

Certificate of Analysis- Pure Analytics InfoTest™

Customer Name: *Medicleaf*
Sample Name: *Medicleaf Full Profile CBD Tincture 300 mg*
Sample Batch I.D.: *NA*
Lab Sample I.D.: *PAN2331-1*
Sample Type: *Tincture*
Date Received: *12/30/2021*
Date Tested: *1/4-1/7/2021*
Date Reported: *1/7/2021*
QC Batch(es): *PA16826*
Tests Performed: *Cannabinoids*

Results Summary:

| Item | Report Status |
|------------------|---------------|
| Cannabinoids | NA |
| Pesticides | NT |
| Residual Solvent | NT |
| Moisture | NT |
| Microbiology | NT |
| Water Activity | NT |
| Filth & Foreign | NT |
| Mycotoxins | NT |
| Heavy Metals | NT |
| Terpenes | NT |



Cannabinoid Analysis:

| THC | THCA | d-8 THC | CBD | CBDA | CBN | CBC | CBCA | CBG | CBGA | CBL | THCV | THCVA | CBDV | CBDVA | Total THC* | Total CBD** | Total |
|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|-------------|-------|
| % wt. | % wt. | % wt. | % wt. | % wt. | % wt. | % wt. | % wt. | % wt. | % wt. | % wt. | % wt. | % wt. | % wt. | % wt. | % wt. | % wt. | % wt. |
| ND | ND | ND | 0.57% | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | 0.57% | 0.57% |
| mg/mL | mg/mL | mg/mL | mg/mL | mg/mL | mg/mL | mg/mL | mg/mL | mg/mL | mg/mL | mg/mL | mg/mL | mg/mL | mg/mL | mg/mL | mg/mL | mg/mL | mg/mL |
| ND | ND | ND | 5.70 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | 5.70 | 5.70 |
| mg/g | mg/g | mg/g | mg/g | mg/g | mg/g | mg/g | mg/g | mg/g | mg/g | mg/g | mg/g | mg/g | mg/g | mg/g | mg/g | mg/g | mg/g |
| NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

*Flowers Reported on % DRY WT. Basis; *Total THC=(THCA * 0.877) + THC + d-8 THC; **Total CBD=(CBDA * 0.877) + CBD
 Method: Extraction by Methanol, IPA, Acetonitrile or Ethanol with sonication and HPLC-DAD confirmation analysis as needed by GC-FID analysis*

Residual Solvent:

Method: Full Evaporation Technique by GC-MS

CA CATEGORY 1

| Compound | (ug/g) | Inhal. Action Lim. (ug/g) | Other Action Lim. (ug/g) | PASS/FAIL | LOQ (ug/g) | LOD (ug/g) | NOTES: |
|--------------------|--------|---------------------------|--------------------------|-----------|------------|------------|--------|
| 1,2-Dichloroethane | NA | 1.0 | 1.0 | NA | 1.00 | 0.80 | |
| Benzene | NA | 1.0 | 1.0 | NA | 1.00 | 0.20 | |
| Chloroform | NA | 1.0 | 1.0 | NA | 1.00 | 0.20 | |
| Ethylene Oxide | NA | 1.0 | 1.0 | NA | 1.00 | 0.80 | |
| Methylene chloride | NA | 1.0 | 1.0 | NA | 1.00 | 0.80 | |
| Trichloroethylene | NA | 1.0 | 1.0 | NA | 1.00 | 0.20 | |

CA CATEGORY 2

| Compound | (ug/g) | Inhal. Action Lim. (ug/g) | Other Action Lim. (ug/g) | PASS/FAIL | LOQ (ug/g) | LOD (ug/g) | NOTES: |
|-----------------------------|-----------|---------------------------|--------------------------|-----------|------------|------------|--------|
| n-Butane | NA | 5000 | 5000 | NA | 2.0 | 0.50 | |
| n-Pentane | NA | 5000 | 5000 | NA | 2.0 | 0.50 | |
| Acetone | NA | 5000 | 5000 | NA | 2.0 | 0.50 | |
| Ethanol | NA | 5000 | 5000 | NA | 2.0 | 0.50 | |
| n-Hexane | NA | 290 | 290 | NA | 2.0 | 0.50 | |
| Methanol | NA | 3000 | 3000 | NA | 2.0 | 0.50 | |
| 2-Propanol | NA | 5000 | 5000 | NA | 2.0 | 0.50 | |
| Acetonitrile | NA | 410 | 410 | NA | 5.0 | 1.00 | |
| Ethyl acetate | NA | 5000 | 5000 | NA | 2.0 | 0.50 | |
| n-Heptane | NA | 5000 | 5000 | NA | 2.0 | 0.50 | |
| Ether | NA | 5000 | 5000 | NA | 2.0 | 0.50 | |
| Toluene | NA | 890 | 890 | NA | 2.0 | 0.50 | |
| Ethyl xylenes | NA | 2170 | 2170 | NA | 2.0 | 0.50 | |
| Propane | NA | 5000 | 5000 | NA | 2.0 | 0.50 | |
| Total Cat. 1 & 2 | NA | | | | | | |

Heavy Metals:

Method: Acid digestion in heated block. Analysis using graphite furnace, atomic fluorescence spectroscopy, atomic absorption decomposition analysis

| Compound | (ug/g) | Inhal. Action Lim. (ug/g) | Other Action Lim. (ug/g) | PASS/FAIL | LOQ (ug/g) | LOD (ug/g) | NOTES: |
|----------|--------|---------------------------|--------------------------|-----------|------------|------------|--------|
| Mercury | NA | 0.1 | 3 | NA | 0.03 | 0.006 | |
| Lead | NA | 0.5 | 0.5 | NA | 0.10 | 0.020 | |
| Cadmium | NA | 0.2 | 0.5 | NA | 0.02 | 0.004 | |
| Arsenic | NA | 0.2 | 1.5 | NA | 0.20 | 0.040 | |

Microbiology Analysis:

| Analysis | PASS/FAIL | Analysis | CFU/g |
|-------------|-----------|--------------------|-------|
| E. coli | NA | APC | NA |
| Salmonella | NA | Total coliform | NA |
| Aspergillus | NA | Pseudomonas | NA |
| nigers | NA | terreus | NA |
| flavus | NA | fumigatus | NA |
| | | Total yeast & mold | NA |
| | | Enterobacteriaceae | NA |

Testing performed by:

Pure Analytics
 5468 Skylane Blvd Ste 102
 Santa Rosa, CA 95403
 CA License #: C8-000018-LIC

The results contained in this report only pertain to the specific sample submitted. This certificate may not be reproduced in full without permission from the laboratory.

ND: Not Detected NA: Not Applicable; NT: Test Not Performed

Approved by: *Samantha J. Miller*

Certificate of Analysis- Pure Analytics InfoTest™

Customer Name: *Medicleaf*
Sample Name: *Medicleaf Full Profile CBD Tincture 300 mg*
Lab Sample I.D.: *PAN2331-1*
Pesticides Analysis:
Method: Acetone extraction with sonication, dSPE clean-up, LCMSMS and GC-ECD analysis

| Compound | Result (ug/g) | Action lim. (ug/g) | PASS/FAIL | LOQ (ug/g) | LOD (ug/g) | NOTES |
|----------------------|---------------|--------------------|-----------|------------|------------|-------|
| CA CATEGORY I | | | | | | |
| Aldicarb | NA | > LOD | NA | 0.020 | 0.005 | |
| Carbofuran | NA | > LOD | NA | 0.010 | 0.001 | |
| Chlordane | NA | > LOD | NA | 0.020 | 0.005 | |
| Chlorfenapyr | NA | > LOD | NA | 0.100 | 0.020 | |
| Chlorpyrifos | NA | > LOD | NA | 0.100 | 0.020 | |
| Coumaphos | NA | > LOD | NA | 0.100 | 0.005 | |
| Daminozide | NA | > LOD | NA | 0.100 | 0.010 | |
| Dichlorvos | NA | > LOD | NA | 0.010 | 0.001 | |
| Dimethoate | NA | > LOD | NA | 0.100 | 0.020 | |
| Ethoprop | NA | > LOD | NA | 0.100 | 0.020 | |
| Etofenprox | NA | > LOD | NA | 0.010 | 0.001 | |
| Fenoxycarb | NA | > LOD | NA | 0.020 | 0.005 | |
| Fipronil | NA | > LOD | NA | 0.020 | 0.005 | |
| Imazalil | NA | > LOD | NA | 0.100 | 0.005 | |
| Methiocarb | NA | > LOD | NA | 0.100 | 0.005 | |
| Parathion-methyl | NA | > LOD | NA | 0.100 | 0.010 | |
| Mevinphos | NA | > LOD | NA | 0.100 | 0.050 | |
| Paclbutrazol | NA | > LOD | NA | 0.100 | 0.005 | |
| Propoxur | NA | > LOD | NA | 0.010 | 0.001 | |
| Spiroxamine | NA | > LOD | NA | 0.010 | 0.001 | |
| Thiacloprid | NA | > LOD | NA | 0.020 | 0.005 | |

Mycotoxin Analysis:
Method: Acetone extraction with sonication, dSPE clean-up, LCMSMS analysis

| Compound | Result (ug/kg) | Action lim. (ug/kg) | PASS/FAIL | LOQ (ug/kg) | LOD (ug/kg) | NOTES |
|-----------------|----------------|---------------------|-----------|-------------|-------------|-------|
| Aflatoxin B1 | NA | NA | NA | 2.0 | 0.5 | |
| Aflatoxin B2 | NA | NA | NA | 2.0 | 0.5 | |
| Aflatoxin G1 | NA | NA | NA | 2.0 | 0.5 | |
| Aflatoxin G2 | NA | NA | NA | 2.0 | 0.5 | |
| Total Aflatoxin | NA | <20 ug/kg | NA | 2.0 | 0.5 | |
| Ochratoxin A | NA | <20 ug/kg | NA | 2.0 | 0.5 | |

| Compound | Result (ug/g) | Action lim. (ug/g) | | PASS/FAIL | LOQ (ug/g) | LOD (ug/g) | NOTES |
|-----------------------|---------------|--------------------|---------|-----------|------------|------------|-------|
| | | (Inhale) | (Other) | | | | |
| Abamectin | NA | 0.1 | 0.3 | NA | 0.10 | 0.001 | |
| Acephate | NA | 0.1 | 5 | NA | 0.10 | 0.02 | |
| Acequinocyl | NA | 0.1 | 4 | NA | 0.02 | 0.02 | |
| Acetamiprid | NA | 0.1 | 5 | NA | 0.02 | 0.02 | |
| Azoxystrobin | NA | 0.1 | 40 | NA | 0.02 | 0.01 | |
| Bifenazate | NA | 0.1 | 5 | NA | 0.02 | 0.001 | |
| Bifenthrin | NA | 3 | 0.5 | NA | 0.10 | 0.005 | |
| Boscalid | NA | 0.1 | 10 | NA | 0.02 | 0.01 | |
| Captan | NA | 0.7 | 5 | NA | 0.01 | 0.005 | |
| Cyfluthrin | NA | 2 | 1 | NA | 0.10 | 0.001 | |
| Cypermethrin | NA | 1 | 1 | NA | 0.10 | 0.05 | |
| Carbaryl | NA | 0.5 | 0.5 | NA | 0.02 | 0.001 | |
| Chlorantraniliprole | NA | 10 | 40 | NA | 0.02 | 0.01 | |
| Clofentezine | NA | 0.1 | 0.5 | NA | 0.02 | 0.001 | |
| Diazinon | NA | 0.1 | 0.2 | NA | 0.02 | 0.001 | |
| Dimethomorph | NA | 2 | 20 | NA | 0.02 | 0.001 | |
| Etoxazole | NA | 0.1 | 1.5 | NA | 0.02 | 0.005 | |
| Fenhexamid | NA | 0.1 | 10 | NA | 0.01 | 0.001 | |
| Fenpyroximate | NA | 0.1 | 2 | NA | 0.02 | 0.01 | |
| Fonicamid | NA | 0.1 | 2 | NA | 0.02 | 0.001 | |
| Fludioxonil | NA | 0.1 | 30 | NA | 0.10 | 0.02 | |
| Hexythiazox | NA | 0.1 | 2 | NA | 0.02 | 0.01 | |
| Imidacloprid | NA | 5 | 3 | NA | 0.10 | 0.02 | |
| Kresoxim-methyl | NA | 0.1 | 1 | NA | 0.02 | 0.02 | |
| Malathion | NA | 0.5 | 5 | NA | 0.20 | 0.001 | |
| Metalaxyl | NA | 2 | 15 | NA | 0.02 | 0.01 | |
| Methomyl | NA | 1 | 0.1 | NA | 0.02 | 0.001 | |
| Myclobutanil | NA | 0.1 | 9 | NA | 0.005 | 0.001 | |
| Naled | NA | 0.1 | 0.5 | NA | 0.10 | 0.02 | |
| Oxamyl | NA | 0.5 | 0.2 | NA | 0.05 | 0.01 | |
| Pentachloronitrobenz. | NA | 0.1 | 0.2 | NA | 0.10 | 0.02 | |
| Permethrin | NA | 0.5 | 20 | NA | 0.025 | 0.005 | |
| Phosmet | NA | 0.1 | 0.2 | NA | 0.02 | 0.02 | |
| Piperonyl butoxide | NA | 3 | 8.0 | NA | 0.005 | 0.001 | |
| Prallethrin | NA | 0.1 | 0.4 | NA | 0.02 | 0.01 | |
| Propiconazole | NA | 0.1 | 20.0 | NA | 0.02 | 0.01 | |
| Pyrethrins | NA | 0.5 | 1 | NA | 0.07 | 0.01 | |
| Pyridaben | NA | 0.1 | 3 | NA | 0.02 | 0.001 | |
| Spinetoram | NA | 0.1 | 3 | NA | 0.07 | 0.005 | |
| Spinosad | NA | 0.1 | 3 | NA | 0.10 | 0.02 | |
| Spiromesifen | NA | 0.1 | 12 | NA | 0.10 | 0.02 | |
| Spirotetramat | NA | 0.1 | 13 | NA | 0.10 | 0.02 | |
| Tebuconazole | NA | 0.1 | 2 | NA | 0.10 | 0.02 | |
| Trifloxystrobin | NA | 0.10 | 30 | NA | 0.01 | 0.005 | |
| Thiamethoxam | NA | 5 | 4.5 | NA | 0.10 | 0.01 | |

Testing performed by:

Pure Analytics

5468 Skylane Blvd Ste 102

Santa Rosa, CA 95403

CA License #: C8-0000018-LIC

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Certificate of Analysis- Pure Analytics InfoTest™

Customer Name: *Medicileaf*

Sample Name: *Medicileaf Full Profile CBD Tincture 300 mg*

Lab Sample I.D.: *PAN2331-1*

Terpene Analysis:

Method: Methanol Extraction with Sonication and GC-FID Analysis

| Compound | % wt. | Action lim. (ug/kg) | PASS/ FAIL | LOQ (ug/kg) | LOD (ug/kg) | NOTES |
|-----------------|-----------|---------------------|------------|-------------|-------------|-------|
| α-Pinene | NA | NA | NA | 0.01 | 0.005 | |
| Camphene | NA | NA | NA | 0.01 | 0.005 | |
| β-Pinene | NA | NA | NA | 0.01 | 0.005 | |
| β-Myrcene | NA | NA | NA | 0.01 | 0.005 | |
| 3-Carene | NA | NA | NA | 0.01 | 0.005 | |
| R-Limonene | NA | NA | NA | 0.01 | 0.005 | |
| Eucalyptol | NA | NA | NA | 0.01 | 0.005 | |
| Ocimene | NA | NA | NA | 0.01 | 0.005 | |
| γ-Terpinene | NA | NA | NA | 0.01 | 0.005 | |
| Terpinolene | NA | NA | NA | 0.01 | 0.005 | |
| Linalool | NA | NA | NA | 0.01 | 0.005 | |
| Fenchol | NA | NA | NA | 0.01 | 0.005 | |
| (+)-Pulegone | NA | NA | NA | 0.01 | 0.005 | |
| Menthol | NA | NA | NA | 0.01 | 0.005 | |
| Borneol | NA | NA | NA | 0.01 | 0.005 | |
| α-Terpineol | NA | NA | NA | 0.01 | 0.005 | |
| Geraniol | NA | NA | NA | 0.01 | 0.005 | |
| β-Caryophyllene | NA | NA | NA | 0.01 | 0.005 | |
| α-Humulene | NA | NA | NA | 0.01 | 0.005 | |
| Valencene | NA | NA | NA | 0.01 | 0.005 | |
| Farnesene | NA | NA | NA | 0.01 | 0.005 | |
| trans-Nerolidol | NA | NA | NA | 0.01 | 0.005 | |
| cis-Nerolidol | NA | NA | NA | 0.01 | 0.005 | |
| Guaiol | NA | NA | NA | 0.01 | 0.005 | |
| α-Bisabolol | NA | NA | NA | 0.01 | 0.005 | |
| Eicosane | NA | NA | NA | 0.01 | 0.005 | |
| Camphor | NA | NA | NA | 0.01 | 0.005 | |
| L-Fenchone | NA | NA | NA | 0.01 | 0.005 | |
| Sabinene | NA | NA | NA | 0.01 | 0.005 | |
| β-Caryoph. Ox. | NA | NA | NA | 0.01 | 0.005 | |
| Phytol | NA | NA | NA | 0.01 | 0.005 | |
| a-Phellandrene | NA | NA | NA | 0.01 | 0.005 | |
| Total % | NA | | | | | |

Filth & Foreign Material Inspection:

Filth & Foreign Material by method 89370.96 using stereo microscope

Filth & Foreign Inspection

| Observations: | PASS/ FAIL |
|---------------|------------|
| | NA |

Water Activity Analysis:

Water Activity by method 89370.98 on a Novasina LabTouch-aw

| Water Activity | Result | Action Limit (Aw) | | PASS/ FAIL |
|----------------|--------|-------------------|-------|------------|
| | | Inhale | Other | |
| Aw | NA | 0.65 | 0.85 | NA |

Moisture Content Analysis:

Moisture Content method by method 89370.98 using ThermoFisher programmable oven

| Moisture Content | Result | Action Limit | PASS/ FAIL |
|------------------|--------|--------------|------------|
| % Moisture | NA | 13.0% | NA |

Vitamin E Acetate Analysis:

Method: Extraction by Acetone with sonication and analysis by HPLC-DAD

| Compound | Result | Action Limit (mg/kg) | LOQ (mg/kg) |
|-------------------|--------|----------------------|-------------|
| Vitamin E Acetate | NA | NA | 5.00 |

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