

Certificate of Analysis

Issued: 2020-03-10

CBD-HQ (cannabidiol hydroxy quinone)

Batch No.: CBD-HQ_2020_001

1 Cannabinoid Spectrum

Instrumentation: LC-MS

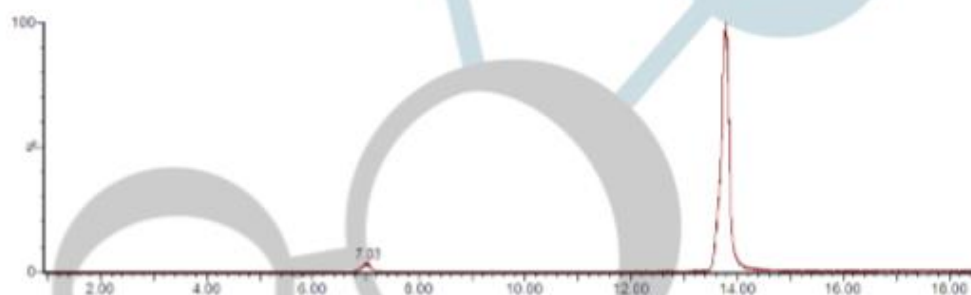
LC: Waters Acquity UPLC H-Class System

MS: Waters Q-TOF Premier PDA

DA: ACQUITY UPLC Photodiode Array (PDA) Detector.

Column: Acquity BEH-C₁₈ 100 x 2,1 mm, particle size 1,7 µm.

The collected data were compared to data collected for certified reference materials (CRM) at known concentrations.



CBD-HQ (cannabidiol hydroxy quinone, HU-331)	98.1 %
CBD (cannabidiol)	0.7%
Impurities (phenolic resin)	1.2%
Δ^8 -THC ((-)-trans- Δ^8 -tetrahydrocannabinol)	Not Detected
Δ^9 -THC ((-)-trans- Δ^9 -tetrahydrocannabinol)	Not Detected

2 Heavy Metal Analysis

ICP, AAS (Hg)

As	Arsenic	< 0.1 ppm
Cd	Cadmium	< 0.1 ppm
Hg	Mercury	< 0.01 ppm
Pb	Lead	< 0.1 ppm

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3 Microbiological Contaminants

Ph EUR

TAMC	Total Aerobic Microorganism Count	≤ 2 000 CFU/g
TYMC	Total Yeast & Mold Count	≤ 200 CFU/g
EC	Escherichia Coli	absent/g

4 Mycotoxin Testing

HPLC/FLD

Total Aflatoxin	< 4 ppb
Total Ochratoxin	< 4 ppb

5 Pesticide Analysis

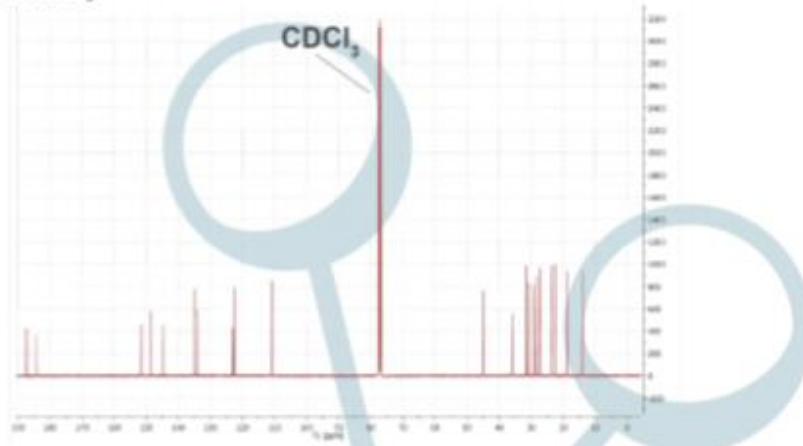
LC/MS/MS

Parameter	CAS	Results [ppb]
Abamectin	71751-41-2	< 0.2
Acequinocyl	57960-19-7	< 0.5
Bifenazate	149877-41-8	< 0.01
Bifenthrin	82657-04-03	< 0.11
Chlormequat chloride	999-81-5	< 0.09
Cyfluthrin	68359-37-5	< 0.5
Daminozide	1596-84-5	< 10
Etoxazole	153233-91-1	< 0.01
Fenoxycarb	72490-01-8	< 0.07
Imazalil	35554-44-0	< 0.03
Imidacloprid	138261-41-3	< 0.06
Myclobutanil	88671-89-0	< 0.03
Paclobutrazol	76738-62-0	< 0.05
Pyrethrin	8003-34-7	< 0.06
Spinosad	168316-95-8	< 0.01
Spiromesifen	283594-90-1	< 0.01
Spirotetramat	203313-25-1	< 0.01
Trifloxystrobin	141517-21-7	< 0.02

6 Other Contaminants

Benzo(a)pyrene	< 2 µg/kg
Total PAHs	< 10 µg/kg
PCBs	≤ 0.75 ng/kg
Dioxins	≤ 0.75 ng/kg

7 NMR ^{13}C
500 MHz Unity INOVA Varian instrument
Sample dissolved in CDCl_3



8 NMR ^1H
500 MHz Unity INOVA Varian instrument
Sample dissolved in CDCl_3

