

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

- |                                    |   |
|------------------------------------|---|
| <b>1. Workplace Hradec Králové</b> | Za Škodovkou 305/5, 503 11 Hradec Králové |
| <b>2. Workplace Pardubice</b>      | č.p. 296, 533 54 Rybitví                  |

*The laboratory applies a flexible approach to the scope of accreditation.*

*The current list of activities carried out within the flexible scope is publicly available on the laboratory's website <https://empla.cz/osvedceni> in the form „List of activities within the flexible scope of accreditation“.*

*The laboratory is qualified to carry out standalone sampling.*

*Detailed information on activities within the scope of accreditation (determined analytes / tested subject) is given in the section „Specification of the scope of accreditation“.*

**1. Workplace Hradec Králové**

**Tests:**

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
<b>1</b>	<b>Chemical analyses</b>			
1.1	Determination of pH by potentiometry	SOP V 1 (ČSN ISO 10523)	Water, aqueous extracts	-
1.2	Determination of electrical conductivity	SOP V 2 (ČSN EN 27888)	Water, aqueous extracts	-
1.3	Determination of dissolved solids and DIS by gravimetry	SOP V 3 (ČSN 75 7346; ČSN 75 7347)	Water, aqueous extracts	-
1.4	Determination of suspended solids and loss on ignition of suspended solids by gravimetry	SOP V 4 (ČSN EN 872; ČSN 75 7350)	Raw and waste water	-
1.5	Determination of COD <sub>Mn</sub> by titration	SOP V 5 (ČSN EN ISO 8467)	Drinking, surface, raw and ground water	-
1.6	Determination of COD <sub>Cr</sub> by spectrophotometry	SOP V 6 (ČSN ISO 15705)	Waste, surface, ground water, aqueous extracts	-
1.7	Determination of dissolved oxygen by oxygen probe	SOP V 7 (ČSN EN ISO 5814)	Water	-
1.8	Determination of BOD <sub>5</sub> by oxygen probe	SOP V 8 (ČSN EN ISO 5815-1; ČSN EN 1899-2)	Waste, surface and ground water	-
1.9	Determination of ammonium in water and extracts by spectrophotometry	SOP V 9 (ČSN ISO 7150-1)	Water, aqueous extracts	-
1.10	Determination of nitrate and sulphate by capillary ITP method	SOP V 10 (STN 75 7430)	Water, aqueous extracts	-
1.11	Determination of nitrite by spectrophotometry	SOP V 11 (ČSN EN 26777)	Water, aqueous extracts	-

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
1.12	Determination of chlorides by titration	SOP V 12 (ČSN ISO 9297; ČSN 83 0530-20:1981)	Water, aqueous extracts	-
1.13	Determination of fluoride by ISE	SOP V 13 (ČSN ISO 10359-1; ČSN ISO 10359-2; ČSN P CEN/TS 17340)	Emissions, air, water, aqueous extracts	-
1.14	Determination of phosphate and total phosphorus by spectrophotometry	SOP V 14 (ČSN EN ISO 6878)	Emissions, air, water, aqueous extracts	-
1.15	Determination of volatile organic compounds by GC – FID/ECD/MS method	SOP V 15 (ČSN EN ISO 10301; ČSN ISO 11423-2)	Water, aqueous extracts	A, B, D
1.16	Determination of aniline and nitrobenzene by GC – FID/MS method	SOP V 49 (Water Analysis – Hewlett Packard, chap. 7, page 163-179)	Water	A, B, D
1.17	Determination of metals by AAS, flame method	SOP V 16a_1 (ČSN ISO 8288; ČSN ISO 9964; ČSN ISO 7980; ČSN EN 1233; ČSN 75 7400; ČSN EN ISO 5961)	Water, aqueous and acidic extracts	A, B, D
1.18	Determination of metals by AAS, flame method	SOP V 16a_2 (ČSN ISO 8288; ČSN ISO 9964; ČSN ISO 7980; ČSN EN 1233; ČSN 75 7400; ČSN EN ISO 5961)	Emission, air	A, B, D
1.19	Determination of $\alpha$ -modification of silicon dioxide in respirable or settled dust by FTIR method	SOP PP 8 (NIOSH 7602)	Air	-
1.20	Determination of metals by AAS, flameless method	SOP V 16c_1 (ČSN EN ISO 15586; ČSN EN 12506:2003)	Water, aqueous and acidic extracts	A, B, D
1.21	Determination of metals by AAS, flameless method	SOP V 16c_2 (ČSN EN ISO 15 586; ČSN EN 12 506:2003)	Emission, air	A, B, D
1.22	Determination of mercury by flameless AAS method (AMA)	SOP V 16d (ČSN 75 7440)	Emissions, air, water, aqueous and acidic extracts liquid and solid waste, sediments, sludge, soil, liquid and solid materials, food, feedstuffs, fertilizers	A

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
1.23	Determination of extractives by FTIR method	SOP V 17a (ČSN 75 7506)	Water, aqueous extracts	-
1.24	Determination of extractives by gravimetry	SOP V 17b (ČSN 75 7508; ČSN 75 7509)	Water, aqueous extracts	-
1.25	Determination of nonpolar extractives by FTIR method	SOP V 18 (ČSN 75 7505:1998)	Water, aqueous extracts	-
1.26	Determination of polycyclic aromatic hydrocarbons by HPLC-FLD method	SOP V 19 (ČSN 75 7554:1998)	Water, aqueous extracts	A, B, D
1.27	Determination of polychlorinated biphenyls and organochlorine pesticides by GC-ECD method	SOP V 20 (ČSN EN ISO 6468)	Water, aqueous extracts	A, B, D
1.28	Determination of univalent phenols by spectrophotometry	SOP V 21a (ČSN ISO 6439)	Emission, water, aqueous extracts	A
1.29	Determination of anionic surfactants by spectrophotometry	SOP V 22 (ČSN EN 903)	Water, aqueous extracts	A, D
1.30	Determination of AOX by coulometric analyser	SOP V 23 (ČSN EN ISO 9562)	Water, aqueous extracts	-
1.31	Determination of formaldehyde by spectrophotometry after condensation with acetylacetone	SOP V 47a (ČSN EN ISO 12460-3; ČSN EN ISO 12460-4; ČSN EN ISO 12460-5; Davídek et al.: Laboratory manual of food analysis, page 417, ICUMSA Method GS2-36)	Water, aqueous extracts	-
1.32	Determination of formaldehyde by spectrophotometry after condensation with acetylacetone (distillation method)	SOP V 47b (ČSN EN ISO 12460-3; ČSN EN ISO 12460-4; ČSN EN ISO 12460-5; Davídek et al.: Laboratory manual of food analysis, page 417)	Cosmetics, timber, chipboard, solid materials	-
1.33	Determination of non-ionic surfactants by photometry using Spectroquant kit	SOP V 36 (Merck manual – Spectroquant Surfactant nonionic cell test)	Water	-
1.34	Determination of phthalate by GC-MS method	SOP V 54 (ČSN EN ISO 18856)	Water, aqueous extracts	A, B, D
1.35	Determination of phthalate by GC-MS method	SOP O 15 (ČSN P CEN/TS 16183)	Soil, sludge, sediments	A, B, D

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
1.36	Determination of total dry matter, humidity, ash and loss by annealing/annealing residue	SOP O 1 (ČSN ISO 11 465; ČSN 44 1377; ČSN EN ISO 18134-1; ČSN EN ISO 21656; ČSN EN ISO 18122; ČSN ISO 1171; ČSN EN 15934; ČSN EN 15935; ČSN EN 15169:2007; ČSN 46 7092-3)	Liquid and solid waste, sediments, sludge, soils, solid materials, solid fuels, biofuels, solid alternative fuels, vegetable material, feedstuffs	-
1.37	Determination of metals in materials after microwave decomposition or after decomposition on a dry route by flame AAS method	SOP O 2_1.1 (ČSN EN 13346:2001)	Liquid and solid waste, sediments, sludge, soils, solid materials	A, B, D
1.38	Determination of metals in materials after microwave decomposition or after decomposition on a dry route by flameless AAS method	SOP O 2_1.2 (ČSN EN 13346:2001)	Liquid and solid waste, sediments, sludge, soils, solid materials	A, B, D
1.39	Determination of metals in materials after microwave decomposition by flame AAS method	SOP O 2_2.1 (ČSN ISO 8288; ČSN ISO 9964; ČSN ISO 7980)	Emission, air	B, D
1.40	Determination of metals in materials after microwave decomposition by flameless AAS method	SOP O 2_2.2 (ČSN EN ISO 15586)	Emission, air	B, D
1.41	Determination of metals in materials after microwave decomposition or after decomposition on a dry route by flame AAS method	SOP O 2_3.1 (ČSN 467092; ČSN EN 14082:2003)	Feedstuffs, fertilizers, food, cosmetics, vegetable materials	A, B, D
1.42	Determination of metals in materials after microwave decomposition or after decomposition on a dry route by flameless AAS method	SOP O 2_3.2 (ČSN 467092; ČSN EN 14082:2003)	Feedstuffs, fertilizers, food, cosmetics, vegetable materials	A, B, D
1.43	Determination of volatile and semi-volatile compounds by GC–FID/ECD/MS method	SOP O 3 (ČSN EN ISO 10301; ČSN ISO 11423-2)	Liquid and solid waste, sediments, sludge, soils, solid materials	A, B, D
1.44	Determination of phenols and chlorophenols by GC - MS method	SOP V 50 (ČSN EN 12673)	Water	A, B, D
1.45	Determination of nonpolar extractives by infrared spectroscopy NEL <sub>IR</sub>	SOP O 4 (TNV 75 8052:1998)	Liquid and solid waste, sediments, sludge, soils, solid materials	-

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
1.46	Determination of polychlorinated biphenyls and organochlorine pesticides by GC-ECD method	SOP O 5 (ČSN EN 17322; ČSN EN 61619; ČSN EN 12766-1)	Liquid and solid waste, sediments, sludge, soils, solid materials; oils	A, B, D
1.47	Determination of polycyclic aromatic hydrocarbons by HPLC-FLD method	SOP O 6 (ČSN 75 7554:1998; ČSN EN 17503)	Liquid and solid waste, sediments, sludge, soils, bitumen, bituminous recycled materials, bituminous mixtures, solid materials	A, B, D
1.48	Determination of volatile organic compounds by GC-FID/MS method	SOP E 1 (ČSN EN ISO 16017-1; ČSN P CEN/TS 13649)	Emissions, air, soil air, pressure gas	A, B, D
1.49*	Determination of volatile organic compounds by continual measurement using flame ionization detector	SOP E 2 (ČSN EN 12619; ISO 10396 )	Emissions	-
1.50	Determination of dustiness by gravimetric method	SOP PP 1 (ČSN EN 481; Annex AHEM No. 8-1976; Annex AHEM No. 9-1987; Government Regulation No. 361/2007 Coll.; ČSN EN 482; ČSN EN 689+AC; ČSN ISO 8573-8; VDA 19.1; VDA 19.2)	Working environment, pressure gas, air	-
1.51	Determination of hexavalent chromium by spectrophotometry	SOP V 24 (ČSN ISO 11083; NIOSH 7600)	Emission , air, water, aqueous extracts	-
1.52	Determination of total nitrogen by means of commercial analytical set Spectroquant	SOP V 25 (Merck manual)	Water, aqueous extracts	-
1.53	Determination of selected elements by ICP-OES method	SOP V 29a (ČSN EN ISO 11885)	Water, extracts	A, B, D
1.54	Determination of selected elements by ICP-OES method	SOP V 29b (ČSN EN 16170)	Sediments, liquid and solid waste, soils and materials	A, B, D
1.55	Determination of selected elements by ICP-OES method	SOP V 29c (ČSN EN ISO 11885)	Emission, air	B, D
1.56	Determination of selected elements by ICP-OES method	SOP V 29d (ČSN EN 15510; ČSN EN 15621)	Feedstuffs, food, vegetable materials	A, B, D
1.57	Determination of TOC and DOC by NDIR analyzer	SOP V 27 (ČSN EN 1484)	Water, aqueous extracts	-

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
1.58	Determination of fluoride by means of ISE	SOP O 7 (ČSN ISO 10359-1; ČSN ISO 10359-2)	Waste, soils	-
1.59	Determination of acceptable nutrients according to Mehlich (Ca, Mg, K, P)	SOP O 11 (JPP ÚKZÚZ, AP1 chap. 3)	Soils	-
1.60	Determination of melting point by means of melting microscope	SOP O 12 (Commission Regulation EC No. 440/2008, met. A.1)	Chemical substances and mixtures	-
1.61	Determination of ethanol by pycnometry	SOP P 1 (ČSN 56 0210-4)	Beverages, spirits, alcohol, technological liquids	-
1.62	Determination of methanol, high-molecular-weight alcohols and volatile impurities by GC-FID content	SOP P 2 (ČSN 56 0210-12:1994; ČSN EN 15 721; ČSN 66 0805 Commission Regulation (EC) No. 2870/2000)	Beverages, spirits, alcohol	A, B, D
1.63	Determination of phthalate by GC-FID method	SOP P 3 (EPA 8060; ČSN EN ISO 18856)	Beverages	A, B, D
1.64	Determination of ethyl carbamate by GC-FID, GC-MS method	SOP P 4 (Compendium of international methods of analysis of spirituous beverages of vitivinicultural origin OIV-MA-BS-25, 2009)	Beverages	-
1.65	Determination of sugar by gravimetry	SOP P 5 (ČSN 56 0210 p. 47:1983; ČSN 56 0210 p. 48:1983; ČSN 56 0210 p. 49:1983)	Beverages	-
1.66	Determination of triazine pesticides by GC-MS method	SOP V 51a (ČSN EN ISO 10695)	Water, extracts	A, B, D
1.67	Determination of triazine pesticides by GC-MS method	SOP V 51b (ČSN EN ISO 10695)	Vegetable materials	A, B, D
1.68	Determination of numerical concentration of mineral fibres (optical microscopy with phase contrast)	SOP PP 11 (Government Regulation No. 361/2007 Coll.; NIOSH Meth. No. 7400)	Air	-
1.69*	Semiquantitative determination of analytes by means of detection tubes	SOP PP 10 (ČSN EN ISO 17621; operating instructions for the detection tubes)	Working and indoor environment, Emission, pressure gas	B
1.70	Determination of mineral acids by spectrophotometry	SOP PP 2 (Sanitary Regulation No. 60, page 40-42)	Emission, air, working environment,	-

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
1.71	Determination of ammonia by spectrophotometry	SOP PP 3 (Sanitary Regulation No. 60, page 15-18; ČSN ISO 7150-1; ČSN EN ISO 21877)	Emission, air	-
1.72	Determination of sulfane by spectrophotometry	SOP PP 4 (Sanitary Regulation No. 60, page 91-95)	Emission, air	-
1.73	Determination of carbonyl compounds by HPLC – UV method	SOP PP 5 (EPA TO 11)	Emission, air	B, D
1.74	Determination of polycyclic aromatic hydrocarbons by HPLC-FLD method	SOP PP 6 (NIOSH Method 5506)	Emission , air	B, D
1.75	Determination of nitrogen oxides by spectrophotometry	SOP PP 7 (Sanitary Regulation No. 60, page 79-83)	Emission, air	-
1.76	Determination of nitrate by spectrophotometry	SOP V 28 (ČSN ISO 7890 – 3)	Water, aqueous extracts	-
1.77	Determination of diisocyanate by HPLC –FLD method	SOP PP 9 (OSHA 42; OSHA 47)	Emission, air	--
1.78	Determination of ammonia nitrogen by CFA method	SOP V 30 (ČSN ISO 7150-2:1994)	Waste water, aqueous extracts	-
1.79	Determination of nitrite and nitrate nitrogen by CFA method	SOP V 31 (ČSN EN ISO 13395)	Water, aqueous extracts	-
1.80	Determination of total nitrogen by CFA method and calculation of N <sub>org</sub> and N <sub>inorg</sub>	SOP V 32 (ČSN EN ISO 13395; ČSN EN ISO 11905-1)	Water, aqueous extracts	-
1.81	Determination of phosphate phosphor and total phosphor after decomposition by CFA method	SOP V 33 (ČSN EN ISO 15681-2)	Water, aqueous extracts	-
1.82	Isotachophoretic determination of organic acids	SOP P 6 (AL No. 5 for IONOSEP 2003 – Recman 2003)	Feedstuffs, silage, fermentation products	A, B, D
1.83	Determination of aflatoxins B1, B2, G1, G2 by HPLC-FLD method	SOP P 7 (AOAC Method 990.33)	Food, feedstuffs	A, B, D
1.84	Determination of Kjeldahl nitrogen by titration and nitrogenous substances by calculation	SOP K 2a (ČSN 46 7092-4; Commission Regulation EC No. 152/2009 Annex III; ČSN ISO 1871; ČSN EN ISO 8968)	Feedstuffs, plants, food, milk, fertilizers	-
1.85	Determination of Kjeldahl nitrogen by titration and nitrogenous substances by calculation	SOP K 2b (ČSN EN 13342; ČSN ISO 11261; ČSN EN 16169)	Sludge, biowaste, composts, soils, sediments	-

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
1.86	Determination of boron – Spectrometric method using azomethine H	SOP V 35 (ČSN ISO 9390)	Water, aqueous extracts	-
1.87	Determination of chlorophyll-a by spectrophotometry	SOP V 26 (ČSN ISO 10260)	Surface water, bathing water	-
1.88	Determination of total cyanide by spectrophotometry	SOP V 37 (ČSN 75 7415)	Water, aqueous extracts, waste	-
1.89	Determination of easily liberatable cyanides by spectrophotometry	SOP V 38 (ČSN ISO 6703-2)	Emissions: air water, aqueous extracts, waste	-
1.90	Determination of colour by spectrophotometry	SOP V 39 (ČSN EN ISO 7887)	Drinking and ground water	-
1.91	Determination of AOX, EOX by coulometry using an analyser	SOP O 8 (DIN 38 414; manual to analyzer ESC 1200)	Solid materials, sludge, soils, oils, sediments	-
1.92	Determination of total content of impurities by sieving and sorting	SOP P 8 (ČSN EN ISO 658)	Oil seeds	-
1.93	Determination of acid value of fat by alkalimetry	SOP P 9 (AOAC Method 939.05; ČSN 46 7092-8)	Fats, oils, cereals, oil seeds, feedstuffs	-
1.94	Determination of fat content by gravimetry after extraction	SOP K 1 (Commission Regulation (EC) No. 152/2009, Annex III; ČSN EN ISO 659)	Feedstuffs, oil seeds	-
1.95	Determination of fibre by oxidation hydrolysis method	SOP K 3 (Commission Regulation (EC) No. 152/2009, Annex III, Davídek et al.-LPAP page 61; Chem. analysis in agr. 1. page 261)	Feedstuffs and vegetable materials, food	-
1.96	Determination of FOS and TAC by titration	SOP O 13 (Hach-Lange Application Note)	Digested biomass from biogas plants	-
1.97	Determination of pH-CaCl <sub>2</sub> by potentiometry	SOP O 14 (JPP ÚKZÚZ AP1 chap. 2.3.1)	Soils	-
1.98	Determination of C (TOC), H, N, S by means of GC-TCD analyzer	SOP O 9 (ČSN EN 13137:2002; ČSN EN ISO 16948)	Solid materials, sludge, waste	-
1.99	Determination of morphine alkaloids by HPLC-DAD method	SOP P 10 (JPBA 32 (2003) 913-920)	Poppy, poppy straw	A, B, D
1.100*	Determination of free and total chlorine by spectrophotometry using Spectroquant set and bound chlorine by calculation	SOP V 40 (ČSN EN ISO 7393-2 Merck manual)	Bathing, drinking and waste water	-
1.101	Determination of turbidity by nephelometry	SOP V 41 (ČSN EN ISO 7027-1)	Drinking water	-
1.102	Determination of odour and taste (sensory test)	SOP V 42 (ČSN 75 7340)	Drinking water	-



**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
1.103*	Determination of water temperature	SOP V 43 (ČSN 75 7342)	Water	-
1.104	Determination of redox potential (ORP)	SOP V 46 (ČSN 75 7367)	Water	-
1.105*	Determination of ozone by means of commercial analytical set Spectroquant by spectrophotometry	SOP V 48 (Merck manual)	Ozonized water: drinking and bathing	-
1.106*	Determination of velocity, flowrate and moisture of gas streams in ducts	SOP E 11 (ČSN ISO 10780; ČSN EN 14790; ČSN ISO 8573-3)	Emission, pressure gas	-
1.107*	Determination of oxygen by paramagnetic method	SOP E 12 (ISO 10396; ČSN EN 14789)	Emissions	-
1.108*	Determination of mass concentration of gaseous components in emissions by NDIR method (NO, NO <sub>2</sub> , CO, SO <sub>2</sub> )	SOP E 3 (ISO 10396; ČSN ISO 10849; ČSN EN 15058; ČSN ISO 7935)	Emissions	-
1.109	Determination of gross calorific value and calculation of net calorific value	SOP AP 1 (ČSN ISO 1928; ČSN DIN 51900-1; ČSN DIN 51900-3; ČSN EN 15170; ČSN EN ISO 18125; ČSN EN ISO 21654; ČSN EN ISO 1716)	Solid fuels, biofuels, alternative fuels, solid materials, sludge	A
1.110	Determination of volatile combustible matter by gravimetric method	SOP AP 2 (ČSN 44 1351:2001)	Solid fuels	-
1.111	Determination of total sulphur content by ESCHKA method	SOP AP 3 (ČSN 44 1379)	Solid fuels	-
1.112	Determination of nonionic surface-active agents by spectrophotometry	SOP V 44 (M. Horáková: Chem. and phys. methods of water analysis, SNTL Prague, 1986, chap. 2.42.5; ČSN ISO 7875-2)	Water	-
1.113	Determination of hydrocarbons C <sub>10</sub> – C <sub>40</sub> by GC-FID method	SOP O 10a (ČSN EN 14039; ČSN EN ISO 9377-2)	Water	A, D
1.114	Determination of hydrocarbons C <sub>10</sub> – C <sub>40</sub> by GC-FID method	SOP O 10b (ČSN EN 14039; ČSN EN ISO 9377-2)	Sediments, sludge, waste, soil,	A, D
1.115	Determination of ethanedinitrile by GC-FID method	SOP V 52 (OSHA PV 2104)	Water	-

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
1.116	Determination of vulcanization fumes by gravimetry	SOP E 4 (MDHS 47/2)	Air	-
1.117	Determination of neutralizing capacity (ANC, BNC) by titration and determination of CO <sub>2</sub> by calculation	SOP V 45 (ČSN EN ISO 9963-1; ČSN 75 7372)	Water	-
1.118	Determination of solid pollutants by gravimetry	SOP E 5 (ČSN EN 13284-1)	Emissions	-
1.119	Determination of concentration of odour substances by dynamic olfactometry	SOP E 6 (ČSN EN 13725)	Emissions, air	-
1.120	Determination of gaseous inorganic compounds of chlorine by titration	SOP E 7 (ČSN EN 1911; ČSN 83 4751)	Emissions, air	-
1.121	Determination of sulphur oxides and sulphuric acid by titration	SOP E 8 (ČSN 83 4711; ČSN EN 14791)	Emissions, air	-
1.122*	Determination of mass concentration of nitrogen oxides (NO <sub>x</sub> ) in emission by chemiluminescence method	SOP E 10 (ISO 10396; ČSN EN 14792)	Emissions	-
1.123	Demonstration of quality of automated measuring systems	SOP E 13 (ČSN EN 14181; cl.6 QAL2; cl.8 AST)	Automated measuring systems for emission measurement	-
1.124	Determination of the mass concentration of PCDD/F and PCB by calculation from measured values	SOP E 14 (ČSN EN 1948-1; ČSN EN 1948-4+A1)	Emissions, air	-
1.125	Determination of oil content in gaseous sample by FTIR method	SOP E 15 (NIOSH 5026; ČSN ISO 8573-2; ČSN ISO 8573-5)	Emissions, pressure gas, air	-
1.126	Determination of ozone by spectrophotometry	SOP E 16 (OSHA ID – 214)	Air	-
1.127	Determination of alkali hydroxides by titration	SOP E 17 (NIOSH 7401)	Air	-
1.128	Determination of glyphosate and AMPA in water by HPLC-FLD method	SOP V 53 (ČSN ISO 21458)	Water	-
1.129	Determination of glyphosate and AMPA by HPLC-FLD method	SOP P 11 (AOAC 2000.52; ČSN ISO 21458)	Plant material	-

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
1.130	Determination of the content of vitamin A and vitamin E by HPLC-UV/FLD method	SOP K 4 (ÚKZÚZ JPP ZK 10380.1; ČSN EN 12823-1; ČSN EN 12822)	Feedstuffs, premixes, food	-
1.131	Determination of Bisphenol A by HPLC-UV method	SOP PP 12 (OSHA Method 1018)	Air	-
1.132	Determination of water content by Karl Fischer method	SOP V 55 (Mettler Toledo titrator manual)	Liquids	-
1.133	Determination of univalent phenols by spectrophotometry	SOP V 21b (ČSN ISO 6439)	Solid materials	-
<b>2</b>	<b>Microbiological analyses</b>			
2.1	Detection and enumeration of coliform bacteria by membrane filtration method	SOP MB 1 (ČSN 75 7837)	Surface, waste and untreated water	-
2.2	Detection and enumeration of thermotolerant coliform bacteria and <i>Escherichia coli</i> by membrane filtration method	SOP MB 2 (ČSN 75 7835)	Surface, waste, drinking and ground water	-
2.3	Detection and enumeration of intestinal enterococci by membrane filtration method	SOP MB 3 (ČSN EN ISO 7899-2)	Surface, waste, drinking, ground and bathing water	-
2.4	Detection and enumeration of mesophilic bacteria by culture method	SOP MB 4 (ČSN 75 7841)	Drinking and surface water	-
2.5	Detection and enumeration of psychrophilic bacteria by culture method	SOP MB 5 (ČSN 75 7842)	Drinking and surface water	-
2.6	Detection and enumeration of coliform bacteria by culture method	SOP MB 6 (ČSN ISO 4832; ČSN EN ISO 18593)	Food, beverages, feedstuffs and raw materials for their production, spaces	-
2.7	Enumeration of coagulase-positive staphylococci ( <i>Staphylococcus aureus</i> ) by culture method	SOP MB 7 (ČSN EN ISO 6888-1, ČSN EN ISO 18593)	Food, beverages, pool water, feedstuffs and raw materials for their production, spaces	-
2.8	Determination of presumptive <i>Bacillus cereus</i> by culture method	SOP MB 8 (ČSN EN ISO 7932, ČSN EN ISO 18593)	Food, beverages, feedstuffs and raw materials for their production, spaces	-
2.9	Detection and enumeration of <i>Clostridium perfringens</i> including spores by membrane filtration method	SOP MB 9 (Reg. MH No. 252/2004 Coll., Annex 6)	Drinking, surface and waste water	-
2.10	Detection and enumeration of <i>Escherichia coli</i> and coliform bacteria by membrane filtration method	SOP MB 10 (ČSN EN ISO 9308-1)	Drinking, ground, pool, purified and process water	-

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
2.11	Enumeration of culturable microorganisms at 22 °C and 36 °C	SOP MB 11 (ČSN EN ISO 6222)	Drinking, ground, pool, surface and process water	-
2.12	Detection and enumeration of <i>Legionella</i> by direct and membrane filtration method	SOP MB 12 (ČSN EN ISO 11731; ČSN EN ISO 18593; SZÚ AHEM 1/2002, MoH Decree No. 6/2003 Coll., Annex 3)	Drinking, hot, service, pool, surface, cooling; Air, indoor environment of buildings, spaces	-
2.13	Detection and enumeration of <i>Escherichia coli</i> and coliform bacteria by Colilert/Colikat defined substrate method	SOP MB 13 (ČSN EN ISO 9308-2)	Drinking, service, waste, pool, surface and ground water	-
2.14	Enumeration of yeasts and moulds by culture method	SOP MB 14 (ČSN ISO 21527-1; ČSN ISO 21527-2; ČSN EN ISO 18593; SZÚ AHEM 1/2002, MoH Decree No. 6/2003 Coll., Annex 3)	Food, feedstuffs, pool and service water, spaces, air, indoor environment of buildings	-
2.15	Enumeration of total microorganisms by culture method	SOP MB 15 (ČSN EN ISO 4833-1; ČSN EN ISO 4833-2; ČSN EN ISO 18593; SZÚ AHEM 1/2002, MoH Decree No. 6/2003 Coll., Annex 3)	Food, feedstuffs, spaces, air, indoor environment of buildings,	-
2.16	Detection and enumeration of <i>Pseudomonas aeruginosa</i> by membrane filtration method	SOP MB 16 (ČSN EN ISO 16266; ČSN EN ISO 18593)	Water, materials and equipment in contact with drinking water	-
2.17	Detection and enumeration of enterococci by Enterolert <sup>TM</sup> - DW defined substrate method	SOP MB 17 (Enterolert <sup>TM</sup> -DW manual)	Drinking, process, waste and pool water	-
2.18	Detection and enumeration of <i>Enterobacteriaceae</i> by culture method	SOP MB 18 (ČSN EN ISO 21528-1; ČSN EN ISO 21528-2; ČSN EN ISO 18593)	Food, beverages, feedstuffs and raw materials for their production, pool water, spaces, waste	-
2.19	Enumeration of β-glucuronidase-positive <i>E. coli</i> by culture method	SOP MB 19 (ČSN ISO 16649-1; ČSN ISO 16649-2)	Food, beverages, feedstuffs and raw materials for their production, spaces <sup>9</sup> , waste	-
2.20	Determination of fungicidal efficiency by quantitative suspension method	SOP MB 20 (ČSN EN 13624; ČSN EN 1657; ČSN EN 1275; ČSN EN 1650)	Disinfecting and antiseptic agents	-

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
2.21	Enumeration of plankton blue green algae by optical microscopy	SOP MB 21 (ČSN 75 7717)	Surface water, bathing water	-
2.22	Determination of bactericidal efficiency by quantitative suspension method	SOP MB 22 (ČSN EN 1040; ČSN EN 1276; ČSN EN 13623; ČSN EN 1656; ČSN EN 13727+A2)	Disinfecting and antiseptic agents	-
2.23	Determination of disinfecting efficiency by culture method	SOP MB 23 MoH Decree No. 409/2005 Coll., Annex 4)	Disinfecting and antiseptic agents	-
2.24	Detection and identification of microbial contamination by specified and non-specified microorganisms by culture method	SOP MB 24 (ČSN EN ISO 18415; ČSN EN ISO 21148); Czech Pharmacopoeia	Cosmetics products, medical devices and PBU	-
2.25	Enumeration and detection of aerobic mesophilic bacteria by culture method	SOP MB 25 (ČSN EN ISO 21149; Czech Pharmacopoeia)	Cosmetics, medical devices and PBU	-
2.26	Enumeration of yeasts and moulds by culture method	SOP MB 26 (ČSN EN ISO 16212; Czech Pharmacopoeia)	Cosmetics, medical devices and PBU	-
2.27	Detection of <i>Escherichia coli</i> by culture method	SOP MB 27 (ČSN EN ISO 21150; Czech Pharmacopoeia)	Cosmetics, medical devices and PBU	-
2.28	Detection of <i>Staphylococcus aureus</i> by culture method	SOP MB 28 (ČSN EN ISO 22718; Czech Pharmacopoeia)	Cosmetics, medical devices and PBU	-
2.29	Detection of <i>Pseudomonas aeruginosa</i> by culture method	SOP MB 29 (ČSN EN ISO 22717 + A1; Czech Pharmacopoeia)	Cosmetics, medical devices and PBU	-
2.30	Detection of <i>Candida albicans</i> by culture method	SOP MB 30 (ČSN EN ISO 18416 + A1; Czech Pharmacopoeia)	Cosmetics, medical devices and PBU	-
2.31	Detection of antimicrobial protection by culture method	SOP MB 31 (ČSN EN ISO 11930 + A1)	Cosmetics products,	-
2.32	Detection of <i>Listeria monocytogenes</i> by culture method	SOP MB 32 (ČSN EN ISO 11290-1; ČSN EN ISO 18593)	Food, beverages, feedstuffs and raw materials for their production, spaces	-
2.33	Detection of <i>Salmonella</i> by culture method	SOP MB 33 (ČSN EN ISO 6579-1 + A1; ČSN ISO 19250; AHEM 1/2008, AHEM 7/2001; Act No. 541/2020 Coll.; ČSN EN ISO 18593)	Food, beverages, feedstuffs and raw materials for their production, spaces, water, animal farming environment, waste, sludge, composts and sediments, solids	-

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
2.34	Detection and enumeration of thermotolerant coliform bacteria by culture method	SOP MB 34 (AHM 7/2001, AHM 1/2008)	Sludge, waste, composts and sediments	-
2.35	Detection and enumeration of enterococci by culture method	SOP MB 35 (AHM 7/2001, AHM 1/2008)	Sludge, waste, composts and sediments	-
2.36	Enumeration of <i>Listeria monocytogenes</i> by culture method	SOP MB 36 (ČSN EN ISO 11290-2, ČSN EN ISO 18593)	Food, beverages, feedstuffs and raw materials for their production, spaces	-
2.37	Enumeration of thermophilic acidophilic bacteria and guaiacol producing bacteria by culture method	SOP MB 37 (ICUMSA Method GS 2/3-50:2013)	Food and raw materials for the production of food	-
<b>3</b>	<b>Ecotoxicological analyses</b>			
3.1	Test of acute lethal toxicity to a freshwater fish	SOP ET 1 (ČSN EN ISO 7346; OECD 203; Directive 67/548/EEC; Commission Reg. (EC) 440/2008 Met. C.1)	Water, extracts of waste and sediments, chemical substances and mixtures	-
3.2	Test of acute lethal toxicity to a water arthropod	SOP ET 2 (ME Bulletin, Part 4, Volume 2007; ČSN EN ISO 6341; OECD 202; Directive 67/548/EEC; Commission Regulation (EC) 440/2008 met. C.2)	Water, extracts of waste and sediments, chemical substances and mixtures	-
3.3	Test of inhibition of growth of green alga	SOP ET 3 (ME Bulletin, Part 4, Volume 2007; ČSN EN ISO 8692; OECD 201; Directive 67/548/EEC; Commission Regulation (EC) 440/2008 met. C.3)	Water, extracts of waste and sediments, chemical substances and mixtures	-
3.4	Mustard root growth inhibition test	SOP ET 4 (ME Bulletin, Part 4, Volume 2007)	Water, extracts of waste and sediments	-
3.5	Bacterial test of the inhibition of bioluminescence emitted by <i>Vibrio Fischeri</i> bacteria	SOP ET 5 (ČSN EN ISO 11348)	Water, extracts of waste and sediments, chemical substances and mixtures	-
3.6	Biological degradability of organic compounds in an aqueous medium (Zahn-Wellens test)	SOP ET 6 (OECD 302B; ČSN EN ISO 9888; Commission Regulation (EC) 440/2008 met. C.9; Directive 67/548/EEC)	Water, extracts of waste, chemical substances and mixtures	-

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
3.7	Determination of biological degradability of organic compounds by simulation test with activated sludge	SOP ET 7 (OECD 303A; ČSN EN ISO 11733; Commission Regulation (EC) 440/2008 met.C.10; EC Regulation 648/2004)	Water, extracts of waste, chemical substances and mixtures	-
3.8	Biological degradability of organic compounds in an aqueous medium (closed bottle test)	SOP ET 8 (OECD 301D; ČSN ISO 10707; Commission Regulation (EC) 440/2008 met. C.4-E; Directive 67/548/EEC)	Water, extracts of waste, chemical substances and mixtures	-
3.9	Biological degradability of organic compounds in an aqueous medium (test for the release of CO <sub>2</sub> )	SOP ET 9 (OECD 301 B; Commission Regulation (EC) 440/2008 met. C.4-C)	Water, extracts of waste, chemical substances and mixtures	-
3.10	Test of toxicity to Enchytraeidae	SOP ET 10 (ČSN EN ISO 16387; MoA and MoE Decree 257/2009 Coll., OECD 220)	Soil, soil materials, sediments, chemical substances and mixtures	-
3.11	Test of toxicity to Collembola	SOP ET 11 (ČSN EN ISO 11267;; MoA and MoE Decree 257/2009 Coll.)	Soil, soil materials, sediments, chemical substances and mixtures	-
3.12	Test of inhibition of growth of higher plants - on salad	SOP ET 12 (ČSN EN ISO 11269-1; MoA and MoE Decree 257/2009 Coll.)	Soil, soil materials, sediments, chemical substances and mixtures	-
3.13	Determination of potential nitrification and inhibition of nitrification	SOP ET 13 (MoA and MoE Decree 257/2009 Coll.; ČSN EN ISO 15685)	Soil, soil materials, sediments	-
3.14	Verification of algicidal efficacy by green algae growth inhibition method	SOP ET 14 MoH Decree No. 409/2005 Coll., Annex 4 ČSN EN ISO 8692)	Chemical disinfecting and antiseptic agents, algicides	-
<b>4</b>	<b>Physical measurements</b>			
4.1*	Determination of sound power and measurement of sound pressure levels	SOP F 1 (ČSN EN ISO 3746; ČSN EN ISO 3744; ČSN EN ISO 11201; ČSN EN ISO 11202; ČSN EN ISO 11203; ČSN EN ISO 11204)	Stationary noise sources	-

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
4.2*	Measurement of noise in working environment	SOP F 2 (ČSN EN ISO 9612; MoH CR Bulletin, Part 4, Volume 2013)	Working environment	-
4.3*	Measurement of noise in non-working environment	SOP F 3 (ČSN ISO 1996-1; ČSN ISO 1996-2; MoH CR Bulletin, Part 14, Volume 2023)	Non-working environment	-
4.4*	Measurement of daylight	SOP F 4 (ČSN 36 0011-1, ČSN 36 0011-2)	Indoor environment	-
4.5*	Measurement of artificial lighting	SOP F 5 (ČSN 36 0011-1; ČSN 36 0011-3; ČSN EN 12464-1; ČSN EN 12464-2)	Building interior	-
4.6*	Measurement of microclimatic conditions (resulting temperature of a spherical thermometer, air temperature, relative air humidity, air flow velocity, operating temperature)	SOP F 6 (ČSN EN ISO 7726 MoH CR Bulletin, Part 8, Volume 2013)	Indoor and working environment	-
4.7*	Measurement of vibrations (vibrations transferred to the hand and whole-body exposure)	SOP F 7 (ČSN EN ISO 5349-1; ČSN EN ISO 5349-2; ČSN ISO 2631-1; MoH CR Bulletin, Part 4, Volume 2013)	Hand tools and machines	-
4.8*	Measurement of sound insulation	SOP F 8 (ČSN EN ISO 717-1; ČSN EN ISO 10140-2; ČSN EN ISO 16283-1 ČSN EN ISO 16283-3)	Building structures	-
4.9*	Measurement of reverberation time	SOP F 9 (ČSN EN ISO 3382-1, cl. 5.2, ČSN EN ISO 3382-2)	Building interior	-

<sup>1</sup> asterisk at the ordinal number identifies the tests, which the laboratory is qualified to carry out outside the permanent laboratory premises; the numerical index at the test ordinal number identifies the location carrying out the test (the identification of the locations is given on the first page of this document)

<sup>2</sup> if the document identifying the test procedure is dated, only these specific procedures are used. If the document identifying the test procedure is not dated, the latest valid edition of the specified procedure is used (including any changes)

<sup>3</sup> degrees of freedom: A – Flexibility concerning materials/products (subject of the test), B – Flexibility concerning components/parameters/characteristics, C – Flexibility concerning the performance of the method, D – Flexibility concerning the method



**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

The laboratory can modify the test procedures with the specified degree(s) of freedom in the scope of accreditation while maintaining the principle of measurement. If no degree of freedom is specified, the laboratory cannot apply a flexible approach to the scope of accreditation for the test

**Specification of the scope of accreditation:**

Ordinal test number	Detailed information on activities within the scope of accreditation (determined analytes)
1.15	Chloroform, bromoform, dibromochloromethane, bromodichloromethane, benzene, toluene, o-xylene, m-xylene, p-xylene, trichloroethene, tetrachloroethene, chlorobenzene, p-dichlorobenzene, o-dichlorobenzene, 1,2-dichloroethane, 1,2-cis-dichloroethene, 1,2-trans-dichloroethene, styrene, tetrachloromethane, ethylbenzene, n-hexane, 1,1-dichloroethene, 1,1,1-trichloroethane, dichloromethane, vinylchloride, sum of BTX by calculation from the measured values
1.16	Aniline, 2,3-dichloroaniline, 2,4-dichloroaniline, 2,5-dichloroaniline, 2,6-dichloroaniline, 3,4-dichloroaniline, 3,5-dichloroaniline, 2,4,6-trimethylaniline, nitrobenzene, N-ethylaniline
1.17	Ag, Al, Ba, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Zn, Ti, Sr, W
1.18	Ag, Al, Ba, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Zn, Ti, Sr, W
1.20	As, Ba, Be, Cd, Cr, Pb, Sb, Se, Sn, Tl, V
1.21	As, Ba, Be, Cd, Cr, Pb, Sb, Se, Sn, Tl, V
1.26	PAH: naphthalene, acenaphthene, acenaphthylene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, dibenzo[ah]anthracene, benzo[ghi]perylene, indeno[1,2,3-cd]pyrene; sum of PAH by calculation from the measured values
1.27	OCP: hexachlorobenzene, lindane, 4,4'-DDT, 4,4'-DDE, aldrin, metoxychlor, heptachlor, $\alpha$ - hexachlorocyclohexane, $\beta$ - hexachlorocyclohexane, pentachlorobenzene PCB: congeners 28, 52, 101, 118, 138, 153, 180; sum of PCB by calculation from measured values
1.34	Dibutyl-phthalate (DBP), di(2-ethylhexyl)-phthalate (DEHP);
1.35	Dibutyl-phthalate (DBP), di(2-ethylhexyl)-phthalate (DEHP);
1.37	Ag, Al, Ba, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Zn, Ti, Sr, W
1.38	As, Ba, Be, Cd, Pb, Sb, Se, Sn, Tl, V
1.39	Ag, Al, Ba, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Zn, Ti, Sr, W
1.40	As, Ba, Be, Cd, Pb, Sb, Se, Sn, Tl, V
1.41	Ag, Al, Ba, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Zn, Ti, Sr, W
1.42	As, Ba, Be, Cd, Pb, Sb, Se, Sn, Tl, V
1.43	Benzene, toluene, o-xylene, m-xylene, p-xylene, ethylbenzene, chlorobenzene, p-dichlorobenzene, o-dichlorobenzene, chloroform, 1,2-cis-dichloroethene, 1,2-trans-dichloroethene, 1,2-dichloroethane, bromoform, dibromochloromethane, bromodichloromethane trichloroethene, tetrachloroethene, styrene, n-hexane, 1,1-dichloroethene, 1,1,1-trichloroethane, dichloromethane, tetrachloromethane, 1,4-dioxane (only in cosmetics) sum of BTX by calculation from the measured values
1.46	OCP: hexachlorobenzene, lindane, 4,4'-DDT, 4,4'-DDE, aldrin, metoxychlor, heptachlor

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal test number	Detailed information on activities within the scope of accreditation (determined analytes)
	PCB: congeners 28, 52, 101, 118, 138, 153, 180; sum of PCB by calculation from measured values
1.47	PAH: naphthalene, acenaphthene, acenaphthylene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, dibenzo[ah]anthracene, benzo[ghi]perylene, indeno[1,2,3-cd]pyrene sum of PAH by calculation from measured values
1.48	benzene, toluene, o-xylene, m-xylene, p-xylene, ethylbenzene, methanol, ethanol, isopropanol, n-propanol, isobutanol, n-butanol, 1-methoxy-2-propanol, methyl acetate, ethyl acetate, n-propylacetate, isobutyl acetate, n-butyl acetate, 2-butoxyethylacetate, acetone, ethylenoxide, methyl-iso-butyl ketone, ethyl methyl ketone, 1,1-dichloroethene, 1,2-cis-dichloroethene, 1,2-trans-dichloroethene, dichloromethane, 1,2-dichloroethane, chloroform, tetrachloromethane, trichloroethene, tetrachloroethene chlorobenzene, p-dichlorobenzene, o-dichlorobenzene, carbon disulphide, pentane, n-hexane, n-heptane, decane, phenol, 2-ethoxyethanol, 2-butoxyethanol, styrene, petrols, methane, methylmethacrylate, cyclohexane, trimethylbenzenes, tetrahydrofuran, 1,3-butadiene, sum of BTX by calculation from the measured values
1.53	Ag, Al, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Si, U, V, Zn, hardness (Ca + Mg)
1.54	Ag, Al, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Si, V, Zn
1.55	Ag, Al, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Si, V, Zn
1.56	Ag, Al, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, Si, V, Zn
1.62	Methanol, n-propanol, i-propanol, n-butanol, i-butanol, 2-butanol, acetone, acetaldehyde, amyl alcohols
1.63	Phthalates: dimethylphthalate, diethylphthalate, di-n-butylphthalate, butylbenzylphthalate, di-n-octylphthalate
1.66	Atrazin, simazin, terbutylazin, prometryn
1.67	Atrazin, simazin, terbutylazin, prometryn
1.69	oxygen, ozone, carbon monoxide, carbon dioxide, sulphur dioxide, hydrogen sulphide, methyl sulphide, nitrogen oxides, phenol, formaldehyde, 2-methyl-5-chloroaniline, 4-chloroaniline, aniline, azido hydrogen, phosgene, n-ethylaniline, nitrobenzene, o-dichlorobenzene
1.73	Carbonyl: formaldehyde, acetaldehyde, acrolein, propionaldehyde, acetone, butyraldehyde, benzaldehyde
1.74	PAH: naphthalene, acenaphthene, acenaphthylene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, dibenzo[ah]anthracene, benzo[ghi]perylene, indeno[1,2,3-cd]pyrene; sum of PAH by calculation from the measured values
1.75	Nitrogen monoxide, nitrogen dioxide
1.77	Diisocyanate: 2,4-toluendiisocyanate, 2,6-toluendiisocyanate, 1,6-hexymethylendiisocyanate, 4,4'-methylendiisocyanate
1.82	Organic acids: formic, lactic, acetic, propionic, butyric, valeric and citric acid
1.99	Morphine, codeine, morphine equivalent
1.122	Nitrogen monoxide, nitrogen dioxide

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

**Specification of the scope of accreditation:**

Ordinal test number	Detailed information on activities within the scope of accreditation (tested object)
1.1, 1.2, 1.3, 1.7, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.16, 1.17, 1.20, 1.22, 1.23, 1.24, 1.25, 1.26, 1.27, 1.28, 1.29, 1.30, 1.31, 1.33, 1.34, 1.44, 1.51, 1.52, 1.53, 1.57, 1.66, 1.76, 1.79, 1.80, 1.81, 1.86, 1.88, 1.89, 1.103, 1.104, 1.112, 1.113, 1.115, 1.117, 1.128, 2.16, 2.33, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9	Water – all types of water except bottled water and purified water according to Czech Pharmacopoeia, aqueous solutions
1.1, 1.2, 1.3, 1.6, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.17, 1.20, 1.22, 1.23, 1.24, 1.25, 1.26, 1.27, 1.28, 1.29, 1.30, 1.31, 1.34, 1.51, 1.52, 1.57, 1.76, 1.78, 1.79, 1.80, 1.81, 1.86, 1.88	Aqueous extracts – aqueous extracts and extracts within the scope of MoE and MoH Decree No. 8/2021 Coll. and MoE Decree No. 273/2021 Coll.
1.78, 1.79	Extracts – extracts in saline solutions for agricultural purposes
1.17, 1.20, 1.22	Acid extracts – acid extract for the purposes of MoE Decree No. 13/1994 Coll.
1.13, 1.14, 1.18, 1.21, 1.22, 1.51, 1.55, 1.70, 1.71, 1.72, 1.75, 1.89	Emissions, air – absorption solutions, condensates, filter extracts
1.28	Emissions – absorption solutions, condensates, filter extracts
1.19, 1.22, 1.39, 1.40, 1.50, 1.51, 1.55, 1.68, 1.70, 1.116	Air – filters, tubes with a solid sorbent
1.22, 1.39, 1.40, 1.51, 1.55, 1.70	Emissions – filters, tubes with a solid sorbent
1.22, 1.32, 1.36, 1.37, 1.38, 1.43, 1.45, 1.46, 1.47, 1.54, 1.91, 1.98	Solid materials – debris, building and metal materials, fertilizers, feeds, fuels, chemical raw materials, insulation materials, soils, sludge, sediments, waste, textiles
2.6, 2.7, 2.8, 2.12, 2.14, 2.15, 2.18, 2.19, 2.32, 2.33, 2.36	Spaces – smears and prints from surfaces, equipment and packaging, air samples (fall-outs, cups from an aeroscope)

**Sampling:**

Ordinal number	Sampling procedure name	Sampling procedure identification <sup>1</sup>	Subject of sampling
1	Sampling of water from water reservoirs	SOP VZ 01 (ČSN ISO 5667-4)	Surface water
2	Sampling of drinking and hot water and water used in production of food and beverages	SOP VZ 02 (ČSN EN ISO 19458; ČSN ISO 5667-5; reg. MoH Regulation No. 252/2004 Coll.)	Drinking and hot water
3	River and stream water sampling	SOP VZ 03 (ČSN EN ISO 5667-6)	Surface water

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number	Sampling procedure name	Sampling procedure identification <sup>1</sup>	Subject of sampling
4	Waste water and liquid waste sampling - manual and by automatic sampler	SOP VZ 04 (ČSN ISO 5667-10; ME Guideline No. 328/2018 Coll.)	Waste water, liquid waste
5	Ground water sampling from wells by submersible pump	SOP VZ 05 (ČSN ISO 5667-11)	Ground water
6	Bathing water sampling	SOP VZ 06 (reg. MoH No. 238/2011 Coll.; ČSN EN ISO 5667-1; ČSN EN ISO 19458)	Water from pools, saunas, artificial and natural bathing places
7	Sampling of soils, sediments, waste water treatment plant sludge and bitumen	SOP VZ 07 (ČSN 46 5331:1985; ČSN 01 5110; ČSN EN ISO 5667-12; ČSN EN ISO 5667-13)	Soils, sediments, sludge, bituminous materials
8	Sampling for the determination of dust content, aerosol particles, including asbestos and mineral fibres	SOP VZ 08 (ČSN EN 482; ČSN EN 689+AC; ČSN EN ISO 16000-1; ČSN EN ISO 16000-7; Gov. reg. no. 361/2007 Coll., Annex no. 3; Regulation No. 6/2003 Coll.; VDA 19.1; VDA 19.2)	Working environment, indoor environment of buildings, air
9	Sampling for the determination of gases and vapours	SOP VZ 09 (ČSN EN 482; ČSN EN 689+AC; Government Reg. No. 361/2007 Coll., Annex No. 2; Regulation No. 6/2003 Coll.; ČSN EN ISO 16000-1)	Working environment, indoor environment of buildings, air
10	Air sampling into bags	SOP VZ 10 (ČSN EN 482+A1; ČSN EN 689+AC; ČSN EN 13725)	Emissions
11	Gas and vapour sampling by absorption into liquid	SOP VZ 11 (ČSN 83 4728; ČSN EN ISO 21877; ČSN 83 4712; ČSN P CEN/TS 17340; ČSN 83 4711; ČSN 83 4751-4; ČSN EN 1911; ČSN EN 13211; ČSN 83 4721)	Emissions

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal number	Sampling procedure name	Sampling procedure identification <sup>1</sup>	Subject of sampling
12	Sampling of persistent organic substances by filtration-condensation method	SOP VZ 12 (ČSN EN 1948-1; ČSN EN 1948-4+A1)	Emissions
13	Sampling of substances by catching on a solid sorbent	SOP VZ 13 (ČSN P CEN/TS 13649; ČSN EN ISO 16017-1)	Emissions
14	Sampling of particulate pollutants, aerosols and substances fixed to them, including metals (sampling with automatic or manual isokinetic control)	SOP VZ 14 (ČSN EN 13284-1; ČSN EN 14385; ČSN EN 13211)	Emissions
15	Sampling of materials from heaps and containers	SOP VZ 15 (MP ME March 2008; TNI CEN/TR 15310)	Solid materials (heaps, containers)
16	Sampling of soil air using driving probes and sampling bell	SOP VZ 16 (ČSN EN ISO 10715; MP ME 2012 – Contamination indicators; Sampling of soil air soils for stan. TOL –VŠCHT Praha - Skripta Janků, Čermák 1992)	Soil air, biogas
17	Sampling of air on culture medium for microbiological determinations	SOP VZ 17 (Regulation No. 6/2003 Coll.; AHEM 1/2002)	Working environment, indoor environment of buildings, air
18	Sampling of pressure gas for the purpose of checking its quality	SOP VZ 18 (ČSN ISO 8573 část 1-8)	Pressure gas
19	Sampling by smear method for microbiological and other tests	SOP VZ 19 (ČSN EN ISO 18593; NIOSH 9102)	Walls, surfaces

<sup>1</sup> if the document identifying the sampling procedure is dated, only these specific procedures are used. If the document identifying the sampling procedure is not dated, the latest edition of the specified procedure is used (including any changes)

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

**2. Workplace Pardubice**

**Tests:**

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
1	Determination of nitrocompounds by GC-MS method	SOP ZP 3 (EPA 8270E)	Surface and waste water	A, B, D
2	Determination of volatile organic compounds by GC-MS method	SOP ZP 4 (ČSN 75 7550:1992; EPA 624)	Surface and waste water	A, B, D
3	Determination of phenolic compounds by GC-MS method	SOP ZP 6 (EPA 8270E; Turnes I., Rodriguez I., Garcia C.M., Cela R.: J.Chromatogr. A, 743, page 283-292, 1996)	Surface and waste water	A, B, D
4	Determination of specified aromatic amino compounds by GC-MS method	SOP ZP 11 (EPA 8270E)	Surface and waste water	A, B, D
5	Determination of certain chlorinated hydrocarbons by GC-MS method	SOP ZP 7 (EPA 8080; ČSN EN ISO 6468)	Surface and waste water	A, B, D

<sup>1</sup> asterisk at the ordinal number identifies the tests, which the laboratory is qualified to carry out outside the permanent laboratory premises; the numerical index at the test ordinal number identifies the location carrying out the test (the identification of the locations is given on the first page of this document)

<sup>2</sup> if the document identifying the test procedure is dated, only these specific procedures are used. If the document identifying the test procedure is not dated, the latest valid edition of the specified procedure is used (including any changes)

<sup>3</sup> degrees of freedom: A – Flexibility concerning materials/products (subject of the test), B – Flexibility concerning components/parameters/characteristics, C – Flexibility concerning the performance of the method, D – Flexibility concerning the method

The laboratory can modify the test procedures with the specified degree(s) of freedom in the scope of accreditation while maintaining the principle of measurement. If no degree of freedom is specified, the laboratory cannot apply a flexible approach to the scope of accreditation for the test.

**Specification of the scope of accreditation:**

Ordinal test number	Detailed information on activities within the scope of accreditation (determined analytes)
1	nitrobenzene, o-nitrotoluene, m-nitrotoluene, p-nitrotoluene, 2,4,- dinitrotoluene, 2,6-dinitrotoluene, 1-chloro-2-4-dinitrobenzene
2	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-dichlorobenzene, p-dichlorobenzene, o-dichlorobenzene, o-chlorotoluene, 1,2,3-trichlorobenzene, 1,3,5-trichlorobenzene, 1,2,4-trichlorobenzene, undecane,

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

Ordinal test number	Detailed information on activities within the scope of accreditation (determined analytes)
	1,2,-trans-dichloroethene, 1,1-trans-dichloroethene, hexachlorobutadiene, dichloromethane, ethylacetate, naphthalene
3	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
4	aniline, o-chloroaniline, m-chloroaniline, p- chloroaniline, 2,4,6-trimethylaniline, 4-fluoroaniline, 2,5-dichloroaniline, 3,4-dichloroaniline, N-ethylaniline
5	$\alpha$ - hexachlorocyclohexane, $\beta$ – hexachlorocyclohexane, pentachlorobenzene

**Explanations:**

Emissions	Waste gas containing pollutants, which is released in a controlled way or leaks into atmosphere from air pollution sources
Air	working air, outdoor air, indoor air
Compressed gas	Compressed gas in air distribution and air handling ducts, gas in pressure cylinders, biogas
AAS	Atomic Absorption Spectrometry
AMA	Advanced Mercury Analyzer
AMPA	$\alpha$ -amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid
AOX	Halogenated Organic Compounds
BOD <sub>5</sub>	Biochemical Oxygen Demand
CFA	Continuous Flow Analysis
DOC	Dissolved Organic Carbon
EOX	Extractable Organic Halogens
FOS	Volatile Organic Acids
FTIR	Fourier Transformation Infrared Spectroscopy
GC-ECD	Gas Chromatography with Electron Capture Detector
GC-FID/ECD/MS/TCD	gas chromatography with flame ionisation detector/electron capture detector/mass detection/thermal conductivity detector
HPLC-UV/FLD/DAD	high performance liquid chromatography with UV detector/fluorescence detector/diode array detector
COD <sub>Cr</sub>	Chemical Oxygen Demand using dichromate
COD <sub>Mn</sub>	Chemical Oxygen Demand using permanganate
ICP-OES	Inductively Coupled Plasma Optical Emission Spectrometry
ISE	Ion Selective Electrode
ITP	Isotachopheresis
ANC	Acid Neutralizing Capacity
NDIR	Selective infrared absorption
ORP	Oxidation-Reduction Potential

**The Appendix is an integral part of  
Certificate of Accreditation No. 53/2024 of 05/02/2024**

**Accredited entity according to ČSN EN ISO/IEC 17025:2018:**

**EMPLA AG spol. s r.o.**  
CAB number 1110, EMPLA Ecological Laboratories  
Za Škodovkou 305/5, Kukleny, 503 11 Hradec Králové

PBU	Consumer goods
PCB	Polychlorinated Biphenyls
PCDD/F	Polychlorinated dibenzo-p-dioxins and dibenzofurans
DIS	Dissolved Inorganic Salts
TAC	Buffer Capacity
TOC	Total Organic Carbon
BNC	Base Neutralizing Capacity