

Certificate of Analysis

Final Product: Cannabidiol Isolate

Lot Number: IL1905R-026A



MILE HIGH LABS™

Test	Methodology	Specification	Test Results (Average) ¹	Pass/Fail
Color and Appearance	TM-004 (Visual)	White, crystalline powder free of particulates	Conforms	Pass
CBD Identification	TM-001 (DAD Retention Time)	Retention time of the primary peak in sample chromatogram matches that in the analytical reference standard.	Conforms	Pass
	TM-001 (DAD UV Spectrum)	UV Spectrum of the primary peak in sample chromatogram matches that in the analytical reference standard.	Conforms	Pass
CBD Potency (% w/w)	TM-001 (HPLC-DAD)	≥ 98%	100.5	Pass
THC Content (% w/w)	THC	TM-001 (HPLC-DAD)	≤ LOQ ²	Pass
	THCA	TM-001 (HPLC-DAD)	≤ LOQ ²	Pass
Related Cannabinoid Content (%w/w)	CBDA	TM-001 (HPLC-DAD)	Report	N/A
	CBN	TM-001 (HPLC-DAD)	Report	N/A
	CBDV	TM-001 (HPLC-DAD)	Report	0.10
	Other (Highest)	TM-001 (HPLC-DAD)	Report	0.22
	Total	TM-001 (HPLC-DAD)	Report	0.32
Total Cannabinoids (CBD plus total RCs, % w/w)	TM-001 (HPLC-DAD)	Report	100.80	N/A
Residual Solvents (ppm)	Pentane	TM-005 (HS-GC-FID)	≤ 500 ppm	196
	Acetone	TM-005 (HS-GC-FID)	≤ 500 ppm	ND
	Isopropyl Alcohol	TM-005 (HS-GC-FID)	≤ 500 ppm	ND
	Hexane	TM-005 (HS-GC-FID)	≤ 25 ppm	< LOQ
Pesticides (Highest, ppm)	Individual Pesticide Content Test List ²	LC-MS ⁴	≤ LOQ ³	< LOQ
Elemental Impurities (ppm)	Arsenic	ICP-MS ⁴	< 1.5 ppm	< LOQ
	Cadmium	ICP-MS ⁴	< 0.5 ppm	< LOQ
	Lead	ICP-MS ⁴	< 1 ppm	< LOQ
	Mercury	ICP-MS ⁴	< 1.5 ppm	< LOQ

¹Number of replicates: 12

²TM-001 LOQ of 0.05% w/w for related cannabinoids.

³Full list of individual pesticide residues on file, Eurofins LOQ of 0.05 ppm for individual residues.

⁴Contract Testing performed by Eurofins BioDiagnostics.

Prepared by

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Quality Approval

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April 4, 2019

To Whom It May Concern:

Mile High Labs only sources industrial hemp from registered US commercial hemp farmers for the processing of our product, Cannabidiol Isolate, per the USDA's Agriculture Improvement Act of 2018. At no time at any point during the sourcing or process do we use marijuana plants.

Sincerely,

A handwritten signature in blue ink that reads "Laura Eder". The signature is fluid and cursive, with a long horizontal stroke at the end.

Laura Eder
Regulatory Manager

1011 Walnut St. Suite 200
Boulder, Colorado 80302



MILE HIGH LABS

Safety Data Sheet
CANNABIDIOL ISOLATE

SECTION 1: Identification

1.1 Product identifier

Product name Cannabidiol Isolate

1.2 Supplier's details

Name Mile High Labs
Address 697 N. Denver Avenue, Suite 132
Loveland, CO 80537
USA

Telephone (970) 775-7463

1.3 Emergency phone number(s) (970) 776-9194

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2 GHS label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name Cannabidiol Isolate - \geq 98% Cannabidiol (CAS# 13956-29-1)

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Hazardous components

Not a hazardous substance or mixture.

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Move out of dangerous area.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration.
In case of skin contact	Wash off with soap and plenty of water.
In case of eye contact	Flush eyes with water as a precaution.
If swallowed	Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in The labelling (see section 2.2) and/or in section 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

No data available

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

Carbon Dioxides.

Safety Data Sheet

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5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No Data Available.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation and avoid breathing vapors, mist or gas. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventative fire protection. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature-controlled room temperature 68-77°F (20-25°C).

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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Contains no substances with occupational exposure limit values.

8.2 Appropriate engineering controls

General industrial hygiene practice.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full/Splash Contact:

Materials: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Body protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

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Appearance/form	White, Crystalline Powder
Odor	No data available.
Odor threshold	No data available.
pH	No data available.
Melting point/freezing point	Melting point/range: 69°C (156°F)
Initial boiling point and boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Upper/lower flammability or explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility	No data available.
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Light.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

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Hazardous decomposition products formed under fire conditions - Carbon Oxides.
Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Inhalation: no data available

Dermal: no data available

LD50 Intravenous - mouse - 50 mg/kg

Skin corrosion/irritation

No data available.

Serious eye damage/irritation

No data available.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

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No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

RTECS: VH1600000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

SECTION 12: Ecological information

Persistence and degradability

No data available.

Bio accumulative potential

No data available.

Mobility in soil

No data available.

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

Very toxic to aquatic life.

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SECTION 13: Disposal considerations

Disposal of the product

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, state, and national hazardous waste regulations to ensure complete accurate classification.

SECTION 14: Transport information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Chronic Health Hazard

Massachusetts Right to Know

Components Sigma - C7515 Page 6 of 6 No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know

Cannabidiol (CAS-No. 13956-29-1)

Safety Data Sheet

CANNABIDIOL ISOLATE

New Jersey Right to Know

Cannabidiol (CAS-No. 13956-29-1)

HMIS Rating

Health	0
Flammability	0
Physical hazard	0
Personal protection	

NFPA Rating

Health hazard	0
Fire hazard	0
Reactivity hazard	0
Special hazard	

SECTION 16: Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Mile High Labs, Inc. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Mile High Labs, Inc. has been advised of the possibility of such damages.