	ND ppm	0.1	Bifenthrin	0.05	0.2	ND ppm	0.2
Boscalid			ND ppm	0.1	Diazinon	0.05	0.2	ND ppm	0.1
Etofenprox	0.04	0.125	ND ppm	0.1	Malathion	0.05	0.2	ND ppm	0.1
Methomyl	0.05	0.2	ND ppm	0.1	Monocrotophos			ND ppm	0.1
Phosmet	0.05	0.2	ND ppm	0.1	Spiroxamine	0.05	0.15	ND ppm	0.1
Uniconazole	0.075	0.25	ND ppm	0.1					

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**Pass**  
**Pesticides**



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