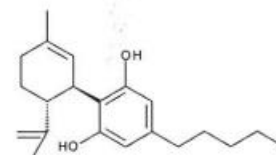


CERTIFICATE OF TESTING



Product Name	Cannabidiol, 99 %
Product Code	SN40I220901
Batch Number	SN40I
CAS Number	13956-29-1
Molecular formula	C ₂₁ H ₃₀ O ₂
Molecular Weight	314.468 g/mol
Date of Analysis	20/10/2022
Date of Manufacture	09/2022
Storage conditions	20 °C ± 5 °C, protected from light and air
Expiry (re-test) date	09/2023

ANALYSIS	ACCEPTANCE CRITERIA	LOQ	RESULT
Appearance	White to yellowish	N/A	White
Appearance (form at RT)	Crystalline powder	N/A	Conforms
Cannabinoids (HPLC, 228 nm)			
- CBC	N/A	0.17 %	ND
- CBD	≥ 99.00 %	0.17 %	99.63 %
- CBDV	N/A	0.17 %	ND
- CBG	N/A	0.17 %	ND
- CBN	N/A	0.17 %	ND
- THCV	N/A	0.17 %	ND
Cannabinoids (LC-MS/MS) ¹			
- Δ8-THC	< 0.005 %	0.0005 %	ND
- Δ9-THC	< 0.005 %	0.0005 %	ND
Residual solvents ¹			
- Σ Acetone, ethanol, ethyl acetate, heptane, pentane, propan-2-ol	≤ 5000 ppm	200 ppm	ND
- Dichloromethane	≤ 600 ppm	0.5 ppm	ND
- Methanol	≤ 3000 ppm	200 ppm	ND
- n-Hexane	≤ 290 ppm	200 ppm	ND

Heavy metals¹



- Arsenic (As)	< 0.1 ppm	0.04 ppm	< 0.04 ppm
- Cadmium (Cd)	< 0.1 ppm	0.01 ppm	< 0.01 ppm
- Lead (Pb)	< 0.1 ppm	0.02 ppm	0.032 ppm
- Mercury (Hg)	< 0.01 ppm	0.01 ppm	< 0.01 ppm
Aflatoxins ^{1,3}			
- B1	≤ 8.98 µg/kg	8.98 µg/kg	ND
- Aflatoxins sum	≤ 20 µg/kg	N/A	ND
- Ochratoxin A	≤ 13.37 µg/kg	13.37 µg/kg	ND
Pesticides ^{1,3}			
- Pesticides	< 0.003 – 0.181 ² mg/kg	0.003 – 0.181 ² mg/kg	ND
Microbiology ¹			
- TAMC	≤ 100 CFU/g	10 CFU/g	15 CFU/g
- TYMC	≤ 100 CFU/g	10 CFU/g	< 10 CFU/g
- Bile-tolerant gram-negative bacteria	ND	Detected / Not Detected	ND
- <i>Candida albicans</i>	ND	Detected / Not Detected	ND
- <i>Escherichia coli</i>	ND	Detected / Not Detected	ND
- <i>Pseudomonas aeruginosa</i>	ND	Detected / Not Detected	ND
- <i>Salmonella</i> spp.	ND	Detected / Not Detected	ND
- <i>Staphylococcus aureus</i>	ND	Detected / Not Detected	ND

¹ – Performed in ISO 17025 certified contract testing laboratory

² – Depends on the pesticide and matrix of the sample

³ – Raw material result

N/A – Not Applicable

ND – Not Detected

Approved by:



Chemist Analyst

2022 10 25

[Signature]
Date, signature

Head Of Quality

2022 10 25

[Signature]
Date, signature

SPECIFICATION

Name of material	Cannabidiol, CBD
Product ID / SKU	SN40I
Origin	Natural
Purity	≥ 99 %
CAS	13956-29-1
Appearance	Crystalline powder
Solubility	Not soluble in water. Soluble in oils and organic solvents
Color	White to yellowish
Long-term storage conditions	20 ± 5 °C, store in a cool, dry place, away from light and air.
Packaging	HDPE container, aluminium container
Shelf life	12 months after production, in unopened original packaging maintained under correct storage conditions.

Material image reference



	ANALYSIS	LOQ	ACCEPTANCE CRITERIA
Cannabinoid profile (HPLC at 228 nm and LCMS)	Cannabidiol (CBD)	0.17 %	≥ 99.0 %
	delta-8-Tetrahydrocannabinol (Δ8-THC)	0.0005 %	≤ 0.005 %
	delta-9-Tetrahydrocannabinol (Δ9-THC)	0.0005 %	≤ 0.005 %
Residual Solvents	∑ Acetone, 1-butanol, 2-butanol, butyl acetate, diethyl ether, ethanol, ethyl acetate, ethyl methyl ketone, methyl acetate, pentane, propan-2-ol, 1-propanol, heptane	1.0 ppm	≤ 5000 ppm
	Cyclohexane	1.0 ppm	≤ 3880 ppm
	Methanol	0.1 ppm	≤ 3000 ppm
	Dichloromethane	1.0 ppm	≤ 600 ppm
	n-hexane	1.0 ppm	≤ 290 ppm
Heavy metals	Arsenic (As)	0.04 ppm	< 0.1 ppm
	Cadmium (Cd)	0.01 ppm	< 0.1 ppm
	Lead (Pb)	0.02 ppm	< 0.1 ppm
	Mercury (Hg)	0.01 ppm	< 0.01 ppm
Microbiology	Total aerobic microbial count (TAMC)	10 CFU/g	≤ 100 CFU/g
	Total yeast/mold count (TYMC)	10 CFU/g	≤ 100 CFU/g
	Bile-tolerant gram-negative bacteria	Detected / Not Detected	Absent/ 1g
	<i>Candida albicans</i>	Detected / Not Detected	Absent/ 1g
	<i>Pseudomonas aeruginosa</i>	Detected / Not Detected	Absent/ 1g
	<i>Staphylococcus aureus</i>	Detected / Not Detected	Absent/ 1g
	<i>Salmonella</i> spp.	Detected / Not Detected	Absent/ 25 g
<i>Escherichia coli</i>	Detected / Not Detected	Absent/ 1 g	



	ANALYSIS	LOQ	ACCEPTANCE CRITERIA
Dioxins, dl PCBs, ndl PCBs	Dioxins	N/A	≤ 0.75 pg/g
	Sum of dlPCBs	N/A	≤ 1.25 pg/g
	Sum of PCB28, 52, 101, 138, 153, 180	N/A	≤ 60 ng/g
Polycyclic Aromatic Hydrocarbons (PAHs)	Chrysene	1,0	< 10 µg/kg
	Benzo(a)anthracene	1,0	< 10 µg/kg
	Benzo(b)fluorathene	1,0	< 10 µg/kg
	Benzo(a)pyrene	1,0	< 10 µg/kg
Mycotoxins	Aflatoxin B1	0.5 µg/kg	≤ 2 µg/kg
	Aflatoxins sum	N/A	≤ 4 µg/kg
	Ochratoxin A	0.5 µg/kg	≤ 2 µg/kg
Pesticides	Pesticide residues	0.001 – 0.01 ² mg/kg	< 0.01 mg/kg

■

