

# Certificate of Analysis

## Hemp Oil Matrix

**Catalog Number:** C-934  
**Lot Number:** 210427  
**Manufacture Date:** 04/27/2021

**Expiration:** 04/30/2024  
**Martix:** Hemp Oil  
**Hazards:** Irritant

### Cannabinoids

<u>Analyte</u>	<u>CAS</u>	<u>Reporting Limit</u> mg/g	<u>Analytical Result</u> mg/g
Cannabidivarin (CBDV)	24274-48-4	0.078	0.000 ± 0.000
Cannabidiolic Acid (CBDA)	1244-58-2	0.078	0.000 ± 0.000
Cannabigerolic Acid (CBGA)	25555-57-1	0.078	0.000 ± 0.000
Cannabigerol (CBG)	25654-31-1	0.078	0.000 ± 0.000
Cannabidiol (CBD)	13956-29-1	0.078	0.000 ± 0.000
Cannabinol (CBN)	521-35-7	0.078	0.000 ± 0.000
Cannabichromene (CBC)	20675-51-8	0.078	0.000 ± 0.000
Tetrahydrocannabinolic Acid (THCA)	23978-85-0	0.078	0.000 ± 0.000
delta-9-Tetrahydrocannabivarin (THCV)	31262-37-0	0.078	0.000 ± 0.000
Dronabinol (D9-THC)	1972-08-3	0.078	0.000 ± 0.000
delta-8-Tetrahydrocannabinol (D8-THC)	5957-75-5	0.078	0.000 ± 0.000
Cannabidivarinic Acid (CBDVA)	31932-13-5	0.078	0.000 ± 0.000
delta-9-Tetrahydrocannabivarin Acid (THCVA)	39986-26-0	0.078	0.000 ± 0.000
Cannabinolic Acid (CBNA)	2808-39-1	0.078	0.000 ± 0.000
Cannabicyclol (CBL)	21366-63-2	0.078	0.000 ± 0.000
Cannabichromenic Acid (CBCA)	185505-15-1	0.078	0.000 ± 0.000
Cannabicyclolic Acid (CBLA)	40524-99-0	0.078	0.000 ± 0.000

### Terpenes

<u>Analyte</u>	<u>CAS</u>	<u>Reporting Limit</u> mg/g	<u>Analytical Result</u> mg/g
alpha-Pinene	80-56-8	0.967	0.000 ± 0.000
Linalool	78-70-6	0.967	0.000 ± 0.000
Myrcene	123-35-3	0.967	0.000 ± 0.000
d-limonene	5989-27-5	0.967	0.000 ± 0.000
Beta-Caryophyllene	87-44-5	0.967	0.000 ± 0.000
alpha-Humulene	6753-98-6	0.967	0.000 ± 0.000



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Catalog Number: C-934
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Table with columns: Analyte, CAS, Reporting Limit mg/g, Analytical Result mg/g. Lists various terpenes and their limits.

Pesticides

Table with columns: Analyte, CAS, Reporting Limit ug/g, Analytical Result ug/g. Lists various pesticides and their limits.



ISO 9001:2015 UL Registered Firm - Certificate # 10002343 QM15



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Table with columns: Analyte, CAS, Reporting Limit ug/g, Analytical Result ug/g. Lists various pesticides and their detection limits.



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Table with 4 columns: Analyte, CAS, Reporting Limit ug/g, Analytical Result ug/g. Lists various pesticides like Prallethrin, Tilt, Pyrethrins, etc.

Mycotoxins

Table with 4 columns: Analyte, CAS, Reporting Limit ug/g, Analytical Result ug/g. Lists mycotoxins like Ochratoxin A, Aflatoxin B1, etc.

Solvents

Table with 4 columns: Analyte, CAS, Reporting Limit mg/g, Analytical Result mg/g. Lists solvents like 1,2-Dichloroethane, Benzene, Chloroform, etc.



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Ethyl alcohol	64-17-5	0.146	0.000	±	0.000
Ethyl Acetate	141-78-6	0.146	0.000	±	0.000
Diethyl ether	60-29-7	0.146	0.000	±	0.000
n-Heptane (C7)	142-82-5	0.146	0.000	±	0.000
n-Hexane (C6)	110-54-3	0.146	0.000	±	0.000
2-Propanol	67-63-0	0.146	0.000	±	0.000
Methanol	67-56-1	0.146	0.000	±	0.000
Pentane	109-66-0	0.146	0.000	±	0.000
Toluene	108-88-3	0.146	0.000	±	0.000
m-Xylene	108-38-3	0.146	0.000	±	0.000
o-Xylene	95-47-6	0.146	0.000	±	0.000
p-Xylene	106-42-3	0.146	0.000	±	0.000
Xylenes - Total	1330-20-7	0.146	0.000	±	0.000
1,1-Dichloroethylene	75-35-4	0.146	0.000	±	0.000
Cyclohexane	110-82-7	0.146	0.000	±	0.000

\* reference value below reporting limit

This certified reference material (CRM) was manufactured and certified by NSI Lab Solutions according to quality procedures meeting our accreditation requirements of ISO 17034:2016 and ISO/IEC 17025:2017. Our certificates and scopes of accreditation may be viewed at [www.anab.org](http://www.anab.org).

### Packaging, Storage, Instructions For Use

This CRM is packaged in a flame-sealed ampule and must be stored at 15°C to 30°C. To use this CRM, allow it to reach room temperature. Mix it gently by inversion. Inspect for precipitate. If present, sonicate for a few minutes to redissolve. Open the ampule and withdraw an aliquot appropriate for your application.

### Traceability Information

**Analyte Source Materials:** The highest purity analyte source materials are used in the manufacture of this CRM.

**Method:** This CRM was verified Volumetrically/Gravimetrically and Analytically.

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**Balance:** All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

**Thermometer:** All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

**Glassware:** All glassware used in the manufacture of our standards is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

#### Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

#### Homogeneity

This CRM was thoroughly mixed in production and is guaranteed homogenous.

*Ken Grzybowski*

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Ken Grzybowski, Organics Department Manager

*Mark Hammersla*

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Mark Hammersla, President