



#### EA MLA Signatory Český institut pro akreditaci, o.p.s. (Czech Accreditation Institute) Hájkova 2747/22, Žižkov, 130 00 Praha 3

issues

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

## CERTIFICATE OF ACCREDITATION

No. 204/2025

ABITEC, s.r.o. with registered office V háji 1183/22, Holešovice, 170 00 Praha 7 Company Registration No. 28430671

for the Testing Laboratory No. **1498**Testing Laboratory

Scope of accreditation:

Chemical tests, microbiological tests and ecotoxicity tests, including sampling 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 17025:2018

In its activities performed within the scope and for the period of validity of this Certificate, the abovementioned Accredited Body is entitled to refer to this Certificate, provided that the accreditation is not suspended and the Accredited 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.: 672/2022 of 28/12/2022, and/or any administrative acts building upon it.

The Certificate of Accreditation is valid until: 05/05/2030

Prague: 05/05/2025





Signed in the Czech original: Zdeňka Drdová on 05/05/2025

Jan Velíšek
Director of the Department
of Testing and Calibration Laboratories
Czech Accreditation Institute

This translation of the Czech original has been issued by: Eliška Frycová

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

#### ABITEC, s.r.o.

CAB number 1498, Testing Laboratory Radiová 1285/7, 102 00 Praha 10

The laboratory provides opinions and interpretations of the test results.

The laboratory is qualified to carry out standalone sampling.

Detailed information on activities within the scope of accreditation (tested subject / source literature) is given in the section "Specification of the scope of accreditation".

#### **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	Daphnia magna mobility inhibition test	SOP 1.1 (ČSN EN ISO 6341; OECD 202)	Water, extract, substance	-
2	Freshwater algal growth inhibition test	SOP 1.2 (ČSN EN ISO 8692; OECD 201)	Water, extract, substance	-
3	Root growth inhibition test of monocotyledonous and dicotyledonous plants	SOP 1.5 (Ministry of Environment Bulletin, Volume XVII, No. 4/2007)	Water, extract, substance	-
4	Determination of the inhibitory effect of samples on the light emission of <i>Aliivibrio fischeri</i>	SOP 1.8 (ČSN EN ISO 11348-2; ČSN EN ISO 11348-3)	Water, extract, substance	-
5	Four-day respiratory activity test AT <sub>4</sub> – manometric respirometry	SOP 1.9 (Önorm S 2027-4)	Compost, substrate, soil, waste, building material	-
6	Determination of microbial soil respiration by manometric respirometry (basal and substrate induced respiration)	SOP 1.16 (ČSN EN ISO 16072; ČSN EN ISO 17155)	Compost, substrate, soil, waste	-
7	Determination of microbial respiration of water by manometric respirometry (basal and substrate induced respiration)	SOP 1.17 (ČSN EN ISO 16072; ČSN EN ISO 17155)	Water, extract, culture medium	-
8	Determination of residual biogas production by manometric respirometry	SOP 1.18 (Ministry of Environment Bulletin, Volume XIX, No. 3/2009; ČSN EN ISO 11734)	Digestate, substance	-
9	Determination of inhibition of plant root growth <i>Lactuca sativa</i>	SOP 1.6 (ČSN EN ISO 11269-1)	Soil, sediment, sludge, waste, substance, construction product	-
10	Test of inhibition of reproduction of Collembola <i>Folsomia candida</i>	SOP 1.12 (ČSN EN ISO 11267; OECD 232)	Soil, sediment, sludge, waste, substance, construction product	-

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Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
11	Test of inhibition of reproduction of Enchytraeidae <i>Enchytraeus</i> crypticus	SOP 1.13 (ČSN EN ISO 16387; OECD 220)	Soil, sediment, sludge, waste, substance, construction product	-
12	Determination of inhibition of nitrification – Rapid test by ammonium oxidation	SOP 1.14 (ČSN EN ISO 15685)	Soil, sediment, sludge, waste, construction product, extract, substance	-
13	Determination of the inhibitory effects on the light emission of <i>Aliivibrio fischeri</i> (kinetic luminescent bacteria test)	SOP 1.11 (ČSN ISO 21338)	Soil, sediment, sludge, waste, construction product, water, extract, substance	-
14	Evaluation of ultimate aerobic biodegradability of organic compounds in aqueous medium by manometric respirometry	SOP 1.21 (OECD 301F; ČSN EN ISO 9408)	Water, extract, substance	-
15	Enumeration of thermotolerant coliform bacteria and <i>E.coli</i> by spread plate method	SOP 3.21 (TNI CEN/TR 16193; AHEM No. 7/2001; AHEM No. 1/2008)	Sludge, sands, soil, waste, substrate, compost	-
16	Enumeration of intestinal streptococci (enterococci) by spread plate method	SOP 3.22 (AHEM No. 7/2001; AHEM No. 01/2008)	Sludge, sands, soil, waste, substrate, compost	-
17	Detection of Salmonella by spread plate method	SOP 3.24 (AHEM No. 7/2001; AHEM No. 1/2008)	Sludge, sands, soil, waste, substrate, compost	-
18	Enumeration of total aerobic heterotrophic bacteria at 20 °C by pour plate method	SOP 3.25 (ČSN 75 7842)	Sludge, sands, soil, waste, substrate, compost, building material	-
19	Enumeration of total bacteria decomposing petroleum hydrocarbons by spread plate method	SOP 3.26	Sludge, sands, soil, waste, substrate, compost, building material	-
20	Enumeration of total anaerobic bacteria by pour plate method	SOP 3.27 (ČSN 75 7841)	Sludge, sands, soil, waste, substrate, compost, building material	-
21	Enumeration of culturable microorganisms at 22 °C and 36 °C by pour plate method	SOP 3.30 (ČSN EN ISO 6222)	Water	-
22	Enumeration of <i>Escherichia coli</i> and coliform bacteria by membrane filtration method	SOP 3.32 (ČSN EN ISO 9308-1)	Water	-

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Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
23	Enumeration of coliform bacteria in non-disinfected water by membrane filtration method	SOP 3.33 (ČSN 75 7837)	Water	-
24	Enumeration of thermotolerant coliform bacteria and <i>Escherichia coli</i> by membrane filtration method	SOP 3.34 (ČSN 75 7835)	Water	-
25	Enumeration of intestinal enterococci by membrane filtration method	SOP 3.35 (ČSN EN ISO 7899-2)	Water	-
26	Enumeration of total aerobic heterotrophic bacteria at 20 °C by pour plate method	SOP 3.36 (ČSN 75 7842)	Water	-
27	Enumeration of total bacteria decomposing petroleum hydrocarbons by spread plate method	SOP 3.37	Water	-
28	Enumeration of total anaerobic bacteria by pour plate method	SOP 3.38 (ČSN 75 7841)	Water	-
29	Determination of sulphate- reducing bacteria by MPN method	SOP 3.31, part A (ASTM D4412-19)	Water, water sediment	-
30	Method for the detection of sulphate-reducing bacteria	SOP 3.31, part B (ASTM D4412-19)	Water, water sediment	-
31	Method for the detection of Salmonella by spread plate method	SOP 3.42 (ČSN ISO 19250)	Water	-
32	Determination of non-ionogenic surfactants by spectrophotometry with the usage of Merck's set Spectroquant, standard Triton X-100	SOP 2.6, part A (Merck company manual)	Water, extract -	
33	Determination of non-ionogenic surfactants by spectrophotometry with the usage of Merck's set Spectroquant, standard ABI-REM	SOP 2.6, part B - 2 (Merck company manual)	Water, extract -	
34	Determination of dry matter – gravimetric method	SOP 2.2 (ČSN ISO 11465; ČSN EN 15934)	Soil, sediment, sludge, waste, construction product, sands, substrate, compost, building material	-
35	Determination of pH – potentiometrically	SOP 2.3 (ČSN ISO 10523)	Water, extract	-

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Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
36	Determination of pH – potentiometrically	SOP 2.3 (ČSN EN ISO 10390)	Soil, waste, sediment, sludge, substrate, compost, building material	-
37	Determination of electrical conductivity	SOP 2.4 (ČSN EN 27888)	Water, extract	-
38	Determination of nitrite nitrogen spectrophotometrically and of nitrite by calculation from measured values	SOP 2.7 (ČSN EN 26777)	Water, extract	-
39	Determination of nitrate spectrophotometrically and of nitrate nitrogen by calculation from measured values	SOP 2.8 (ČSN ISO 7890-3)	Water, extract	-
40	Determination of ammonia nitrogen spectrophotometrically and of ammonium by calculation from measured values	SOP 2.10 (ČSN ISO 7150-1)	Water, extract	-
41	Determination of orthophosphate phosphorus spectrophotometrically and of orthophosphate by calculation from measured values	SOP 2.11 (ČSN EN ISO 6878)	Water, extract	-

asterisk at the ordinal number identifies the tests, which the laboratory is qualified to carry out outside the permanent laboratory premises

#### **Specification of the scope of accreditation:**

Ordinal test number	Detailed information on activities within the scope of accreditation (tested subject)	
1, 2, 3, 4, 7, 14, 21-33, 35, 37-41	Water: underground, drinking, raw, surface, waste, industrial, bathing water	
1, 2, 3, 4, 7, 14, 21-33, 35, 37-41	Extract: extract of solid sample, furthermore according to the ČSN EN 1783, ČSN EN 12457-2, ČSN EN 12457-4, AHEM No. 3/2001	
1, 2, 3, 4, 8-14	Substance: according to the definition according to Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the registration, evaluation, authorisation and restriction of chemicals	
5, 6, 9 - 13, 15-20, 34, 36	Soil: definition according to the ČSN EN ISO 14688-1, soil treated according to the Regulation. No. 257/2009 Coll., Regulation No. 273/2021 Coll., Regulation No. 8/2021 Coll.	

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>&</sup>lt;sup>3</sup> the laboratory does not apply a flexible approach to the scope of accreditation

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Ordinal test number	Detailed information on activities within the scope of accreditation (tested subject)
5, 6, 9-13, 15- 20, 34, 36	Waste, compost: according to the definition according to the Act No. 541/2020 Coll., Act on Waste, waste treated according to the Regulation No. 257/2009 Sb., Regulation No. 273/2021 Coll., Regulation No. 8/2021 Coll.
9-13, 34, 36	Sediment: definition according to the Act No. 541/2020 Coll., Act on Waste, sediment treated according to Regulation No. 257/2009 Coll.
8	Digestate: solid or liquid material resulting from anaerobic digestion during biogas production (i.e. production by controlled microbial transformation of organic substances from biologically decomposable wastes in the absence of oxygen)
9-13, 15-20, 34, 36	Sludge: definition according to the Act No. 541/2020 Coll., Act on Wastes , sludge, treated sludge, sewage sludge, verifying of efficiency of sludge hygienization according to the Regulation No. 273/2021 Coll., on details of waste management
29, 30	Water borne sediment: any accumulation of water-borne suspended solids or solids from surface in contact with water. It can be also classified as scale, sludge, corrosion and sediment
5, 18-20, 34, 36	Building materials: materials from construction (demolished material, recycled material, discarded building materials)

### Specification of the scope of accreditation:

Ordinal test number	Detailed information on activities within the scope of accreditation (source literature)	
3	Ministry of Environment Bulletin, Volume XVII, No. 4/2007: Guideline of the Waste Department for the determination of waste ecotoxicity. In Czech.	
8	Ministry of Environment Bulletin, Volume XIX, No. 3/2009: Test method for the determination of residual biogas production in digestate. In Czech.	
19, 27	Häusler J. (1995): <i>Mikrobiologial cultivation methods for the water quality testing</i> , Part III. Determination of microbiological indicators, ISBN 80-7084-107-9, Prague, In Czech.	
20, 28	Ambrožová J. (2004): Mikrobiology in water technology, ISBN 80-7080-534-X, UCT Prague, In Czech.	

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#### **Sampling:**

Ordinal number	Sampling procedure name	Sampling procedure identification <sup>1</sup>	Subject of sampling
1	Sampling of wastes	SOP 5.1 (ČSN EN 14899; ČSN EN ISO 5667-1; ČSN ISO 5667-11; ČSN ISO 5667-12; ČSN EN ISO 5667-13; ČSN EN ISO 5667-16; ČSN EN ISO 5667-16; ČSN 01 5111; ČSN 01 5112; ČSN EN ISO 5555; ČSN 46 5735; 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; Regulation No. 273/2021 Coll., Regulation No. 8/2021 Coll., Ministry of Environment Bulletin, Volume XVIII, No. 3/2008; Ministry of Environment Bulletin, Volume XVIII, No. 4/2008; Ministry of Environment Bulletin, Volume XVIII, No. 2/2007; Ministry of Environment Bulletin, Volume XVII, No. 2/2007; Ministry of Environment Bulletin, Volume XIV, No. 1/2014)	Solid, pasty and liquid wastes, soils, sludges, sediments, fly ashes, composts
2	Sampling of sediments and sludge	SOP 5.2 (ČSN EN ISO 5667-1; ČSN ISO 5667-12; ČSN EN ISO 5667-13; ČSN EN ISO 5667-14; ČSN EN ISO 5667-15; Regulation No. 273/2021 Coll.; Regulation No. 257/2009 Coll.)	Sediments, sludges
3	Sampling of soils	SOP 5.3 (ČSN EN ISO 5667-1; Regulation No. 275/1998 Coll.; Regulation No. 153/2016 Coll.)	Soils

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 valid edition of the specified procedure is used (including any changes)

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#### **Explanatory notes:**

AHEM Acta hygienica, epidemiologica et microbiologica

ASTM American Society for Testing and Materials – American Technical Standards

MPN Most probable number method

Önorm Austrian standard

<sup>&</sup>quot;This document is an appendix to the certificate of accreditation. In case of any discrepancies between the English and Czech versions, the Czech version shall prevail, both for the certificate appendix and the certificate itself."