

CERTIFICATE OF ANALYSIS

LIPOMED CERTIFICATE OF ANALYSIS NO: QC-COA-303B-B2.1-A-V01

Product name:	Natural CBD Pure API	Chemical name:	Cannabidiol
Chemical formula:	C ₂₁ H ₃₀ O ₂	Molwt:	314.47 g/mol
Art.-No.:	CBD-303-005G	Remarks:	--
Manufacturer:	Lipomed AG	First testing date:	15.04.2021
Lot No.:	303b.1B2.1-A	Retest date:	10/2023
Analysis No.:	19781		

TEST	SPECIFICATION	RESULT
Appearance (Aussehen)	White to yellowish powder	Slightly yellowish powder
Identity (Identität)	IR spectrum identical to reference spectrum	IR identical to reference
Melting point (Schmelzpunkt)	65 to 69°C	68°C
Optical rotation in Ethanol (optische Drehung)	-129.5° to -135.0°	-130.3°
Assay Cannabidiol (Gehalt)	98.0% to 102.0%	99.5%
Specified impurities (Verunreinigungen):		
Δ9-THC	≤0.10%	<0.05%
Δ8-THC	≤0.10%	<0.05%
Cannabidiolic acid	≤0.10%	<0.05%
Cannabinol	≤0.10%	<0.05%
Cannabidivarin	≤0.5%	0.2%
Cannabidibutol	≤0.5%	0.2%
Single unspecified impurities (einzelne unbekannte Verunreinigungen)	≤0.10%	<0.05%
Sum of all unspecified impurities (Summe unbekannte Verunreinigungen)	≤0.5%	<0.05%
Sum of all impurities (Summe aller Verunreinigungen)	≤1.0%	0.4%
Sulfated ash (Sulfatasche)	≤0.1%	<0.1% m/m
Residual solvents (Restlösemittel):		
Ethanol	≤5000 ppm	<5000 ppm
Triethylamine	≤5000 ppm	<1000 ppm
Heptane	≤5000 ppm	<5000 ppm

2

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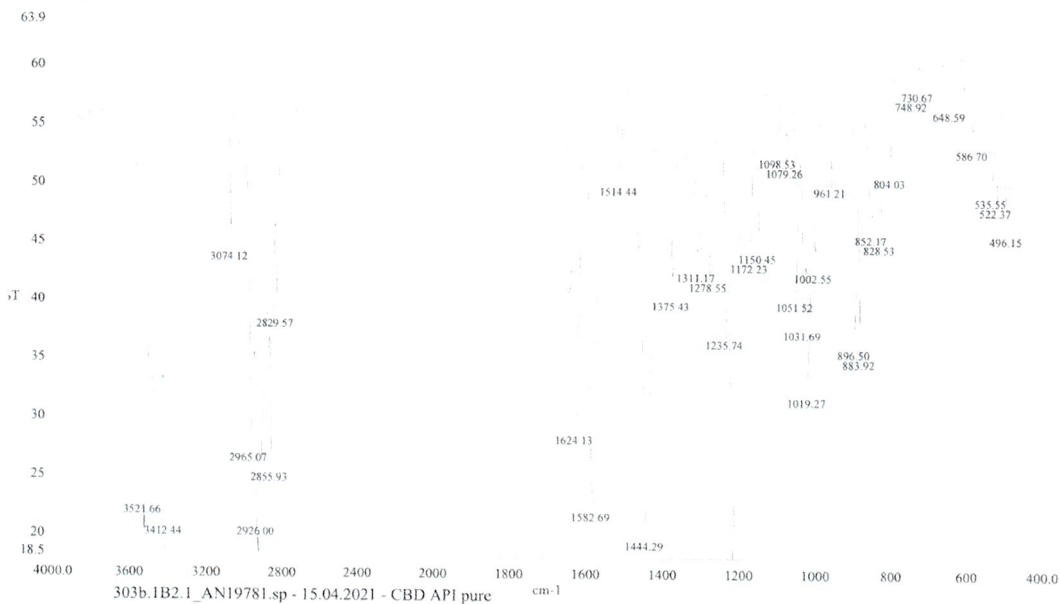
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TEST	SPECIFICATION	RESULT
Microbiological quality (mikrobiologische Qualität):		
Total aerobic microbial count	≤10 ³ CFU/g	<50 CFU/g
Total combined yeasts and moulds count	≤10 ² CFU/g	<50 CFU/g
Specified microorganisms E. coli	Absent in 1g	conforms
Pesticides (Pestizide) *	conforms	conforms
Aflatoxin B₁ *	≤2 µg/kg	≤1 µg/kg
Ochratoxin A *	≤80 µg/kg	≤5 µg/kg

* Determined on previous synthesis steps

FTIR spectrum of **Natural CBD Pure API**:



2

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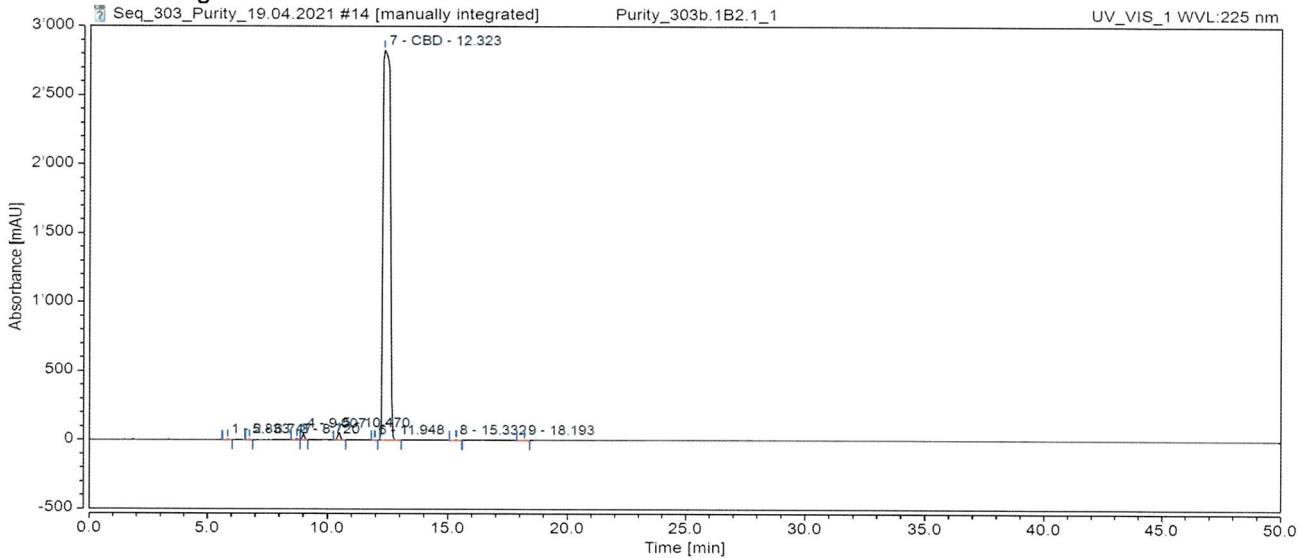


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HPLC chromatogram of Natural CBD Pure API:



Quality Control approved: J. Wenzel

J. Wenzel

Date sign: Arlesheim,

06.10.2021

I hereby certify that the above information is authentic and accurate. This batch of product has been manufactured, including packaging/labelling and quality control in full compliance with the GMP requirements of the local Regulatory Authority and within the specifications. The packaging and analysis records were reviewed and found to be in compliance with GMP.

Qualified Person: *D. FROCHTBERGER*

Date sign: Arlesheim, *15.11.2021*

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