



**Populum Cold Therapy Hemp Rub
Batch 19025053**

Kapu Maku, LLC dba Populum

Test Result UID: ANL0048930

Lot Inventory ID:

Lab Inventory ID:

Date Tested: 10/21/2021

Serving Size:

1 Tube = 90.0 g



Summary

105.51 mg/s Total Cannabinoids	Pass Microbial	Not Tested Mycotoxins	Pass Residual Solvents	Pass Pesticides	Pass 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	ND mg/g	ND mg/s
Δ9-THC	0.000 mg/g	0.001 mg/g	0.047 mg/g	4.243 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	ND mg/g	ND mg/s
CBD-A	0.000 mg/g	0.001 mg/g	0.011 mg/g	0.996 mg/s
CBD	0.000 mg/g	0.001 mg/g	1.067 mg/g	95.988 mg/s
CBDV-A	0.000 mg/g	0.001 mg/g	ND mg/g	ND mg/s
CBDV	0.000 mg/g	0.001 mg/g	0.002 mg/g	0.194 mg/s
CBG-A	0.000 mg/g	0.001 mg/g	ND mg/g	ND mg/s
CBG	0.000 mg/g	0.001 mg/g	0.007 mg/g	0.672 mg/s
CBC	0.000 mg/g	0.001 mg/g	0.038 mg/g	3.418 mg/s

4.24 mg/s
Total THC

96.86 mg/s
Total CBD

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.

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
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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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Date Tested: 10/21/2021

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	210 CFU/g	
Total Yeast and Mold	170 CFU/g	850 CFU/g	No Limit	110 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

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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

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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
Pacllobutrazol	0.05	0.2	ND ppm	0.4	Furalaxyl	0.05	0.15	ND ppm	0.1
Methoprotiryne	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	Tebufenozide	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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ppm = Parts Per Million

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Pass
Pesticides



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