



# Certificate of Analysis



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|---|----------------------------|
| Final Product<br><b>Cannabidiol Isolate</b> | Lot Number<br>HFHC 2018-12 |
|---|----------------------------|

| Test   | Methodology      | Specification             | Test Results (Average, Indicate # of replicates) | Pass / Fail |
|--|------------------|---------------------------|--|-------------|
| Color and Appearance                           | Visual           | White, crystalline powder | Conforms (n=2)                                   | Pass        |
| Cannabidiol Potency (% w/w)                    | HPLC – DAD       | ≥ 98%                     | 100.4 (n=2)                                      | Pass        |
| Residual Isopropyl Alcohol                     | Headspace GC-FID | ≤ 500 ppm                 | <LOQ (n=2)                                       | Pass        |
| Residual Pentane                               | Headspace GC-FID | ≤ 500 ppm                 | 157.9 (n=2)                                      | Pass        |
| Residual Acetone                               | Headspace GC-FID | ≤ 500 ppm                 | <LOQ (n=2)                                       | Pass        |
| Residual Hexane                                | Headspace GC-FID | ≤ 25 ppm                  | <LOQ (n=2)                                       | Pass        |
| THC cannabinoid (% w/w)                        | HPLC – DAD       | ≤ Limit of Detection      | ND (n=2)   | Pass        |
| CBDA cannabinoid (% w/w)                       | HPLC – DAD       | Report                    | ND (n=2)   |             |
| THCA cannabinoid (% w/w)                       | HPLC – DAD       | Report                    | ND (n=2)   |             |
| CBN cannabinoid (% w/w)                        | HPLC – DAD       | Report                    | ND (n=2)   |             |
| CBDV cannabinoid (% w/w)                       | HPLC – DAD       | Report                    | 0.30 (n=2)                                       |             |
| Other cannabinoid (Report Highest, % w/w)      | HPLC – DAD       | Report                    | 0.21 (n=2)                                       |             |
| Total Related Cannabinoids (% w/w)             | HPLC – DAD       | Report                    | 0.56 (n=2)                                       |             |
| Total Cannabinoids (CBD plus total RCs, % w/w) | HPLC – DAD       | Report                    | 101.0 (n=2)                                      |             |

| Results Reviewed by   | Quality Approval   |
|---|--|
| <br>Signature: | <br>Signature: |
| Joshua Cowell<br>Print Name:  | Josh Harrelton<br>Print Name:  |
| 11/26/18<br>Date:   | 11.26.18<br>Date:  |