**KCA Laboratories**
232 North Plaza Drive
Nicholasville, KY 40356

+1-833-KCA-LABS
https://kcalabs.com
KDA Lic.# P_0058

# Certificate of Analysis

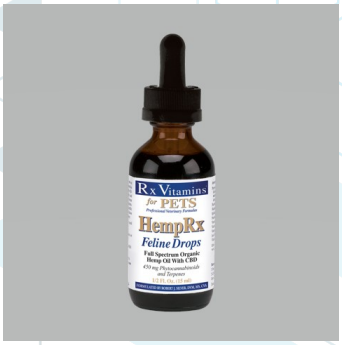


## HempRx Feline

Sample ID: SA-221012-12883
Batch: #221011
Type: Finished Products
Matrix: Oil / Liquid - Hemp Seed Oil
Unit Mass (g):

Received: 10/12/2022
Completed: 11/09/2022

**Client**
Permahill Extracts
427 Hume Bedford Pike
Paris, KY 40361
USA
Lic. #: P_0413




## Summary

| Test | Date Tested | Status |
|---|---|---|
| Cannabinoids | 11/09/2022 | Tested |
| Heavy Metals | 10/21/2022 | Tested |
| Microbials | 10/18/2022 | Tested |
| Mycotoxins | 10/19/2022 | Tested |
| Pesticides | 10/19/2022 | Tested |
| Residual Solvents | 10/13/2022 | Tested |
| Terpenes | 10/19/2022 | Tested |

| 1.67 mg/mL | 35.8 mg/mL | 41.0 mg/mL | Not Tested | Not Tested | Yes |
|---|---|---|---|---|---|
| Total Δ9-THC | CBD | Total Cannabinoids | Moisture Content | Foreign Matter | Internal Standard Normalization |

## Cannabinoids by HPLC-PDA, LC-MS/MS, and/or GC-MS/MS

| Analyte | LOD (mg/mL) | LOQ (mg/mL) | Result (mg/mL) | Result (%) | Result (mg/unit) |
|---|---|---|---|---|---|
| CBC | 0.00095 | 0.00284 | 1.97353 | 0.214 | 29.6 |
| CBCA | 0.00181 | 0.00543 | ND | ND | ND |
| CBCV | 0.0006 | 0.0018 | 0.0384 | 0.00416 | 0.576 |
| CBD | 0.00081 | 0.00242 | 35.76451 | 3.87 | 536 |
| CBDA | 0.00043 | 0.0013 | ND | ND | ND |
| CBDV | 0.00061 | 0.00182 | 0.5046 | 0.0546 | 7.57 |
| CBDVA | 0.00021 | 0.00063 | ND | ND | ND |
| CBG | 0.00057 | 0.00172 | 0.75006 | 0.0812 | 11.3 |
| CBGA | 0.00049 | 0.00147 | ND | ND | ND |
| CBL | 0.00112 | 0.00335 | 0.0835 | 0.00904 | 1.25 |
| CBLA | 0.00124 | 0.00371 | ND | ND | ND |
| CBN | 0.00056 | 0.00169 | 0.03006 | 0.00325 | 0.451 |
| CBNA | 0.0006 | 0.00181 | ND | ND | ND |
| CBT | 0.0018 | 0.0054 | 0.20139 | 0.0218 | 3.02 |
| Δ8-THC | 0.00104 | 0.00312 | ND | ND | ND |
| Δ9-THC | 0.00076 | 0.00227 | 1.66912 | 0.181 | 25.0 |
| Δ9-THCA | 0.00084 | 0.00251 | ND | ND | ND |
| Δ9-THCV | 0.00069 | 0.00206 | ND | ND | ND |
| Δ9-THCVA | 0.00062 | 0.00186 | ND | ND | ND |
| **Total Δ9-THC** | | | **1.67** | **0.181** | **25.0** |
| **Total CBD** | | | **35.8** | **3.87** | **536** |
| **Total** | | | **41.0** | **4.44** | **615** |

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; RL = Reporting Limit; Δ = Delta; Total Δ9-THC = Δ9-THCA * 0.877 + Δ9-THC; Total CBD = CBDA * 0.877 + CBD;

Generated By: Ryan Bellone
CCO
Date: 11/09/2022

Tested By: Nicholas Howard
Scientist
Date: 11/09/2022

ISO/IEC 17025:2017 Accredited
Accreditation #108651

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Completed: 11/09/2022

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427 Hume Bedford Pike
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Lic. #: P_0413

## Terpenes by HS-GC-MS/MS

| Analyte | LOD (%) | LOQ (%) | Result (%) | Analyte | LOD (%) | LOQ (%) | Result (%) |
|---|---|---|---|---|---|---|---|
| α-Bisabolol | 0.00100 | 0.00500 | ND | Limonene | 0.001 | 0.005 | ND |
| (+)-Borneol | 0.00100 | 0.00500 | ND | Linalool | 0.001 | 0.005 | ND |
| Camphene | 0.00100 | 0.00500 | ND | β-myrcene | 0.001 | 0.005 | ND |
| Camphor | 0.00100 | 0.00500 | ND | Nerol | 0.001 | 0.005 | ND |
| 3-Carene | 0.00100 | 0.00500 | ND | cis-Nerolidol | 0.001 | 0.005 | ND |
| β-Caryophyllene | 0.00100 | 0.00500 | ND | trans-Nerolidol | 0.001 | 0.005 | ND |
| Caryophyllene Oxide | 0.00100 | 0.00500 | ND | Ocimene | 0.001 | 0.005 | ND |
| α-Cedrene | 0.00100 | 0.00500 | ND | α-Phellandrene | 0.001 | 0.005 | ND |
| Cedrol | 0.00100 | 0.00500 | ND | α-Pinene | 0.001 | 0.005 | ND |
| Eucalyptol | 0.00100 | 0.00500 | ND | β-Pinene | 0.001 | 0.005 | ND |
| Fenchone | 0.00100 | 0.00500 | ND | Pulegone | 0.001 | 0.005 | ND |
| Fenchyl Alcohol | 0.00100 | 0.00500 | ND | Sabinene | 0.001 | 0.005 | ND |
| Geraniol | 0.00100 | 0.00500 | ND | Sabinene Hydrate | 0.001 | 0.005 | ND |
| Geranyl Acetate | 0.00100 | 0.00500 | ND | α-Terpinene | 0.001 | 0.005 | ND |
| Guaiol | 0.00100 | 0.00500 | ND | γ-Terpinene | 0.001 | 0.005 | ND |
| Hexadhydrothymol | 0.00100 | 0.00500 | ND | α-Terpineol | 0.001 | 0.005 | ND |
| α-Humulene | 0.00100 | 0.00500 | ND | γ-Terpineol | 0.001 | 0.005 | ND |
| Isoborneol | 0.00100 | 0.00500 | ND | Terpinolene | 0.001 | 0.005 | ND |
| Isopulegol | 0.00100 | 0.00500 | ND | **Total Terpenes (%)** | | | **0.000** |

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; P = Pass; F = Fail; RL = Reporting Limit

Generated By: Ryan Bellone
CCO
Date: 11/09/2022

Tested By: Alex Morris
Quality Assurance Manager
Date: 10/19/2022

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# Certificate of Analysis



## HempRx Feline

Sample ID: SA-221012-12883
Batch: #221011
Type: Finished Products
Matrix: Oil / Liquid - Hemp Seed Oil
Unit Mass (g):

Received: 10/12/2022
Completed: 11/09/2022

**Client**
Permahill Extracts
427 Hume Bedford Pike
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Lic. #: P_0413

## Heavy Metals by ICP-MS

| Analyte | LOD (ppb) | LOQ (ppb) | Result (ppb) |
|---|---|---|---|
| Arsenic | 2 | 20 | ND |
| Cadmium | 1 | 20 | ND |
| Lead | 2 | 20 | ND |
| Mercury | 12 | 50 | ND |

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Generated By: Ryan Bellone
CCO
Date: 11/09/2022

Tested By: Kelsey Rogers
Scientist
Date: 10/21/2022

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## Pesticides by LC-MS/MS and GC-MS/MS

| Analyte | LOD (ppb) | LOQ (ppb) | Result (ppb) | Analyte | LOD (ppb) | LOQ (ppb) | Result (ppb) |
|---|---|---|---|---|---|---|---|
| Acephate | 30 | 100 | ND | Hexythiazox | 30 | 100 | ND |
| Acetamiprid | 30 | 100 | ND | Imazalil | 30 | 100 | ND |
| Aldicarb | 30 | 100 | ND | Imidacloprid | 30 | 100 | ND |
| Azoxystrobin | 30 | 100 | ND | Kresoxim methyl | 30 | 100 | ND |
| Bifenazate | 30 | 100 | ND | Malathion | 30 | 100 | ND |
| Bifenthrin | 30 | 100 | ND | Metalaxyl | 30 | 100 | ND |
| Boscalid | 30 | 100 | ND | Methiocarb | 30 | 100 | ND |
| Carbaryl | 30 | 100 | ND | Methomyl | 30 | 100 | ND |
| Carbofuran | 30 | 100 | ND | Mevinphos | 30 | 100 | ND |
| Chloranthraniliprole | 30 | 100 | ND | Myclobutanil | 30 | 100 | ND |
| Chlorfenapyr | 30 | 100 | ND | Naled | 30 | 100 | ND |
| Chlorpyrifos | 30 | 100 | ND | Oxamyl | 30 | 100 | ND |
| Clofentezine | 30 | 100 | ND | Paclobutrazol | 30 | 100 | ND |
| Coumaphos | 30 | 100 | ND | Phosmet | 30 | 100 | ND |
| Daminozide | 30 | 100 | ND | Piperonyl Butoxide | 30 | 100 | ND |
| Diazinon | 30 | 100 | ND | Prallethrin | 30 | 100 | ND |
| Dichlorvos | 30 | 100 | ND | Propiconazole | 30 | 100 | ND |
| Dimethoate | 30 | 100 | ND | Propoxur | 30 | 100 | ND |
| Dimethomorph | 30 | 100 | ND | Pyrethrins | 30 | 100 | ND |
| Ethoprophos | 30 | 100 | ND | Pyridaben | 30 | 100 | ND |
| Etofenprox | 30 | 100 | ND | Spinetoram | 30 | 100 | ND |
| Etoxazole | 30 | 100 | ND | Spinosad | 30 | 100 | ND |
| Fenhexamid | 30 | 100 | ND | Spiromesifen | 30 | 100 | ND |
| Fenoxycarb | 30 | 100 | ND | Spirotetramat | 30 | 100 | ND |
| Fenpyroximate | 30 | 100 | ND | Spiroxamine | 30 | 100 | ND |
| Fipronil | 30 | 100 | ND | Tebuconazole | 30 | 100 | ND |
| Flonicamid | 30 | 100 | ND | Thiacloprid | 30 | 100 | ND |
| Fludioxonil | 30 | 100 | ND | Thiamethoxam | 30 | 100 | ND |
| | | | | Trifloxystrobin | 30 | 100 | ND |

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Generated By: Ryan Bellone
CCO
Date: 11/09/2022

Tested By: Jared Burkhart
Technical Manager
Date: 10/19/2022

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## Mycotoxins by LC-MS/MS

| Analyte | LOD (ppb) | LOQ (ppb) | Result (ppb) |
|---|---|---|---|
| B1 | 1 | 5 | ND |
| B2 | 1 | 5 | ND |
| G1 | 1 | 5 | ND |
| G2 | 1 | 5 | ND |
| Ochratoxin A | 1 | 5 | ND |

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; P = Pass; F = Fail; RL = Reporting Limit

Generated By: Ryan Bellone
CCO
Date: 11/09/2022

Tested By: Jared Burkhart
Technical Manager
Date: 10/19/2022

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Unit Mass (g):

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427 Hume Bedford Pike
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## Microbials by PCR and Plating

| Analyte | LOD (CFU/g) | Result (CFU/g) |
|---|---|---|
| Total aerobic count | 1 | ND |
| Total coliforms | 1 | ND |
| Generic E. coli | 1 | ND |
| Salmonella spp. | 1 | ND |
| Shiga-toxin producing E. coli (STEC) | 1 | ND |

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; CFU = Colony Forming Units; P = Pass; F = Fail; RL = Reporting Limit

Generated By: Ryan Bellone
CCO
Date: 11/09/2022

Tested By: Lucy Jones
Scientist
Date: 10/18/2022

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## HempRx Feline

Sample ID: SA-221012-12883
Batch: #221011
Type: Finished Products
Matrix: Oil / Liquid - Hemp Seed Oil
Unit Mass (g):

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Completed: 11/09/2022

**Client**
Permahill Extracts
427 Hume Bedford Pike
Paris, KY 40361
USA
Lic. #: P_0413

## Residual Solvents by HS-GC-MS/MS

| Analyte | LOD (ppm) | LOQ (ppm) | Result (ppm) | Analyte | LOD (ppm) | LOQ (ppm) | Result (ppm) |
|---|---|---|---|---|---|---|---|
| Acetone | 167 | 500 | ND | Ethylene Glycol | 21 | 62 | ND |
| Acetonitrile | 14 | 41 | ND | Ethylene Oxide | 0.5 | 1 | ND |
| Benzene | 0.5 | 1 | ND | Heptane | 167 | 500 | ND |
| Butane | 167 | 500 | ND | n-Hexane | 10 | 29 | ND |
| 1-Butanol | 167 | 500 | ND | Isobutane | 167 | 500 | ND |
| 2-Butanol | 167 | 500 | ND | Isopropyl Acetate | 167 | 500 | ND |
| 2-Butanone | 167 | 500 | ND | Isopropyl Alcohol | 167 | 500 | ND |
| Chloroform | 2 | 6 | ND | Isopropylbenzene | 167 | 500 | ND |
| Cyclohexane | 129 | 388 | ND | Methanol | 100 | 300 | ND |
| 1,2-Dichloroethane | 0.5 | 1 | ND | 2-Methylbutane | 10 | 29 | ND |
| 1,2-Dimethoxyethane | 4 | 10 | ND | Methylene Chloride | 20 | 60 | ND |
| Dimethyl Sulfoxide | 167 | 500 | ND | 2-Methylpentane | 10 | 29 | ND |
| N,N-Dimethylacetamide | 37 | 109 | ND | 3-Methylpentane | 10 | 29 | ND |
| 2,2-Dimethylbutane | 10 | 29 | ND | n-Pentane | 167 | 500 | ND |
| 2,3-Dimethylbutane | 10 | 29 | ND | 1-Pentanol | 167 | 500 | ND |
| N,N-Dimethylformamide | 30 | 88 | ND | n-Propane | 167 | 500 | ND |
| 2,2-Dimethylpropane | 167 | 500 | ND | 1-Propanol | 167 | 500 | ND |
| 1,4-Dioxane | 13 | 38 | ND | Pyridine | 7 | 20 | ND |
| Ethanol | 167 | 500 | ND | Tetrahydrofuran | 24 | 72 | ND |
| 2-Ethoxyethanol | 6 | 16 | ND | Toluene | 30 | 89 | ND |
| Ethyl Acetate | 167 | 500 | ND | Trichloroethylene | 3 | 8 | ND |
| Ethyl Ether | 167 | 500 | ND | Tetramethylene Sulfone | 6 | 16 | ND |
| Ethylbenzene | 3 | 7 | ND | Xylenes (o-, m-, and p-) | 73 | 217 | ND |

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Generated By: Ryan Bellone
CCO
Date: 11/09/2022

Tested By: Scott Caudill
Senior Scientist
Date: 10/13/2022