

Test Report

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Test Report No.: FR002212_S21-000258

Date: 27th January 2021

Customer:	To whom it may concern NaturalWorks Trading Limited info@naturalworks.com
Analysis:	Cannabinoid screen by LC-MS/MS and Cannabidiol (CBD) by HPLC-UV
Matrix:	CBD products
Received:	8 th of January 2021
Analysed	15 th to 22 nd of January 2021

1. BACKGROUND

This report describes the analytical testing of a CBD sample product.

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 14 cannabinoids:

- **CBC**, Canabichromene
- **CBC-A**, Cannabichromenic acid
- **CBD**, Cannabidiol
- **CBD-A**, Cannabidiolic acid
- **CBDV**, Cannabidivarin
- **CBDV-A**, Cannabidivarinic acid
- **CBG**, Cannabigerol
- **CBG-A**, Cannabigerolic acid
- **CBN**, Cannabinol
- **Δ 8-THC**, Delta-8-Tetrahydrocannabinol
- **Δ 9-THC**, Delta-9-Tetrahydrocannabinol
- **THC-A**, Tetrahydrocannabinolic acid
- **THCV**, Tetrahydrocannabivarin
- **THCV-A**, Tetrahydrocannabivarinic acid

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2. SAMPLE DESCRIPTION

The sample was received at the laboratory in the manufacturers packaging and in satisfactory condition.

The sample was stored in the 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.

Sample information				
Fera reference	Customer reference	Description	Batch/LOT code	Best before
S21-000258	W0122	Naturalworks. Muscle Aid, CBD warming balm	W0122	N/A

3. SAMPLING AND ANALYSIS

3.1 Cannabinol (CBN), delta-9-tetrahydrocannabinol (Δ 9-THC), delta-8-tetrahydrocannabinol (Δ 8-THC), tetrahydrocannabinolic acid (THC-A), tetrahydrocannabivarin (THCV), canabichromene (CBC), cannabichromenic acid (CBC-A), cannabidiolic acid (CBD-A), cannabidivarin (CBDV), cannabidivarinic acid (CBDV-A), cannabigerol (CBG), cannabigerolic acid (CBG-A) and tetrahydrocannabivarinic acid (THCV-A)

The sample was extracted into solvent and diluted before the cannabinoids were determined using LC-MS/MS. Accuracy of the method was assessed by analysing over spiked blank material alongside the samples.

3.2 Cannabidiol (CBD)

The sample was extracted into solvent and diluted before the cannabidiol was determined using LC-UV. Accuracy of the method was assessed by analysing in-house reference materials with known concentrations of CBD.

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4. RESULTS

4.1 Cannabinoid concentrations in mg/kg

Sample identification		Cannabinoid concentration (mg/kg)													
Fera	Customer	CBD	CBC	CBC-A	CBD-A	CBDV	CBDV-A	CBG	CBG-A	CBN	Δ 8-THC	Δ 9-THC	THC-A	THCV	THCV-A
S21-000258	W0122	488	<1.0	<2.5	<2.5	<1.0	<2.5	<20	<2.5	<1.0	<1.0	<1.0	<1.75	<1.0	<2.5

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Issuing Officer:	Mark Harrison, Analytical chemist	Date:	27/01/2021
Countersigning Manager:	Katharina Heinrich, Higher analytical chemist	Date:	27/01/2021

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