

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

Výzkumný ústav organických syntéz a.s.
ANALYTIKA
č.p. 296, 533 54 Rybitví

The Laboratory is qualified to update standards 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 at the Laboratory from the Quality Manager.

The Laboratory provides expert opinions and interprets test results.

Tests:

Ordinal number ¹⁾	Test procedure/ method name	Test procedure/ method identification	Tested object
1	Determination of polyaromatic hydrocarbons by GC-MS method ¹⁾	ZP 1	Surface and waste water.
2	Determination of nitrocompounds by GC-MS method ²⁾	ZP 3	Surface and waste water
3	Determination of volatile organic compounds by GC-MS method ³⁾	ZP 4	Surface and waste water
4	Determination of phenolic compounds by GC-MS ⁴⁾	ZP 6	Surface and waste water
5	Determination of polychlorinated biphenyls by GC-MS method. Congener analysis ⁵⁾	ZP 7	Surface and waste water
6	Determination of polychlorinated biphenyls by GC-MS method. Congener analysis ⁵⁾	ZP 8	Soils and solid waste
7	Determination of polychlorinated biphenyls by GC-MS method using internal marked standards ⁶⁾	ZP 10	Chemical products
8	Determination of specified aromatic amino compounds by GC-MS method ⁷⁾	ZP 11	Surface and waste water
9	Determination of amide value of pectins	ZP 91	pectins



**The Appendix is an integral part of
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Ordinal number ¹⁾	Test procedure/ method name	Test procedure/ method identification	Tested object
10	Determination of mercury by single purpose mercury analyzer	ZP 16 A (TNV 757440)	Water ⁸⁾ and aqueous extracts
11	Determination of mercury by single purpose mercury analyzer	ZP 16 B	Solid waste, soils, composts, sludge, sediments, toys, organic ¹²⁾ and inorganic compounds ¹⁴⁾
12	Determination of elements by ICP-OES method ⁹⁾	ZP 17 (ČSN EN ISO 11885)	Water ⁸⁾ and aqueous extracts of waste
13	Determination of elements by atomic spectrometry - flame method ⁹⁾	ZP 18 (ČSN 757400; ČSN EN 1233; ČSN ISO 7980; ČSN ISO 8288; ČSN ISO 9964-1, ČSN ISO 9964 – 2, ČSN ISO 9964 – 3)	Water ⁸⁾ and aqueous extracts of waste
14	Determination of elements by atomic spectrometry - graphite furnace method ⁹⁾	ZP 19 (ČSN EN ISO 15586)	Water ⁸⁾ and aqueous extracts of waste
15	Determination of elements by ICP-OES method ¹⁰⁾	ZP 20 (ČSN EN ISO 11885)	Soils, composts, sludge, sediments, solid waste
16	Determination of elements by atomic spectrometry - flame method ¹⁰⁾	ZP 21 (ČSN 757400; ČSN EN 1233; ČSN ISO 7980; ČSN ISO 8288; ČSN ISO 9964-1, ČSN ISO 9964 – 2, ČSN ISO 9964 – 3)	Soils, composts, sludge, sediments, solid waste
17	Determination of elements by atomic spectrometry - graphite furnace method ¹⁰⁾	ZP 22 (ČSN EN ISO 15586)	Soils, composts, sludge, sediments, solid waste
18	Determination of elements by ICP-OES method ¹¹⁾	ZP 26 (ČSN EN ISO 11885)	Organic compounds ¹²⁾



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Ordinal number ¹⁾	Test procedure/ method name	Test procedure/ method identification	Tested object
19	Determination of elements by atomic spectrometry - flame method ¹¹⁾	ZP 27 (ČSN 757400; ČSN EN 1233; ČSN ISO 7980; ČSN ISO 8288; ČSN ISO 9964-1, ČSN ISO 9964 – 2, ČSN ISO 9964 – 3)	Organic compounds ¹²⁾
20	Determination of elements by atomic spectrometry - graphite furnace method ¹¹⁾	ZP 28 (ČSN EN ISO 15586)	Organic compounds ¹²⁾
21	Determination of elements by ICP-OES method ¹³⁾	ZP 29 (ČSN EN ISO 11885)	Inorganic compounds ¹⁴⁾
22	Determination of elements by atomic spectrometry - flame method ¹³⁾	ZP 30 (ČSN 757400; ČSN EN 1233; ČSN ISO 7980; ČSN ISO 8288; ČSN ISO 9964-1, ČSN ISO 9964 – 2, ČSN ISO 9964 – 3)	Inorganic compounds ¹⁴⁾
23	Determination of elements by atomic spectrometry - graphite furnace method ¹³⁾	ZP 31 (ČSN EN ISO 15586)	Inorganic compounds ¹⁴⁾
24-26	Reserved		
27	Determination of boiling temperature by DSC method	ZP 42	Chemical substances and agents ¹⁵⁾
28	Determination of melting/solidification temperature by DSC method	ZP 44	Chemical substances and agents ¹⁵⁾
29-39	Reserved		
40	Determination of electrical conductivity	ZP 47 (ČSN EN 27888)	Drinking, surface and waste water
41	Determination of pH by potentiometry	ZP 49 (ČSN ISO 10 523)	Drinking, surface and waste water



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Annex:

Flexible scope of accreditation

Ordinal numbers of tests
1-8, 12-23

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 of surface and underground water by manual and automatic sampler	ZP 33 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-10, ČSN ISO 5667-6, VP 61/L, ČSN 75 7315)	Surface, underground water
2	Waste water sampling by manual and automatic sampler	ZP 34 (ČSN EN ISO 5667-1, ČSN EN ISO 5667-3, ČSN ISO 5667-10, VP 61/L, ČSN 75 7315)	Waste water
3	Manual sampling of waste	ZP 36 (Ministry of Environment Guideline for waste sampling 2008, ČSN EN 14899)	Solid and pasty wastes

Explanations:

¹⁾analytes for ordinal number 1

naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo/a/anthracene, chrysene, benzo/b/fluoranthene, benzo/k/fluoranthene, benzo/a/pyrene, indeno(1,2,3,-cd) pyrene, benzo/g,h,i/perylene, dibenzo/a,h/anthracene

²⁾analytes for ordinal number 2

nitrobenzene, o-nitrotoluene, m-nitrotoluene, p-nitrotoluene, 2,4-dinitrotoluene, 2,6-dinitrotoluene, 1-chloro-2-4-dinitrobenzene

³⁾analytes for ordinal number 3

chloroform, 1,2-dichloroethane, benzene, tetrachloromethane, trichloroethylene, 1,1,2-trichloroethane, octane, toluene, tetrachloroethylene, butylacetate, chlorobenzene, ethylbenzene, m-xylene + p-xylene, o-xylene, styrene, 1,2,4,-trimethylbenzene, m-

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dichlorobenzene, p-dichlorobenzene, o-dichlorobenzene, o-chlorotoluene, 1,2,3-trichlorobenzene, 1,3,5-trichlorobenzene, 1,2,4-trichlorobenzene, undecane, 1,2,-trans-dichloroethene, 1,1-trans-dichloroethene, hexachlorobutadiene, dichloromethane, ethyl acetate, naphthalene

- ⁴)analytes for ordinal number 4 phenol, o-chlorophenol, m-chlorophenol, p-chlorophenol, 2,4-dichlorophenol, 2,5,-dichlorophenol, 2,3,-dichlorophenol, 3,4,-dichlorophenol, 2,4,6-trichlorophenol, 2,4,5-trichlorophenol, pentachlorophenol, o-methylphenol, 2,4-dibromophenol, m-methylphenol, p-methylphenol, 2,6-dimethylphenol, 2,4-dimethylphenol, 3,5-dimethylphenol, 2-naphthol
- ⁵)analytes for ordinal number 5+6 2,4,4'-TriCB (28), 2,2',5,5'-tetraCB(52), 2,2',4,5,5'-pentaCB(101), 2,2',3,4,4',5'-hexaCB(138), 2,2',4,4',5,5'-hexaCB(153), 2,2',3,4,4',5,5'-heptaCB(180), DekacB(209), hexachlorocyclohexane, pentachlorobenzene, hexachlorobenzene
- ⁶)analytes for ordinal number 7
- | | |
|---------|---|
| PCB-28 | 2,4,4'-trichlorobiphenyl |
| PCB-52 | 2,2',5,5'-tetrachlorobiphenyl |
| PCB-101 | 2,2',4,5,5'-pentachlorobiphenyl |
| PCB-118 | 2,3',4,4',5-pentachlorobiphenyl |
| PCB-138 | 2,2',3,4,4',5'-hexachlorobiphenyl |
| PCB-153 | 2,2',4,4',5,5'-hexachlorobiphenyl |
| PCB-180 | 2,2',3,4,4',5,5'-heptachlorobiphenyl |
| PCB-209 | Decachlorobiphenyl |
| | Sum of chlorohomolog groups Cl ₁ -Cl ₁₀ |
- ⁷)analytes for ordinal number 8 aniline, o-chloroaniline, m-chloroaniline + p-chloroaniline, 2,4,6-trimethylaniline, 4-fluoroaniline, 2,5-dichloroaniline, 3,4-dichloroaniline, N-ethylaniline
- ⁸)water Drinking and waste water
- ⁹)analytes for ordinal number 12+13+14 Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Pd, S, Sb, Se, Si, Sn, Sr, Ti, V, W, Zn, Zr
- ¹⁰)analytes for ordinal number 15+16+17 As, Ba, Be, Ca, Cd, Co, Cr, Cu, K, Mg, Mo, Ni, P, Pb, Sb, Sn, V, Zn
- ¹¹)analytes for ordinal number 18+19+20 Ag, Al, As, Ba, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pd, Pb, Sb, Se, Sn, Zn
- ¹²) dyes, pigments, selected raw materials, etc.
- ¹³)analytes for ordinal number 21+22+23 Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn

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- 14) inorganic salts, acids, etc.
15) Test principle is independent of the matrix character

DSC	Differential Scanning Calorimetry
ED	Electrochemical detector
GC/MS	Gas Chromatography/Mass Spectrometry
ICP - OES	Inductively Coupled Plasma Optical Emission Spectrometry
MoE	Ministry of Environment
OES	Optical Emission Spectrometry
Water	Drinking, surface, underground and waste water
VP	Internal Specification of the Laboratory
ZP	Testing Procedure (Internal Specification of the Laboratory)

