



EA MLA Signatory
Český institut pro akreditaci, o.p.s.
Olšanská 54/3, 130 00 Praha 3

issues

according to section 16 of Act No. 22/1997 Coll., on technical requirements for products, as amended

CERTIFICATE OF ACCREDITATION

No. 502/2019

E&H services a.s.
with registered office Budějovická 618/53, Krč, 140 00 Praha 4, Company Registration
No. 24718602

to the Testing Laboratory No. 1665
Testing Laboratory

Scope of accreditation:

Special organic analysis of water, extracts, solid samples, biological material, feed, air, food and food supplements, cosmetics; analysis of organic compounds from passive samplers; sampling of water by passive samplers (SPMD, POCIS, DGT) and sampling of solid materials to the extent as specified in the appendix to this Certificate.

This Certificate of Accreditation is a proof of Accreditation issued on the basis of assessment of fulfillment of the accreditation criteria in accordance with

ČSN EN ISO/IEC 17025:2005

In its activities performed within the scope and for the period of validity of this Certificate, the Body is entitled to refer to this Certificate, provided that the accreditation is not suspended and the Body meets the specified accreditation requirements in accordance with the relevant regulations applicable to the activity of an accredited Conformity Assessment Body.

This Certificate of Accreditation replaces, to the full extent, Certificate No.: 150/2019 of 2. 4. 2019, or any administrative acts building upon it.

The Certificate of Accreditation is valid until: **22. 3. 2022**

Prague: 3. 10. 2019



Jiří Růžička
Director
Czech Accreditation Institute
Public Service Company

**The Appendix is an integral part of
Certificate of Accreditation No. 502/2019 of 03/10 2019**

Accredited entity according to ČSN EN ISO/IEC 17025:2005:

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Letter E at the ordinal number identifies the tests performed by the Laboratory in accordance with the requirements for periodic emission measurement according to ČSN P CEN/TS 15675:2009.

The Laboratory is qualified to update normative documents identifying the test procedures.

The Laboratory has a flexible scope of accreditation permitted as detailed in the Annex.

Updated list of activities provided within the flexible scope of accreditation is available in the laboratory (from the Testing Laboratory Manager).

The Laboratory provides expert opinions and interprets test results.

The Laboratory is qualified to carry out independent sampling.

Tests:

Ordinal number ¹⁾	Test procedure/ method name	Test procedure/ method identification	Tested object
1	Determination of alkylphenols, alkylphenoethoxylates, bisphenol A and phthalates by gas chromatography (MS) and the sum of alkylphenols, alkylphenoethoxylates and phthalates by calculation from measured values ^(*)	SOP 1.00 (ČSN EN ISO 18857-1, ČSN EN ISO 18857-2, ČSN EN ISO 18856)	Water, extracts, dialyzates from SPMD, sea water
2	Determination of alkylphenols and alkylphenoethoxylates by gas chromatography (MS) and the sum of alkylphenols and alkylphenoethoxylates by calculation from measured values ^(*)	SOP 1.01 (ČSN EN ISO 18857-1, ČSN EN ISO 18857-2)	Solid samples
3	Reserved		
4	Determination of chloroalkanes (C10-C13) by gas chromatography (MS) ¹⁾	SOP 2.00 ^(**)	Water, extracts, dialyzates from SPMD, sea water
5	Reserved		
6	Determination of chlorobenzenes, organochlorinated pesticides (OCP) and musk substances by gas chromatography (MS) and the sum of OCP and chlorobenzenes by calculation from measured values ^(*)	SOP 3.00 (ČSN EN ISO 6468)	Water, extracts, dialyzates from SPMD
7	Determination of chlorobenzenes and organochlorinated pesticides (OCP) by gas chromatography (MS) and the sum of OCP and chlorobenzenes by calculation from measured values ^(*)	SOP 3.01 (ČSN EN ISO 6468)	Solid samples

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Ordinal number ¹⁾	Test procedure/ method name	Test procedure/ method identification	Tested object
8	Determination of chlorobenzenes and organochlorinated pesticides (OCP) by gas chromatography (MS) and the sum of OCP and chlorobenzenes by calculation from measured values ^(*)	SOP 3.02 (ČSN EN ISO 6468)	Biological material
9	Determination of chlorobenzenes by gas chromatography (MS) and the sum of chlorobenzenes by calculation from measured values ^(*)	SOP 3.04 (ČSN EN ISO 6468)	Air
10	Determination of chlorophenols by gas chromatography (MS) and the sum of chlorophenols by calculation from measured values ^(*)	SOP 4.00 (ČSN EN 12673)	Water, extracts, dialyzates from SPMD
11	Determination of chlorophenols by gas chromatography (MS) and the sum of chlorophenols by calculation from measured values ^(*)	SOP 4.01 (ČSN EN 12673, EPA 8041.A)	Solid samples
12-14	Reserved		
15	Determination of polyaromatic hydrocarbons (PAH) by liquid chromatography (FLUD) and the sum of PAH by calculation from measured values ^(*)	SOP 5.00 (ČSN EN ISO 17993)	Water, extracts, dialyzates from SPMD
16	Determination of polyaromatic hydrocarbons (PAH) by liquid chromatography (FLUD) and the sum of PAH by calculation from measured values ^(*)	SOP 5.01 (ČSN EN ISO 17993)	Solid samples
17	Determination of polyaromatic hydrocarbons (PAH) by liquid chromatography (FLUD) and the sum of PAH by calculation from measured values ^(*)	SOP 5.02 (ČSN EN ISO 15753, ČSN 56 0623)	Biological material
E18	Determination of polyaromatic hydrocarbons (PAH) by liquid chromatography (FLUD) and the sum of PAH by calculation from measured values ^(*)	SOP 5.04 (EPA TO 13, STN ISO 11338-2)	Emission, air
19	Determination of polyaromatic hydrocarbons (PAH) by gas chromatography (MS) and the sum of PAH by calculation from measured values ^(*)	SOP 6.00 (ČSN 75 7554)	Drinking, underground and surface water, dialyzates from SPMD

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Ordinal number ¹⁾	Test procedure/ method name	Test procedure/ method identification	Tested object
E20	Determination of polyaromatic hydrocarbons (PAH) by gas chromatography (MS) and the sum of PAH by calculation from measured values ^(*)	SOP 6.04 (ČSN 75 7554, EPA TO 13, STN ISO 11338-2)	Emission, air
21	Determination of polychlorinated dibenzo – p-dioxines and furanes (PCDD/F), specified congeners of polychlorinated biphenyls (PCB) and specified congeners of polybrominated diphenylethers (PBDE) by gas chromatography (MS/MS, HRMS) and the sum of PCDD/F, PCB and PBDE by calculation from measured values ^(*)	SOP 7.00 (EPA 1613)	Water, extracts, dialyzates from SPMD
22	Determination of polychlorinated dibenzo – p-dioxines and furanes (PCDD/F), specified congeners of polychlorinated biphenyls (PCB) and specified congeners of polybrominated diphenylethers (PBDE) by gas chromatography (MS/MS, HRMS) and the sum of PCDD/F, PCB and PBDE by calculation from measured values ^(*)	SOP 7.01 (EPA 1613)	Solid samples
23	Determination of polychlorinated dibenzo – p-dioxines and furanes (PCDD/F), specified congeners of polychlorinated biphenyls (PCB) and specified congeners of polybrominated diphenylethers (PBDE) by gas chromatography (MS/MS, HRMS) and the sum of PCDD/F, PCB and PBDE by calculation from measured values ^(*)	SOP 7.02 (EPA 1613)	Biological material
24	Determination of polychlorinated dibenzo – p-dioxines and furanes (PCDD/F), specified congeners of polychlorinated biphenyls (PCB) and specified congeners of polybrominated diphenylethers (PBDE) by gas chromatography (MS/MS, HRMS) and the sum of PCDD/F, PCB and PBDE by calculation from measured values ^(*)	SOP 7.03 (EPA 1613)	Food, feedstuffs
E25	Determination of polychlorinated dibenzo – p-dioxines and furanes (PCDD/F), specified congeners of polychlorinated biphenyls (PCB) and specified congeners of polybrominated diphenylethers (PBDE) by gas chromatography (MS/MS, HRMS) and the sum of PCDD/F, PCB and PBDE by calculation from measured values ^(*)	SOP 7.04 (ČSN EN 1948-2, ČSN EN 1948-3, ČSN EN 1948-4)	Air, emission

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Ordinal number ¹⁾	Test procedure/ method name	Test procedure/ method identification	Tested object
26	Determination of polychlorinated biphenyls (PCB) by gas chromatography (ECD) and the sum of PCB by calculation from measured values ^(*)	SOP 8.00 (ČSN EN ISO 6468)	Water
27	Determination of hydrocarbons C ₁₀ to C ₄₀ by gas chromatography (FID)	SOP 10.00 (ČSN EN ISO 9377-2)	Water, dialyzates from SPMD
28	Determination of specified polar compounds by liquid chromatography (MS/MS) ^(*)	SOP 11.00 ^(**)	Water: drinking, bottled, surface, underground, eluates from POCIS
29	Determination of specified polar compounds by liquid chromatography (MS/MS) ^(*)	SOP 11.02 ^(**)	Biological material
30	Determination of specified pesticides by gas chromatography (MS) ^(*)	SOP 12.00 ^(**)	Water, dialyzates from SPMD
31	Determination of dry matter by gravimetry and water content (moisture content) by calculation from measured values	SOP 13.00 (ČSN EN 14346, part A)	Solid samples, feedstuffs, biological materials
32	Determination of fat by gravimetry	SOP 14.00 ^(**)	Foodstuffs
33	Determination of cannabinoids by gas chromatography (MS) ^(*)	SOP 15.02 ^(**)	Vegetable materials
34	Determination of cannabinoids by liquid chromatography (MS) ^(*)	SOP 16.02 ^(**)	Vegetable materials
35	Determination of cannabinoids by liquid chromatography (MS) ^(*)	SOP 16.03 ^(**)	Food and food supplements
36	Determination of cannabinoids by liquid chromatography (MS) ^(*)	SOP 16.05 ^(**)	Cosmetics

¹⁾ Asterisk at the ordinal number identifies the tests carried out outside/also outside the laboratory premises.

* Asterisk at the test procedure/method name identifies the tests for which the range of determination is specified at the end of this Appendix.

** Asterisks at the Test procedure/method identification identify the tests where implementing regulations are specified at the end of this Appendix.



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Annex:

Flexible scope of accreditation

Ordinal numbers of tests
1,2,4,6-11,15-33

The Laboratory is allowed to modify the test methods listed in the Annex within the specified scope of accreditation provided the measuring principle is observed.

The flexible approach to the scope of accreditation cannot be applied to the tests not included in the Annex.

Sampling:

Ordinal number	Sampling procedure name	Sampling procedure identification	Sampled object
1	Sampling with semipermeable membrane devices (SPMD), passive samplers POCIS and DGT	SOP 1.00 VZ(**)	Drinking, surface, underground and waste water
2	Manual sampling of waste and solid samples	SOP 2.00 VZ (**)	Soils, sands, sludge, waste



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Explanations of used terms

Water	Drinking, hot, bottled, surface, underground, bathing and waste water
Extracts	Aqueous extracts of wastes according to valid law
Solid samples	Soils, sands, sediments, waste, sludge
Air	Outdoor air, indoor air, working air
Emissions	Waste gas containing pollutants released in a controlled manner or leaking into atmosphere from pollution sources (the object of the test is an emission sample on a filter, sorbed in an absorption solution and/or in a solid sorbent, according to the nature of the substance)
Dializates from SPMD Eluates from POCIS, DGT	Passive samplers – Systems working on the basis of passive diffusion of determined substances into a suitable medium (absorbent, adsorbent) – SPMD, POCIS and DGT
Biological material	Animal and vegetable materials

List of used abbreviations:

SOP	Standard operating procedure
SPMD	Semipermeable Membrane Device
POCIS	Polar Organic Chemical Integrative Sampler
DGT	Difussive Gradient Thin Films
ECD	Electron Capture Detector
FID	Flame Ionisation Detector
MS	Mass spectrometry
FLUD	Fluorescence Detector
MS/MS	Tandem Mass Detector
HRMS	High Resolution Mass Spectrometry



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Range of determined parameters:

Ord. no.	Test procedure/method name – Range of parameters
1	Alkylphenols – 4-t-octylphenol (identical with technical 4-octylphenol) , 4-n-octylphenol, 4-n-nonylphenol, 4-nonylphenol (technical mixture), nonylphenol (identical with 4-nonylphenol), 4-nonylphenolmonoethoxylate, 4-nonylphenoldiethoxylate, bisphenol A Phthalates – di-n-butylphthalate, butylbenzylphthalate, bis(2-ethylhexyl)phthalate (BEHP, DEHP), di-n-oktylphthalate, diisononylphthalate, diisodecylphthalate, n-octyl-n-decylphthalate, di-decylphthalate
2	4-t-octylphenol (identical with technical 4-octylphenol) , 4-n-octylphenol, 4-n-nonylphenol, 4-nonylphenol (technical mixture), nonylphenol (identical with 4-nonylphenol), 4-nonylphenolmonoethoxylate, 4-nonylphenoldiethoxylate.
6	Organochlorinated pesticides (OCP): alphaHCH, betaHCH, gammaHCH (lindane), delta HCH, HCB (hexachlorobenzene), Aldrin, Dieldrin, Endrin, Endrinaldehide, Endrinetone, Heptachlor, trans-Chlordan, cis-Chlordan, Nonachlor, Metoxychlor, opDDT, ppDDT, opDDD, ppDDD, opDDE, ppDDE, Endosulfane I (alpha) and II (beta), Endosulfansulfate, trans-Heptachloroepoxide, cis-Heptachloroepoxide, Isodrin, Chlorpyrifos, Trifluralin, Tetradifon, Clorpyralid, Picloram, Iprodione, Octachlorostyrene, Dichlobenil Chlorobenzenes – Tetrachlorobenzenes, pentachlorobenzenes, hexachlorobenzenes Musk substances - Galaxolide (HHCb), tonalide (AHTN), musk xylene, musk ketone
7	Organochlorinated pesticides (OCP): alpha HCH, beta HCH, gamma HCH (lindane), delta HCH, HCB, Aldrin, Dieldrin, Endrin, Endrinaldehide, Endrinetone, Heptachlor, trans-Chlordane, cis-Chlordane, Nonachlor, Methoxychlor, opDDT, ppDDT, opDDD, ppDDD, opDDE, ppDDE, Endosulfane I and II, Endosulfansulfate, trans-Heptachloroepoxide, Isodrin, cis-Heptachloroepoxide, Chlorpyrifos, Trifluralin, Tetradifon Chlorobenzenes – Tetrachlorobenzenes, pentachlorobenzenes, hexachlorobenzenes
8	Organochlorinated pesticides (OCP): alphaHCH, betaHCH, gammaHCH (lindane), delta HCH, HCB, Aldrin, Dieldrin, Endrin, Endrinaldehide, Endrinetone, Heptachlor, trans-Chlordan, cis-Chlordan, Nonachlor, Methoxychlor, opDDT, ppDDT, opDDD, ppDDD, opDDE, ppDDE, Endosulfane I and II, Endosulfansulfate, trans-Heptachloroepoxide, Isodrin, cis-Heptachloroepoxide, Chlorpyrifos, Trifluralin, Tetradifon, HCBd (hexachlorobutadien), dicofol Chlorobenzenes – Tetrachlorobenzenes, pentachlorobenzenes, hexachlorobenzenes
9	Tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene
10	Mono-, di-, tri-, tetrachlorophenols, pentachlorophenol, 1-naphthol (α -naphthol), 4-chloro-2-methylphenol
11-14	Tetrachlorophenols, pentachlorophenols
15-20	Naphthalene, acenaphthene, acenaphthalene ^{19,20} , phenanthrene, anthracene, fluorene, fluoranthene, pyrene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, indeno(123-cd)pyrene.
21-22	dibenzo-p-dioxines and -furanes (PCDD/F) 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8,9-OCDD, sum of TCDD, sum of PeCDD, sum of HxCDD, sum of HpCDD 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, 1,2,3,4,6,7,8,9-OCDF, sum of TCDF, sum of PCDF, sum of HxCDF, sum of HpCDF polychlorinated biphenyls (PCB) trichlorinated, tetrachlorinated, pentachlorinated, hexachlorinated, heptachlorinated, octachlorinated, nonachlorinated a decachlorinated PCB congeners polybrominated diphenylethers (PBDE)

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Ord. no.	Test procedure/method name – Range of parameters
	PBDE15, PBDE17, PBDE28, PBDE47, PBDE49, PBDE66, PBDE71, PBDE77, PBDE99, PBDE100, PBDE138, PBDE153, PBDE154, PBDE156, PBDE183, PBDE206, PBDE207, PBDE209
23-25	<p>dibenzo-p-dioxines and -furans (PCDD/F) 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8,9-OCDD, sum of TCDD, sum of PeCDD, sum of HxCDD, sum of HpCDD</p> <p>2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, 1,2,3,4,6,7,8,9-OCDF, sum of TCDF, sum of PCDF, sum of HxCDF, sum of HpCDF</p> <p>polychlorinated biphenyls (PCB) trichlorinated, tetrachlorinated, pentachlorinated, hexachlorinated, heptachlorinated, octachlorinated, nonachlorinated a decachlorinated PCB congeners</p> <p>polybrominated diphenylethers (PBDE) PBDE15, PBDE17, PBDE28, PBDE47, PBDE49, PBDE66, PBDE71, PBDE77, PBDE99, PBDE100, PBDE138, PBDE153, PBDE154, PBDE156, PBDE183, PBDE206, PBDE207, PBDE209</p>
26	PCB 28, 52, 101, 118, 138, 153, 180
28	<p>Pesticides: 2,4,5-T (2,4,5-trichlorophenoxyacetic acid), 2,4-DP(Dichlorprop), 2,4-D (2,4-dichlorophenoxyacetic acid), 2,6-dichlorobenzamide, 2-amino-N-(isopropyl)benzamide (Antranilic acid isopropylamide), 2-chloro-2,6-diethylacetanilide, 3,4-dichloranilin (DCA), 3,4-dichlorophenyl urea (DCPU), 3-hydroxycarbofuran, 3-chlor-4-methylanilin, Acetochlor, Acetochlor ESA, Acetochlor OA, Alachlor, Alachlor OA, Alachlor ESA, Aminopyralid, Atraton, Atrazine, Atrazine-desethyl, Atrazine-desethyl-desisopropyl (diaminoatrazine), Atrazine-desisopropyl, Atrazine-hydroxy, Azoxystrobin, Bentazone, Bentazone methyl, Bromacil, Bromoxynil, Carbendazim, Carbofuran, Clomazone, Clopyralid, Cyanazin, Cyproconazole, Desmetryn, Diazinon, Dicamba, Dichlobenil, Dichlormid, Dimethachlor, Dimethoat, Dimethomorph, Diuron, Diuron desmethyl (1-(3,4-dichlorophenyl)-3-methylurea, DCPMU), Epoxiconazole, Ethofumesate, Fenarimol, Fenhexamid, Fipronil, Florasulam, Fluazifop-P, Fluazifop-p-butyl, Flusilazole, Foramsulfuron, Hexazinon, Hexabromocyclododecane (HBCDD-alpha,beta and gamma isomers), Chlorthaliprol, Chlorbromuron, Chloridazon, Chloridazon desphenyl, Chlorotoluron, Chlorsulfuron, Chlorotoluron desmethyl (1-(3-chloro-4-isopropylphenyl)-3-methylurea), Imazamethabenz methyl, Imazamox, Imazethapyr, Imidacloprid, Iprodione, Isoproturon, Isoproturon monodesmethyl (1-(4-isopropylphenyl)-3-methylurea), Isoproturon desmethyl (1-(4-isopropylphenyl)urea), Kresoxim-methyl, Lenacil, Linuron, MCPA, MCPB, MCPP (Mecoprop), Metalaxyl, Metamitron, Metazachlor, Metazachlor ESA, Metazachlor OA, Metconazole, Methabenzthiazuron, Methamidophos, Methidathion, Methoxyfenozide, Metobromuron, Metolachlor, Metolachlor ESA, Metolachlor OA, Metoxuron, Metribuzin, Metribuzin-desamino, Metribuzin-desamino diketo, Metribuzin-diketo, Metsulfuron methyl, Monolinuron, Napropamide, Nicosulfuron, Phorate, Phosalone, Phosphamidon, Picloram, Pirimicarb, p-isopropylanilin (4-isopropylanilin), Prometryn, Propachlor, Propachlor ESA, Propachlor OA, Propiconazole, Propoxycarbazon sodium, Propyzamide (Pronamide), Pyrimethanil, Pyridate, Rimsulfuron, Simazin, Simazin-2-hydroxy, Sulfosulfuron, Tebuconazole, Terbutylazine, Terbutylazine-desethyl, Terbutylazine-desethyl-2-hydroxy, Terbutylazine-hydroxy, Terbutryn, Thiamethoxam, Thifensulfuron-methyl, Thiophanate-methyl, Triadimefon, Triadimenol, Tri-allate, Triasulfuron, Tribenuron-methyl, Triforine, Triticonazole, sum of pesticides by calculation from measured values</p> <p>Pharmaceuticals: Sulfometoxazol, Sulfamethazin, Trimetoprim, Diaverdin, Diclofenac, Carbamazepin, Sulfapyridine, Sulfamethoxyipyridazine, Sulfachloropyridazine, sum of pharmaceuticals by</p>

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Ord. no.	Test procedure/method name – Range of parameters
	calculation from measured values PFOC – PFOA (perfluoro-n-octanoic acid), PFNA (perfluoro-n-nonanoic acid), PFOS (sodium perfluoro-1-octanesulfonate), PFHxS (Perfluoro-hexansulfonate), FOSA (Fluoroalkyl Sulfonamid), N-MeFOSA (N-methylperfluoro-1-octanesulfonamide), sum of PFOC by calculation from measured values
29	PFOA (perfluoro-n-octanoic acid), PFNA (perfluoro-n-nonanoic acid), PFOS (sodium perfluoro-1-octanesulfonate), PFHxS (Perfluoro-hexansulfonate), FOSA (Fluoroalkyl Sulfonamid), N-MeFOSA (N-methylperfluoro-1-octanesulfonamide), sum of PFOC by calculation from measured values, hexabromocyclododecane (HBCDD-alpha,beta and gamma isomers), sum of HBCDD by calculation from measured values
30	Dimethipin, SWEP (methyl-(3,4-dichlorophenyl)carbamate)
33-36	Cannabinoids: CBD, CBDA, THC, THCA, CBG, CBGA, CBN

List of implementing regulations

Ord. no.	Test procedure/method identification
4	Water quality – Determination of short-chain polychlorinated alkanes (SCCPs) in water – Method using gas chromatography-mass spectrometry (GC-MS) and negative-ion chemical ionization (NCI), ISO 12010
28,29	B.Kmellár et al./J.Chromatogr. A 1215 (2008) 37-50, I.Ferrer, E.M.Thurman/J.Chromatogr.A 1175 (2007) 24-37 G.-F.Pang et al./J.Chromatogr.A 1125 (2006) 1-30 Chunang Gu et al, Simultaneous Analysis of 250 Pesticides Residues in Plants by LC/MS/MS using 500 Selected Reaction Monitoring (SRM) Transitions Thermo Scientific Materials David R. Baker, Chris Titman, Alan J. Barnes, Neil J. Loftus, Alexander Mastoroudes, Simon Hird: Multi-Residue Analysis of 210 Pesticides in Food Samples by Triple Quadrupole UHPLC-MS/MS ČSN ISO 25101
30	Hans-Joachim Huebschmann, Joachim Gummersbach, Thermo Fisher Scientific, Dreieich, Germany, Nicole Rueckert, Johann Kirchner, Elmar Häfner, Phytolab GmbH & Co KG, Vestenbergsgreuth, Germany: Multi-Residue Pesticide Analysis in Herbal Products Using Accelerated Solvent Extraction with a Triple Quadrupole GC-MS/MS System
32	ČSN 57 0146, ČSN EN ISO 3727-1, ČSN EN ISO 3727-2, ČSN EN ISO 3727-3, ČSN 58 8786, ČSN EN ISO 17189, ČSN ISO 1443, ČSN EN ISO 1211, ČSN 57 0104, part 4, ČSN EN ISO 7208, ČSN EN ISO 2450, ČSN EN ISO 1736, ČSN EN ISO 1737, ČSN 46 7092-7, ČSN 56 0116-6, ČSN 56 0512-18, ČSN ISO 7302, ČSN 56 0130-6, ČSN 56 0146-part 4, ČSN 58 0703-6, ČSN 58 0120, ČSN EN ISO 1735, ČSN EN ISO 1854, ČSN 57 2301, ČSN 58 0170, ČSN 56 0290-6, ČSN 57 0105, part 4, ČSN EN ISO 8381, ČSN ISO 8262-1, ČSN ISO 8262-2, ČSN ISO 8262-3, ČSN EN ISO 7328, ČSN 56 0176, part 1, ČSN EN ISO 3947, ČSN ISO 5543, ČSN 57 0107- p.15
33	Billets, S.; El-Ferally, F., Fetterman S. P., Turner, C.E. (1976): Constituents of cannabis sativa L. XII—mass spectral fragmentation patterns for some. Cannabinoid acid as their TMS derivatives, Organic Mass Spectrometry, pages 741–751, July 1976

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Certificate of Accreditation No. 502/2019 of 03/10 2019**

Accredited entity according to ČSN EN ISO/IEC 17025:2005:

E&H services, a.s.
Testing Laboratory
Dobrá 240, 739 51 Dobrá

Ord. no.	Test procedure/method identification
34	A.A.M. Stolker, J. van Schoonhoven, A.J. de Vries, I. Bobeldijk-Pastorova, W.H.J. Vaes, R. van den Berg (2004): Determination of cannabinoids in cannabis products using liquid chromatography–ion trap mass spectrometry, Journal of Chromatography A, 1058 (2004) 143–151, Roth, N., Moosmann, B. and Auwärter, V. (2013), Development and validation of an LC-MS/MS method for quantification of Δ^9 -tetrahydrocannabinolic acid A (THCA-A), THC, CBN and CBD in hair. J. Mass Spectrom., 48: 227–233
35	A.A.M. Stolker, J. van Schoonhoven, A.J. de Vries, I. Bobeldijk-Pastorova, W.H.J. Vaes, R. van den Berg (2004): Determination of cannabinoids in cannabis products using liquid chromatography–ion trap mass spectrometry, Journal of Chromatography A, 1058 (2004) 143–151, Roth, N., Moosmann, B. and Auwärter, V. (2013), Development and validation of an LC-MS/MS method for quantification of Δ^9 -tetrahydrocannabinolic acid A (THCA-A), THC, CBN and CBD in hair. J. Mass Spectrom., 48: 227–233, Pellegrini M., Marchei E., et al (2004), A rapid and simple procedure for the determination of cannabinoids in hemp food products by gas chromatography–mass spectrometry, Journal of Pharmaceutical and Biomedical Analysis 36(2005) 939-946, Koch J., delta9 –THC stimulates food intake in Lewis rats Effects on chow, high-fat and sweet high-fat diets, 2000, Pharmacology, Biochemistry and Behavior 68 (2001) 539-543
36	A.A.M. Stolker, J. van Schoonhoven, A.J. de Vries, I. Bobeldijk-Pastorova, W.H.J. Vaes, R. van den Berg (2004): Determination of cannabinoids in cannabis products using liquid chromatography–ion trap mass spectrometry, Journal of Chromatography A, 1058 (2004) 143–151, Roth, N., Moosmann, B. and Auwärter, V. (2013), Development and validation of an LC-MS/MS method for quantification of Δ^9 -tetrahydrocannabinolic acid A (THCA-A), THC, CBN and CBD in hair. J. Mass Spectrom., 48: 227–233, Jurado C., et al (1997), Influence of the cosmetic treatment of hair on drug testing, Int. J. legal Med. 110:159-163

Ord. no.	Sampling procedure identification
1	ČSN EN ISO 5667-23
2	ČSN EN ISO 5667–1, ČSN EN ISO 5667–3, ČSN EN ISO 5667–13, ČSN ISO 5667–14, ČSN EN ISO 5667–15, TNI CEN/TR 15310-1, TNI CEN/TR 15310-2, TNI CEN/TR 15310-3, TNI CEN/TR 15310-4, TNI CEN/TR 15310-5, ČSN 015110, ČSN 015111, ČSN 015112, ČSN EN 14899, ČSN EN ISO 19458, ČSN EN ISO 3170, MoE Guideline for waste sampling 2008, 101s

