

Scope and methodology of research

Package	Parameter	Unit	Method status*	Research Method
HHC	Sum of HHC, Hexahydrocannabinol- S isomer (9s-HHC), Hexahydrocannabinol- R isomer (9r-HHC)	%(m/m)	NA	Own analytical protocol
HHCP	Hexahydrocannabiprole	%(m/m)	NA	Own analytical protocol
HHCO	Hexahydrocannabinol acetate	%(m/m)	NA	Own analytical protocol
THCP	Tetrahydrocannabiprolol	%(m/m)	NA	Own analytical protocol
THCO	Octan tetrahydrokannabinolu	%(m/m)	NA	Own analytical protocol
H4-CBD	Tetrahydrocannabinol	%(m/m)	NA	Own analytical protocol
S	suma CBD i CBDA, suma Δ9-THC i Δ9-THCA	%(m/m)	NA	PB-CL-2:2019 wyd.2 z 02.06.2020/GC
M	CBD, CBDA, Δ9-THC, Δ9-THCA, total CBD i CBDA, total Δ9-THC i Δ9-THCA	%(m/m)	NA	PB-CL-1:2021 wyd.1 z 01.07.2021/HPLC
aM	CBD, CBDA, Δ9-THC, Δ9-THCA, total CBD i CBDA, total Δ9-THC i Δ9-THCA	%(m/m)	A	PB-CL-1:2021 wyd.2 z 31.08.2023/HPLC
L	CBD, CBDA, CBDV, CBG, CBGA, CBC, CBN, Δ9-THC, Δ9-THCA, suma CBD i CBDA, total Δ9-THC i Δ9-THCA total cannabinoids	%(m/m)	NA	PB-CL-1:2021 wyd.1 z 01.07.2021/HPLC
aL	CBD, CBDA, CBDV, CBG, CBGA, CBC, CBN, Δ9-THC, Δ9-THCA, suma CBD i CBDA, total Δ9-THC i Δ9-THCA total cannabinoids	%(m/m)	A	PB-CL-1:2021 wyd.2 z 31.08.2023/HPLC
XL	CBD, CBDA, CBDV, CBG, CBGA, CBC, CBN, Δ9-THC, Δ9-THCA, suma CBD i CBDA, total Δ9-THC i Δ9-THCA, CBL, Δ8-THC, THCV; total cannabinoids	%(m/m)	NA	PB-CL-1:2021 wyd.1 z 01.07.2021/HPLC
aXL	A: CBD, CBDA, CBDV, CBG, CBGA, CBC, CBN, Δ9-THC, Δ9-THCA, sum of CBD and CBDA, sum of Δ9-THC and Δ9-THCA, CBL, Δ8-THC, THCV; total cannabinoids	%(m/m)	A	PB-CL-1:2021 wyd.2 z 31.08.2023/HPLC
B	CBD, CBDA or CBG, CBGA and Δ9-THC, Δ9-THCA; acetone, methanol, ethanol, hexane, isopropanol, heptane, pentane	%(m/m) mg/kg	NA	PB-CL-1:2021 wyd.1 z 01.07.2021/HPLC PB-CL-6:2019 wyd. 4 z dnia 13.10.2021
G	CBD, Δ9-THC	%(m/m)	NA	PB-CL-1:2021 wyd.1 z 01.07.2021/HPLC
aG	CBD, Δ9-THC	%(m/m)	A	PB-CL-1:2021 wyd.2 z 31.08.2023/HPLC
Trace-THC	delta-9-THC at mg/kg (ppm), in line with EU Regulation 2022/1393 amending Regulation 1881/2006	mg/kg	NA	PB-CL-1:2021 wyd.1 z 01.07.2021/HPLC
Pharma DE	CBD, CBDA, CBN, delta-9-THC, delta-9-THCA oraz delta-8-THC	%(m/m)	NA	Farmakopea Niemiecka DAB 2018 HPLC-UV
X	Pb, Cu, Cr, Cd, Fe, Ni	mg/kg	NA	PB-CL-5:2019 wyd.3 z 20.05.2021/ICP PN-EN ISO 11885:2009 (E) PN-EN 13805:2014 (E)
R	Pb, Cu, Cr, Cd, Fe, Ni, Ag, Al, Sn, Mn, V, Zn, Hg, As	mg/kg	NA	PB-CL-5:2019 wyd.3 z 20.05.2021/ICP PN-EN ISO 11885:2009 (E) PN-EN 13805:2014 (E)
J	(14 terpenes) beta-Pinene, beta-Caryophyllene, Phytol, Limonene, Geraniol, (1S)-(-)-Camphor, Terpinolene, beta-Eudesmol, (+)-Borneol, cis-Nerolidol, (-)-alpha-Terpineol, (1S)-(+)-3-Carene, Linalool, p-Cymene, Myrcene	mg/kg	NA	PB-CL-7:2019 wyd.2 z 02.06.2020/GCMS
T	(30 terpenes) alpha-Pinene, Camphene, beta-Pinene, 3-Carene, alpha-Terpinenol, (R)-(+)-Limonene, p-Cymene, gamma-Terpinene, Terpinolene, Linalool, L-(-)-Fenchone, Fenchol, Isoborneol, DL-Menthol, (+)- Borneol, Camphor, (-)-alpha-Terpineol, (+/-)-B-Citronellol, Geraniol, (R)-(+)-Pulegone, alpha-Cedrene, beta-Caryophyllene, Geranyl, alpha-Humulene, Nerolidol, (+)-Cedrol, beta-Eudesmol, alpha-Bisabolol; Phytol, Myrcene	mg/kg	NA	PB-CL-7:2019 wyd.2 z 02.06.2020/GCMS
K	acetone, methanol, ethanol, hexane, isopropanol, heptane, pentane (in the range of 10-1000 mg/kg)	mg/kg	NA	PB-CL-6:2019 wyd. 4 z dnia 13.10.2021
P	(49 pesticides): Biphenyl; 2,6-Dichlorobenzonitrile; 3,4 dichloroaniline; Methacryfos; Ethalfuralin; Trifluralin; Benfluralin; Tetrahydrophthalimide; Tetrachloronitrobenzene; 2,3,5,6-tetrachloroaniline; Profluralin; Diphenylamine; Sulfotepp; Fluchloralin; Terbufos; Pentachloronitrobenzene; Dichloran; Pentachlorobenzonitrile; Prodiamine; Pentachloroaniline; Chlorothalonil; Fenchlorphos (Ronnel); Tolclofos methyl; Isopropalin; Malathion; Dichlofluand; Bromophos methyl; Pendifmethalin; Fenthion; Bromophos-ethyl; Chlorfenvinphos; Tolyfluand; Bromfenvinphos methyl; Prothiofos; Oxyfluorfen; Tetrachlorvinphos; Bromfenvinphos ethyl; Profenofos; Fenamiphos; Iodofenphos; Chlorthiophos; Nitrofen; Ethion; Sulprofos; Carbophenothion; Nitralin; Edifenphos; Leptophos; Coumaphos	mg/kg	NA	PB-CL-4:2019 wyd.2 z 04.06.2020 /GCMS
μ-O	Microbiological package for oils: Number of coagulase-positive staphylococci (Staphylococcus aureus and other species); Presence of Salmonella; Number of coliform bacteria; Number of molds	CFU /g CFU /10 g	NA/P	PN-ISO 4832:2007 PN-EN ISO 6579-1:2017-04+A1:2020-09 PN-EN ISO 6888-2:2001+A1:2004 PN-ISO 7954:1999 (W)
μ-S	Microbiological package for dried hemp: Number of β-glucuronidase-positive Escherichia coli; Number of coagulase-positive staphylococci (Staphylococcus aureus and other species); Number of yeasts and molds; Presence of Salmonella 10g (N)	CFU/g CFU/10 g	NA/P	PN-ISO 16649-2:2004 PN-EN ISO 6888-2:2001+A1:2004 PN-ISO 7954:1999 (W) PN-EN ISO 6579-1:2017-04+A1:2020-09
μ-I	Microbiological package for isolate, extract, dietary supplement: Presence of Salmonella bacilli; Number of coliform bacteria; Number of yeasts and molds; Number of coagulase-positive staphylococci (Staphylococcus aureus and other species)	CFU /g CFU /10 g	NA/P	PN-EN ISO 6579-1:2017-04+A1:2020-09 PN-ISO 4832:2007 PN-ISO 7954:1999 (W) PN-EN ISO 6888-2:2001+A1:2004 PN-ISO 16649-2:2004 PN-EN ISO 21528-02:2017-08 PN-EN ISO 11290-2:2017-07
N-b	Oil Nutrients-Basic: Energy (kJ/100g) by calculation; Energy (kJ/100g); Dry Matter at 105°C; Total Carbohydrates; Fat; Protein; Total Ash	kJ/100 g kcal/100 g % (m/m)	NA/P	Rozporządzenie (UE) nr 1169/2011 (Dz. U. L 304 z 22.11.2011 z późn. zm.) Rozporządzenie (UE) nr 1169/2011 (Dz. U. L 304 z 22.11.2011 z późn. zm.) Własna procedury badawcze
N-a	Oil nutrients-extended Energy (kJ/100g) from calculation; Energy (kJ/100g); Dry matter @ 105°C; Total carbohydrates including sugars, fiber; Fat including saturated fatty acids; Protein; Total ash; salt.	kJ/100 g kcal/100 g % (m/m)	NA/P	Rozporządzenie (UE) nr 1169/2011 (Dz. U. L 304 z 22.11.2011 z późn. zm.) Rozporządzenie (UE) nr 1169/2011 (Dz. U. L 304 z 22.11.2011 z późn. zm.) PN-EN ISO 17294-2:2016-11; PB-DAZ-02 Własna procedury badawcze
A	Aflatoxins - Aflatoxin B1; Aflatoxin B2; Aflatoxin G1; Aflatoxin G2; Total aflatoxins	μg/kg	NA/P	Własne procedury badawcze
O	Fatty acid profile with a focus on omega-3 and omega-6 unsaturated fatty acids	%m/m	NA	PB-CL-8:2019 wyd.1 z 26.08.2020/GC
V	Vitamins: Vitamin B1, Vitamin B2, Vitamin B6, Vitamin B12, Vitamin C	mg/kg	NA	PB-CL-9:2019 wyd.1 z 26.08.2020/LCMS

*A – metoda akredytowana, NA – metoda nieakredytowana, P- metoda zleczana zewnętrznemu dostawcy usług (SGS, AB 313)

D	Oil density: a designation necessary to express the cannabinoid content in mg per volume of the package	g/ml	NA	PN-EN ISO 12185:2002 z 23.12.2002
Mela	Melatonin content	mg/kg	NA	PB-CL-10:2022 wyd.1 z 21.04.2022/HPLC
W	Polycyclic aromatic hydrocarbons: chrysene, benzo[a]pyrene, benzo[a]anthracene, enzo[b]fluoranthene	µg/kg	NA	PB-CL-8:2021 wyd. 1 z 20.01.2021/GCMS