

# Certificate of Analysis

Final Product: Cannabidiol Isolate

Lot Number: IL1905I-028

**CENSORED**

Test	Methodology	Specification	Test Results (Average) <sup>1</sup>	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%	98	Pass
THC Content (% w/w)	THC	TM-001 (HPLC-DAD)	≤ LOQ <sup>2</sup>	Pass
	THCA	TM-001 (HPLC-DAD)	≤ LOQ <sup>2</sup>	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	0.21
	Other (Highest)	TM-001 (HPLC-DAD)	Report	0.24
	Total	TM-001 (HPLC-DAD)	Report	0.45
Total Cannabinoids (CBD plus total THC, % w/w)	TM-001 (HPLC-DAD)	Report	98.05	N/A
Residual Solvents (ppm)	Pentane	TM-005 (HS-GC-FID)	≤ 500 ppm	Pass
	Acetone	TM-005 (HS-GC-FID)	≤ 500 ppm	Pass
	Isopropyl Alcohol	TM-005 (HS-GC-FID)	≤ 500 ppm	Pass
	Hexane	TM-005 (HS-GC-FID)	≤ 25 ppm	Pass
Pesticides (Highest, ppm)	Individual Pesticide Content Test List <sup>3</sup>	LC-MS <sup>4</sup>	≤ LOQ <sup>3</sup>	Pass
Elemental Impurities (ppm)	Arsenic	ICP-MS <sup>4</sup>	< 1.5 ppm	Pass
	Cadmium	ICP-MS <sup>4</sup>	< 0.5 ppm	Pass
	Lead	ICP-MS <sup>4</sup>	< 1 ppm	Pass
	Mercury	ICP-MS <sup>4</sup>	< 1.5 ppm	Pass

<sup>1</sup>Number of replicates: 3

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

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

<sup>4</sup>Contract Testing performed by Eurofins BioDiagnostics.

## Prepared by

DocuSigned by:



Signer Name: Vanessa Johnson  
 Signing Reason: I am the author of this document  
 Signing Time: 5/31/2019 4:15:12 PM PDT

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## Quality Approval

DocuSigned by:

Signer Name: Josh Harrison  
 Signing Reason: I approve this document  
 Signing Time: 5/31/2019 4:16:13 PM PDT

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# Audit Participation

Completed a



**Silliker Dietary Supplement Good Manufacturing  
Practices and Food Safety Systems Audit**

with a score of

**97.4%**

**August 7, 2018**

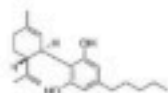
Vice President Technical Services



# Cannabidiol Isolate

## Cannabidiol Info

Structure



Formula

$C_{21}H_{30}O_2$

Molecular Weight

314.46

Melting Point

156°F (69°C)

## Physical Characteristics

Form

Crystalline Powder

Color

White

## Storage

Recommended Temp

68-77°F (20-25°C)

Container

Sealed, aluminum bottles

Shelf Life

6 months from manufacture

**STORE IN A COOL, DRY PLACE AWAY FROM DIRECT SUNLIGHT**

**DO NOT FREEZE**

## Allergen Statement

Does not contain milk, eggs, peanuts, tree nuts, fish, shellfish, soy, or wheat

## Cannabinoid Content (% w/w)

CBD	>98%
THC	0%
CBDA	0%
CBN	0%
CBDV	0%
CBC	0%
Other	0%
Total	>98%

## Residual Solvents

Pentane	<500 ppm
Acetone	<500 ppm
Isopropyl Alcohol	<500 ppm
Hexane	<25 ppm

## Elemental Impurities

Arsenic	<15 ppm
Cadmium	<0.5 ppm
Lead	<1 ppm
Mercury	<25 ppm



**Safety Data Sheet  
CANNABIDIOL ISOLATE**

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**SECTION 1: Identification**

**1.1 Product identifier**

Product name Cannabidiol Isolate

**1.2 Supplier's details**

Name  
Address

Telephone

**1.3 Emergency phone number(s)**

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**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**

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**SECTION 3: Composition/information on ingredients**

**3.1 Substances**

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

**Hazardous components**

Not a hazardous substance or mixture.

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**SECTION 4: First-aid measures**

**4.1 Description of necessary first-aid measures**

General advice Move out of dangerous area.

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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

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## 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.

### 5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

#### Further information

No Data Available.

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## 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.

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## 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

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

Recommended storage temperature: 2-8°C

### Specific end use(s)

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

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

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.

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## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Appearance/form	White, Crystalline Powder
Odor	No data available.
Odor threshold	No data available.

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**CANNABIDIOL ISOLATE**

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.

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**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**

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

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**SECTION 11: Toxicological information**

**Information on toxicological effects**

**Acute toxicity**

Inhalation: no data available

Dermal: no data available

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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**

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

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## SECTION 12: Ecological information

### **Persistence and degradability**

No data available.

### **Bio accumulative potential**

No data available.



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**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.

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**SECTION 14: Transport information**

**DOT (US)**  
Not dangerous goods

**IMDG**  
Not dangerous goods

**IATA**  
Not dangerous goods

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**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)

**New Jersey Right to Know**  
Cannabidiol (CAS-No. 13956-29-1)

**HMIS Rating**

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Health	0
Flammability	0
Physical hazard	0
Personal protection	

<b>NFPA Rating</b>	
Health hazard	0
Fire hazard	0
Reactivity hazard	0
Special hazard	

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**SECTION 16: Further information/disclaimer**

