

# Test Report: Commercial in Confidence

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Test Report No.: FR002212\_S20017856

Date: 8<sup>th</sup> June 2020

Customer:	Elixinol BV
Analysis 1:	Suite of cannabinoids by LC-MS/MS
Analysis 2:	Cannabidiol (CBD) by HPLC-UV
Matrix:	Liposomes 300 mg Orange
Received:	12 <sup>th</sup> of May 2020
Analysed	15 <sup>th</sup> to 20 <sup>th</sup> of May 2020

## 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
- **Δ8-THC**, Delta-8-Tetrahydrocannabinol
- **Δ9-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 satisfactory condition and stored at ambient temperature prior to analysis.

The sample was received in an amber glass bottle with a screw cap with a fitted pipette.

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
S20-017856	Liposomes 300 mg orange	Liposomes 300 mg orange. 25 mL	PA 20 04 03	04/2022

## 3. SAMPLING AND ANALYSIS

**3.1 Cannabinol (CBN), delta-9-tetrahydrocannabinol ( $\Delta^9$ -THC), delta-8-tetrahydrocannabinol ( $\Delta^8$ -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

**Sample identification:** Liposomes 300 mg orange

**Fera LIMS:** S20-017856

**Weight of bottle content:** 27.5 g

**Total pack size:** 25 mL

Analyte	Results	
	% w/w	Concentration of analyte per tincture (mg)
<b>CBC</b> , Canabichromene	<0.01	<2.8
<b>CBC-A</b> , Cannabichromenic acid	<0.01	<2.8
<b>CBD</b> , Cannabidiol	<b>0.72</b>	<b>197</b>
<b>CBD-A</b> , Cannabidiolic acid	<0.01	<2.8
<b>CBDV</b> , Cannabidivarin	<b>&gt;0.05</b>	<b>&gt;13.8</b>
<b>CBDV-A</b> , Cannabidivarinic acid	<0.01	<2.8
<b>CBG</b> , Cannabigerol	<0.01	<2.8
<b>CBG-A</b> , Cannabigerolic acid	<0.01	<2.8
<b>CBN</b> , Cannabinol	<0.0015	<0.41
<b>Δ8-THC</b> , Delta-8-Tetrahydrocannabinol	<0.0015	<0.41
<b>Δ9-THC</b> , Delta-9-Tetrahydrocannabinol	<0.0015	<0.41
<b>THC-A</b> , Tetrahydrocannabinolic acid	<0.0015	<0.41
<b>THCV</b> , Tetrahydrocannabivarin	<b>0.02</b>	<b>5.7</b>
<b>THCV-A</b> , Tetrahydrocannabivarinic acid	<0.0015	<0.41
<b>Total THC</b> [Δ9-THC + (THC-A x 0.887)]	<0.003	<0.83
<b>Total CBD</b> [CBD + (CBD-A x 0.887)]	<b>0.72</b>	<b>197</b>

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<b>Issuing Officer:</b>	Mark Harrison, Analytical chemist	<b>Date:</b>	04/06/2020
<b>Countersigning Manager:</b>	Rosario Romero, Senior analytical chemist Michael Dickinson, Senior analytical chemist	<b>Date:</b>	08/06/2020

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