

Test Report

Fera Science Ltd
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United Kingdom



Test Report No.: FR002212_S21-028657v2

Date: 13th July 2022

Customer:	Breathe Life Sciences Ltd.
Analysis:	Suite of 7 cannabinoids by HPLC-UV
Matrix:	CBD Capsules
Samples received:	25 th June 2022

1. BACKGROUND

This report describes the analytical testing of CBD capsules.

The term "CBD" is an acronym for cannabidiol, which is one of several cannabinoids, or chemical compounds, that are found in cannabis and hemp plants.

The sample was analysed for the concentrations of 7 cannabinoids:

- **CBC**, Canabichromene
- **CBD**, Cannabidiol
- **CBDA**, Cannabidiolic acid
- **CBG**, Cannabigerol
- **CBN**, Cannabinol
- **THC**, Tetrahydrocannabinol
- **THCA**, Tetrahydrocannabinolic acid

2. SAMPLE DESCRIPTION

The sample was received at the laboratory in satisfactory condition and stored dark at ambient temperature prior to analysis.

A unique identifying number was assigned to the sample using the Fera laboratory information management system. The relevant sample details are shown in the table below.

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Fera reference	Description	Customer batch reference
S21-028657	20 mg CBD capsules Expiry date: 11/06/2024	210608D

3. SAMPLING AND ANALYSIS

3.1 Suite of 7 cannabinoids by HPLC-UV

The content of 10 capsules was removed from their outer shell and homogenised by stirring in a vial. The sample was then extracted into solvent and diluted. The cannabinoids were determined using HPLC-UV.

Accuracy of the method was assessed by analysing in-house reference material with known concentrations of CBD as well as spiked blank material alongside the sample.

4. RESULTS

4.1 Cannabidiol by HPLC-UV

Sample identification			CBD concentration	
Fera reference	Description	Batch code	mg/kg	%
S21-028657	20 mg CBD capsules Expiry date: 11/06/2024	210608D	60220	6.0

The calculated weight of a capsule is 0.49 g, based on an average of 10 capsules (4.89 g).

Fera reference	Description	Batch code	CBD concentration (mg/capsule)
S21-028657	20 mg CBD capsules Expiry date: 11/06/2024	210608D	29.5

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4.2 Cannabichromene, cannabidiolic acid, cannabigerol, cannabinol, tetrahydrocannabinol and tetrahydrocannabinolic acid

Sample identification		Cannabinoid concentrations (%)					
Fera reference	Description/Batch code	CBC	CBDA	CBG	CBN	THC	THCA
S21-028657	20 mg CBD capsules Expiry date: 11/06/2024	<LOD/ N.D.	0.005	<LOD/ N.D.	<LOD/ N.D.	<LOD	0.004

Note: The limit of detection (LOD) of this method is 0.002 (% w/w) for all cannabinoids

N.D. = not detected



Mark Harrison, Analytical Chemist



Katharina Heinrich, Higher Analytical Chemist

Issuing Officer:	Mark Harrison, Analytical Chemist	Date:	05/07/2022
Countersigning Manager:	Katharina Heinrich, Higher Analytical Chemist	Date:	06/07/2022



Katharina Heinrich, Higher Analytical Chemist

Re-Issuing Officer:	Katharina Heinrich, Higher Analytical Chemist	Date:	13/07/2022
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