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GERMANY

Att: Yasmin Kristensen

<b>Received on</b>	03-02-2021	<b>Report code</b>	AR-21-DH-054744-03
<b>Analysis start</b>	03-02-2021	<b>EOL batch</b>	EOL 10517-785068
<b>Analysis completed</b>	08-03-2021	<b>Batch code</b>	EUDKHL-01451143
<b>Date Printed</b>	08-03-2021	<b>Sample code</b>	588-2021-00042115
<i>This analysis certificate supersedes all previous versions</i>			
<b>Sample description §</b>	500MG CBD Drops		
<b>Sample marking §</b>	CopenhagenCBD 500mg CBD		
<b>Product type §</b>	CBD Olie		
<b>Report comment</b>	Version 2: Recalculation Version 3: LOD added		

Test	Parameter	Result	Unit	U(%)	Est. value
<b>Pesticides according to ph. Eur. 2.8.13 in essential oils</b>					
2) SPE41	ASU L 00.00-34:2010-09 / GC-ECD Screened pesticides	Not Detected			
2) SPE42	ASU L 00.00-34:2010-09 / GC-FPD Screened pesticides	Not Detected			
2) SPE43	ASU L 00.00-34:2010-09 / GC-MS Screened pesticides	Not Detected			
2) ZPDX5	EN 12396-3:2000-10 / Spectrophotometry (UV/VIS) Dithiocarbamates (as CS2)	< 0.5	mg/kg		
1) FX021	LC-MS Tetrahydrocannabinol (THC) <i>Test comment</i> LOD: 0,03 % (%w/w)	<0,03	%		
1) FX036	LC-MS Cannabidiol (CBD)	6,1	%		50 mg/1 ml

# CERTIFICATE OF ANALYSIS

Test	Parameter	Result	Unit	U(%)	Est. value
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<L.Q. / <LOQ	:Below limit of quantification	ND / N.D.	:Not detected	<	:Less than/below
<L.D. / <LOD	:Below limit of detection	<i>x.dupl</i>	: <i>x determination</i>	>	:Greater than/above

- 1) Eurofins Forensics Belgium (Brugge): ISO/IEC 17025 BELAC 482-TEST
- 2) Eurofins Dr. Specht Laboratorien (HH): DIN EN ISO/IEC 17025:2018 DAkkS D-PL-14198-01-00

  
Analytical Service Manager Zohrah Habassy

## Eurofins Steins Laboratorium A/S

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**Any query regarding this certificate of analysis shall be addressed to Eurofins Steins + 45 7022 4286 or e-mail [food-kemi@eurofins.dk](mailto:food-kemi@eurofins.dk) regarding chemistry tests or [food-mikrobiologi@eurofins.dk](mailto:food-mikrobiologi@eurofins.dk) regarding microbiology tests.**

Results are only applicable for the sample as received. Results are stated "content in the sample", unless otherwise indicated. U(%): Expanded uncertainty of measurement (coverage factor k=2). Uncertainties regarding microbiological analyses can be requested by contacting the microbiological department. Information marked with (\$) is provided by the customer or enclosed/stated on the sample at reception and is the customers responsibility, including when it can affect the validity of the results. Results may not be reproduced except in full without written permission from Eurofins Steins. For all tests Eurofins Steins General Terms and Conditions of Sale applies; full text on [www.eurofins.dk](http://www.eurofins.dk)

AR-21-DH-054744-03  
AR1 V: 3.6

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**Legend**

CAS	The CAS Registry Number is a unique identifier assigned by the Chemical Abstracts Service to every chemical substance.
LOQ	Limit of quantification.
RL	Reporting limit.
LOD	Limit of detection.

PSP57-1		Pesticides according to ph. Eur. 2.8.13 in essential oils (ISO)	
Sampling / shipping requirements	Optimal quantity	200 g	Minimal quantity 150 g
<b>Content</b> (see appendix)	<a href="#">SPE41-2</a> (XB)	Pesticides Ph.Eur. Oils OC/PY	GC-ECD
	<a href="#">SPE42-2</a> (XB)	Pesticides Ph.Eur. Oils OP	GC-FPD
	<a href="#">SPE43-1</a> (XB)	Pesticides Ph.Eur. Oils MS	GC-MS
	<a href="#">ZPDX5-1</a> (XB)	Dithiocarbamate Ph.Eur	Spectrophotometry (UV/VIS)

## Appendix

SPE41-2 (XB)		Pesticides Ph.Eur. Oils OC/PY			
<b>Aim</b>	The substances mentioned within table 2.8.13 Ph.Eur. and USP 34 Art. 561 Table 5 and being analysable with Multi Residue Method DFG S19 are analysed within one test.				
<b>Method</b>	<p>The sample material is extracted with acetone. Before the extraction water is added to the sample material in an amount that takes full account of the natural water content of the sample so that during the extraction the acetone/water ratio remains constant at 2/1 (v:v) .</p> <p>For the liquid/liquid partition, sodium chloride and a mixture of cyclohexane and ethyl acetate are added to the homogenate, the mixture intensively mixed again and then allowed to stand for some time so that the phases can separate. A measured aliquot of the organic phase is dried with sodium sulfate and then reduced in volume. Equal volumes of ethyl acetate and cyclohexane are added in succession to the residue. The remaining water is removed with a mixture of sodium sulfate and sodium chloride and the solution is filtered. The extract is cleaned up by gel permeation chromatography (module GPC).</p> <p>For Pesticides detected with GC-FPD or GC-MSD, the GPC-eluate is used directly.</p> <p>For a gas chromatographic determination using an ECD, the GPC eluate is cleaned up further on a small silica gel column. . For this, the concentrated GPC eluate is added onto the small silica gel column and is eluted with solvents or solvent mixtures of increasing polarity. We are usually using the silica gel eluates 1+2.</p>				
<b>Applied on</b>	Essential oils, Plant oil or fat				
<b>Laboratory</b>	Eurofins Dr. Specht Laboratorien (HH)		(XB) DIN EN ISO/IEC 17025:2018 DAkkS D-PL-14198-01-00		
<b>Parameters</b>	<b>Parameter</b>	<b>CAS</b>	<b>LOQ</b>	<b>RL</b>	<b>LOD</b>
	Aldrin	309-00-2	0.02 mg/kg	0.02 mg/kg	
	Dieldrin	60-57-1	0.02 mg/kg	0.02 mg/kg	
	Chlordane, cis-	5103-71-9	0.02 mg/kg	0.02 mg/kg	
	Chlordane, trans-	5103-74-2	0.02 mg/kg	0.02 mg/kg	
	Chlordane, oxy-	27304-13-8	0.02 mg/kg	0.02 mg/kg	
	Chlorthal-dimethyl	1861-32-1	0.02 mg/kg	0.02 mg/kg	
	Cyfluthrin	68359-37-5	0.1 mg/kg	0.1 mg/kg	
	Cyhalothrin, lambda-(incl. Cyhalothrin, gamma-)	91465-08-6	0.1 mg/kg	0.1 mg/kg	
	Cypermethrin	52315-07-8	0.1 mg/kg	0.1 mg/kg	
	DDD, o,p-	53-19-0	0.01 mg/kg	0.01 mg/kg	
	DDD, p,p'-	72-54-8	0.01 mg/kg	0.01 mg/kg	
	DDE, o,p-	3424-82-6	0.01 mg/kg	0.01 mg/kg	
	DDE, p,p'-	72-55-9	0.01 mg/kg	0.01 mg/kg	
	DDT, o,p'-	789-02-6	0.01 mg/kg	0.01 mg/kg	
	DDT, p,p'-	50-29-3	0.01 mg/kg	0.01 mg/kg	
	DDT (sum)				
	Dicofol, o,p-	10606-46-9	0.05 mg/kg	0.05 mg/kg	
	Dicofol, p,p-	115-32-2	0.05 mg/kg	0.05 mg/kg	
	Deltamethrin	52918-63-5	0.1 mg/kg	0.1 mg/kg	
	Endosulfan, alpha-	959-98-8	0.02 mg/kg	0.02 mg/kg	
	Endosulfan, beta-	33213-65-9	0.02 mg/kg	0.02 mg/kg	
	Endosulfan sulphate	1031-07-8	0.04 mg/kg	0.04 mg/kg	
	Endrin	72-20-8	0.04 mg/kg	0.04 mg/kg	
	Fenpropathrin	39515-41-8	0.1 mg/kg	0.1 mg/kg	
	Fenvalerate (RR-/SS-Isomers)		0.05 mg/kg	0.05 mg/kg	
	Fenvalerate (RS-/SR-Isomers)		0.05 mg/kg	0.05 mg/kg	
	Flucythrinate	70124-77-5	0.1 mg/kg	0.1 mg/kg	
	HCH, alpha-	319-84-6	0.02 mg/kg	0.02 mg/kg	
	HCH, beta-	319-85-7	0.02 mg/kg	0.02 mg/kg	
	HCH, delta-	319-86-8	0.02 mg/kg	0.02 mg/kg	
	HCH, epsilon-	6108-10-7	0.02 mg/kg	0.02 mg/kg	
	Heptachlor	76-44-8	0.02 mg/kg	0.02 mg/kg	
	Heptachlor epoxide, cis-	1024-57-3	0.02 mg/kg	0.02 mg/kg	
	Heptachlor epoxide, trans-	28044-83-9	0.02 mg/kg	0.02 mg/kg	

Hexachlorobenzene (HCB)	118-74-1	0.02 mg/kg	0.02 mg/kg
Lindane (gamma-HCH)	58-89-9	0.02 mg/kg	0.02 mg/kg
Methoxychlor	72-43-5	0.04 mg/kg	0.04 mg/kg
Mirex	2385-85-5	0.02 mg/kg	0.02 mg/kg
Pendimethalin	40487-42-1	0.04 mg/kg	0.04 mg/kg
Pentachloranisole	1825-21-4	0.02 mg/kg	0.02 mg/kg
Permethrin	52645-53-1	0.1 mg/kg	0.1 mg/kg
Quintozene	82-68-8	0.02 mg/kg	0.02 mg/kg
Pentachloroaniline	527-20-8	0.02 mg/kg	0.02 mg/kg
Pentachlorothioanisole	1825-19-0	0.02 mg/kg	0.02 mg/kg
S 421	127-90-2	0.02 mg/kg	0.02 mg/kg
tau-Fluvalinate	102851-06-9	0.1 mg/kg	0.1 mg/kg
Tecnazene	117-18-0	0.02 mg/kg	0.02 mg/kg
Tetradifon	116-29-0	0.02 mg/kg	0.02 mg/kg

**SPE42-2 (XB) Pesticides Ph.Eur. Oils OP**

<b>Aim</b>	The substances mentioned within table 2.8.13 Ph.Eur. and USP 34 Art. 561 Table 5 and being analysable with Multi Residue Method DFG S19 are analysed within one test.
<b>Method</b>	<p>The sample material is extracted with acetone. Before the extraction water is added to the sample material in an amount that takes full account of the natural water content of the sample so that during the extraction the acetone/water ratio remains constant at 2/1 (v:v) .</p> <p>For the liquid/liquid partition, sodium chloride and a mixture of cyclohexane and ethyl acetate are added to the homogenate, the mixture intensively mixed again and then allowed to stand for some time so that the phases can separate. A measured aliquot of the organic phase is dried with sodium sulfate and then reduced in volume. Equal volumes of ethyl acetate and cyclohexane are added in succession to the residue. The remaining water is removed with a mixture of sodium sulfate and sodium chloride and the solution is filtered. The extract is cleaned up by gel permeation chromatography (module GPC).</p> <p>For Pesticides detected with GC-FPD or GC-MSD, the GPC-eluate is used directly.</p> <p>For a gas chromatographic determination using an ECD, the GPC eluate is cleaned up further on a small silica gel column. . For this, the concentrated GPC eluate is added onto the small silica gel column and is eluted with solvents or solvent mixtures of increasing polarity. We are usually using the silica gel eluates 1+2.</p>

<b>Applied on</b>	Essential oils, Plant oil or fat
<b>Laboratory</b>	Eurofins Dr. Specht Laboratorien (HH) (XB) DIN EN ISO/IEC 17025:2018 DAkkS D-PL-14198-01-00

Parameters	Parameter	CAS	LOQ	RL	LOD
	Acephate	30560-19-1	0.2 mg/kg	0.2 mg/kg	
	Azinphos-ethyl	2642-71-9	0.3 mg/kg	0.3 mg/kg	
	Azinphos-methyl	86-50-0	0.3 mg/kg	0.3 mg/kg	
	Bromophos-ethyl	4824-78-6	0.1 mg/kg	0.1 mg/kg	
	Bromophos-methyl	2104-96-3	0.1 mg/kg	0.1 mg/kg	
	Chlorfenvinphos	470-90-6	0.1 mg/kg	0.1 mg/kg	
	Chlorpyrifos (-ethyl)	2921-88-2	0.1 mg/kg	0.1 mg/kg	
	Chlorpyrifos-methyl	5598-13-0	0.1 mg/kg	0.1 mg/kg	
	Diazinon	333-41-5	0.1 mg/kg	0.1 mg/kg	
	Dichlorvos	62-73-7	0.1 mg/kg	0.1 mg/kg	
	Dimethoate	60-51-5	0.1 mg/kg	0.1 mg/kg	
	Omethoate	1113-02-6	0.1 mg/kg	0.1 mg/kg	
	Ethion	563-12-2	0.1 mg/kg	0.1 mg/kg	
	Etrimfos	38260-54-7	0.1 mg/kg	0.1 mg/kg	
	Fenchlorphos	299-84-3	0.1 mg/kg	0.1 mg/kg	
	Fenchlorphos oxon	3983-45-7	0.1 mg/kg	0.1 mg/kg	
	Fenitrothion	122-14-5	0.1 mg/kg	0.1 mg/kg	
	Fensulfothion	115-90-2	0.1 mg/kg	0.1 mg/kg	
	Fensulfothion-sulfone	14255-72-2	0.1 mg/kg	0.1 mg/kg	
	Fensulfothion-oxon-sulfone	6132-17-8	0.1 mg/kg	0.1 mg/kg	
	Fensulfothion-oxon-sulfoxide	6552-21-2	0.1 mg/kg	0.1 mg/kg	
	Fenthion	55-38-9	0.1 mg/kg	0.1 mg/kg	
	Fenthion-oxon	6552-12-1	0.1 mg/kg	0.1 mg/kg	
	Fenthion-oxon-sulfone	14086-35-2	0.1 mg/kg	0.1 mg/kg	

Fenthion-oxon-sulfoxide	6552-13-2	0.1 mg/kg	0.1 mg/kg
Fenthion-sulfone	3761-42-0	0.1 mg/kg	0.1 mg/kg
Fenthion-sulfoxide	3761-41-9	0.1 mg/kg	0.1 mg/kg
Fonofos	944-22-9	0.1 mg/kg	0.1 mg/kg
Malathion	121-75-5	0.1 mg/kg	0.1 mg/kg
Malaoxon	1634-78-2	0.1 mg/kg	0.1 mg/kg
Mecarbam	2595-54-2	0.1 mg/kg	0.1 mg/kg
Methacrifos	62610-77-9	0.1 mg/kg	0.1 mg/kg
Methamidophos	10265-92-6	0.1 mg/kg	0.1 mg/kg
Methidathion	950-37-8	0.1 mg/kg	0.1 mg/kg
Monocrotophos	6923-22-4	0.1 mg/kg	0.1 mg/kg
Parathion	56-38-2	0.1 mg/kg	0.1 mg/kg
Paraoxon-ethyl	311-45-5	0.1 mg/kg	0.1 mg/kg
Parathion-methyl	298-00-0	0.1 mg/kg	0.1 mg/kg
Paraoxon-methyl	950-35-6	0.1 mg/kg	0.1 mg/kg
Phosalone	2310-17-0	0.3 mg/kg	0.3 mg/kg
Phosmet	732-11-6	0.1 mg/kg	0.1 mg/kg
Pirimiphos-ethyl	23505-41-1	0.1 mg/kg	0.1 mg/kg
Pirimiphos-methyl	29232-93-7	0.1 mg/kg	0.1 mg/kg
N-Desethyl-pirimiphos-methyl	67018-59-1	0.1 mg/kg	0.1 mg/kg
Profenofos	41198-08-7	0.1 mg/kg	0.1 mg/kg
Prothiofos	34643-46-4	0.1 mg/kg	0.1 mg/kg
Quinalphos	13593-03-8	0.1 mg/kg	0.1 mg/kg

**SPE43-1 (XB) Pesticides Ph.Eur. Oils MS**

<b>Aim</b>	The substances mentioned within table 2.8.13 Ph.Eur. and USP 34 Art. 561 Table 5 and being analysable with Multi Residue Method DFG S19 are analysed within one test.				
<b>Method</b>	<p>The sample material is extracted with acetone. Before the extraction water is added to the sample material in an amount that takes full account of the natural water content of the sample so that during the extraction the acetone/water ratio remains constant at 2/1 (v:v) .</p> <p>For the liquid/liquid partition, sodium chloride and a mixture of cyclohexane and ethyl acetate are added to the homogenate, the mixture intensively mixed again and then allowed to stand for some time so that the phases can separate. A measured aliquot of the organic phase is dried with sodium sulfate and then reduced in volume. Equal volumes of ethyl acetate and cyclohexane are added in succession to the residue. The remaining water is removed with a mixture of sodium sulfate and sodium chloride and the solution is filtered. The extract is cleaned up by gel permeation chromatography (module GPC).</p> <p>For Pesticides detected with GC-FPD or GC-MSD, the GPC-eluate is used directly.</p> <p>For a gas chromatographic determination using an ECD, the GPC eluate is cleaned up further on a small silica gel column. . For this, the concentrated GPC eluate is added onto the small silica gel column and is eluted with solvents or solvent mixtures of increasing polarity. We are usually using the silica gel eluates 1+2.</p>				
<b>Applied on</b>	Essential oils, Plant oil or fat				
<b>Laboratory</b>	Eurofins Dr. Specht Laboratorien (HH)		(XB) DIN EN ISO/IEC 17025:2018 DAkkS D-PL-14198-01-00		
<b>Parameters</b>	<b>Parameter</b>	<b>CAS</b>	<b>LOQ</b>	<b>RL</b>	<b>LOD</b>
	Alachlor	15972-60-8	0.4 mg/kg	0.4 mg/kg	
	Bromopropylate	18181-80-1	0.2 mg/kg	0.2 mg/kg	
	Dichlofluanid	1085-98-9	0.4 mg/kg	0.4 mg/kg	
	Piperonyl butoxide	51-03-6	0.2 mg/kg	0.2 mg/kg	
	Procymidone	32809-16-8	0.2 mg/kg	0.2 mg/kg	
	Pyrethrins	8003-34-7	1 mg/kg	1 mg/kg	
	Vinclozolin	50471-44-8	0.2 mg/kg	0.2 mg/kg	

**ZPDX5-1 (XB) Dithiocarbamate Ph.Eur**

<b>Aim</b>	This test quantifies all dithiocarbamates without distinguishing each molecule. Results are expressed in carbon disulfide (CS <sub>2</sub> ).
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<b>Method</b>	Hydrolysis with stannous chloride and hydrochloric acid to CS <sub>2</sub> and conversion into a Xanthogenate complex. (Sample weight: 100 - 200 g); UV detection at 272, 302 and 332 nm				
<b>Applied on</b>	Essential oils, Plant oil or fat				
<b>Laboratory</b>	Eurofins Dr. Specht Laboratorien (HH)		(XB) DIN EN ISO/IEC 17025:2018 DAkkS D-PL-14198-01-00		
<b>Parameters</b>	<b>Parameter</b>	<b>CAS</b>	<b>LOQ</b>	<b>RL</b>	<b>LOD</b>
	Dithiocarbamates (as CS <sub>2</sub> )		0.5 mg/kg	0.5 mg/kg	