DAkkS
Deutsche
Akkreditierungsstelle

Accreditation

The Deutsche Akkreditierungsstelle attests with this **Accreditation Certificate** that

CR3-Analytik GmbH & Co. KG
Waterbergstraße 14, 28237 Bremen

operates a testing laboratory that fulfills the requirements according to DIN EN ISO/IEC 17025:2018 for those conformity assessment activities specified in detail in the annexes listed below. This includes additional existing legal and normative requirements for the testing laboratory including those in relevant sectoral schemes, provided that these are explicitly confirmed in the annexes listed below.

D-PL-21721-01-01 **Valid from: 20.04.2026**
D-PL-21721-01-02 **Valid from: 20.04.2026**

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories and they conform to the principles of DIN EN ISO 9001.

This accreditation was issued in accordance with Art. 5 Para. 1 Sentence 2 of Regulation (EC) 765/2008, after an accreditation procedure was carried out in compliance with the minimum requirements of DIN EN ISO/IEC 17011 and on the basis of a review and decision of the appointed accreditation committees.

This accreditation certificate only applies in connection with the notice of Datum wählen. It consists of this cover sheet, the reverse side of the cover sheet and the corresponding annex

Registration number of the accreditation certificate: **D-PL-21721-01-00**

Berlin, 20.04.2026 Barbara Tyralla | Head of Technical Unit

Translation issued: 21.05.2026

This accreditation certificate was issued by the Deutsche Akkreditierungsstelle GmbH (DAkkS). It is digitally sealed and valid without signature. It reflects the status as indicated by the date of issue. The current status of any valid and surveyed accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH (www.dakks.de).

This document is a translation. The definitive version is the original German accreditation certificate.

See notes overleaf

Deutsche Akkreditierungsstelle GmbH

Office Berlin
Spittelmarkt 10
10117 Berlin

The Deutsche Akkreditierungsstelle GmbH (DAkkS) is the entrusted national accreditation body of the Federal Republic of Germany according to § 8 section 1 AkkStelleG in conjunction with § 1 section 1 AkkStelleGBV. DAkkS is designated as the national accreditation authority by Germany according to Art. 4 Para. 4 of Regulation (EC) 765/2008 and clause 4.7 of DIN EN ISO/IEC 17000.

Pursuant to Art. 11 section 2 of Regulation (EC) 765/2008, the accreditation certificate shall be recognised as equivalent by the national authorities within the scope of this Regulation as well as by the WTO member states that have committed themselves in bilateral or multilateral mutual agreements to recognise the certificates of accreditation bodies that are members of ILAC or IAF as equivalent.

DAkkS is a signatory to the multilateral agreements for mutual recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Co-operation (ILAC).

The up-to-date state of membership can be retrieved from the following websites:
EA: www.european-accreditation.org
ILAC: www.ilac.org
IAF: www.iaf.nu

This accreditation certificate is the property of the German Accreditation Body

Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-PL-21721-01-02 according to DIN EN ISO/IEC 17025:2018

Valid from: **20.04.2026**

Date of issue: 20.04.2026

This annex is part of the Accreditation Certificate D-PL-21721-01-00.

Holder of the Accreditation Certificate:

CR3-Analytik GmbH & Co. KG
Waterbergstraße 14, 28237 Bremen

with the location

CR3-Analytik GmbH & Co. KG
Waterbergstraße 14, 28237 Bremen

The testing laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The testing laboratory meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed below.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories and they conform to the principles of DIN EN ISO 9001.

This annex to the certificate was issued by the Deutsche Akkreditierungsstelle GmbH (DAkkS) and is digitally sealed.
This annex to the certificate is only valid together with the written accreditation certificate and reflects the status as indicated by the date of issue. The current status of any valid and surveyed accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH (www.dakks.de).

This document is a translation. The definitive version is the original German annex to the accreditation certificate.

Tests in the fields:

selected physical, physico-chemical, chemical and microbiological analyses of water (drinking water, process water, industrial water, waste water and surface water);
sampling of drinking water, waste water and surface water;
sampling and microbiological analyses of industrial water in accordance with section 3 (8) 42nd BImSchV (Federal Emission Control Act)
Flexible Scope of Accreditation:
The testing laboratory is permitted, without the need for prior notification to or approval by DAkkS, to use the standardised test methods listed here, or equivalent test methods, with different issue dates (flexibility under Category A).

Within the indicated test areas the testing laboratory is permitted without being required to prior inform and obtain approval from DAkkS
[Flex B] to have the free choice from standardised or equivalent test methods.
[Flex C] to modify, develop or further develop test methods.
The testing laboratory has an up-to-date list of all test methods within the flexible scope of accreditation. The list is publicly available on the website of the testing laboratory.

1 Analyses of water (drinking water, process water, industrial water, waste water and surface water)

1.1 Sampling

DIN 38402-A 11 2009-02	Sampling of waste water
DIN 38402-A 12 1985-06	Sampling from still waters (restriction*: only sampling of near-shore scoop samples*)
DIN ISO 5667-5 (A 14) 2011-02	Water quality – Sampling – Part 5: Guidance on sampling of drinking water from treatment works and piped distribution systems
DIN EN ISO 19458 (K 19) 2006-12	Water quality; Sampling for microbiological analyses

1.2 Physical and physico-chemical parameters

DIN 38404-C 4 1976-12	Determination of temperature
DIN EN ISO 10523 (C 5) 2012-04	Water quality – Determination of pH

DIN EN 27888 (C 8) 1993-11	Water quality – Determination of electrical conductivity
DIN EN ISO 7027-1 (C 21) 2016-11	Water quality – Determination of turbidity - part 1: quantitative method
DIN EN ISO 9963-1 (C 23) 1996-02	Water quality – Determination of alkalinity - part 1: determination of total and composite alkalinity
DIN EN ISO 9963-2 (C 24) 1996-02	Water quality – Determination of alkalinity – part 2: determination of carbonate alkalinity
DEV D 8 1971	Calculation of dissolved carbon dioxide (of free carbonic acid), carbonate and hydrogen carbonate ion
In-house method L 0024 2021-01	Determination of the density of liquids by the bending vibration measurement method (restriction: *here only for water)*

1.3 Determination of anions and cations by photometry [Flex B]

NANOCOLOR ® Ammonium 3 Test 0-03; 12.16 REF 985003 2023-07	Photometric determination of Ammonium as indophenol (measuring range: 0.05-3.00 mg/L NH_4^+/NH_3)
NANOCOLOR ® Iron 3 Test 0-37 REF 985037 2024-01	Photometric determination with diphenylpyridyl triazine (measuring range: 0.10-3.00 mg/L Fe)
NANOCOLOR ® Nitrate 50 Test 0-64; 10.18 REF 985064 2024-10	Photometric determination of nitrate with 2,6-dimethylphenol in sulfuric acid - phosphoric acid - mixture (measuring range: 2-100 mg/L NO_3^-)
NANOCOLOR ® ortho- and total Phosphate 1 Test 0-76 REF 985 076 2024-01	Photometric determination of phosphate as molybdenum blue after acid hydrolysis and oxidation at 100 - 120 °C (measuring range: 0.05-1.50 mg/L P (PO_4-P))

NANOCOLOR ® Chloride Test 1-20 REF 91820 2022-03	Photometric determination with mercury(II)-thiocyanate und iron(III)-nitrate (measuring range: 0.2-20.0 mg/L Cl^-)
Spectroquant ® Sulfate cell test Product no.: 1.14548.0001 2024-05	Photometric determination of sulfate (measuring range: 5 - 250 mg/L SO_4^{2-})
VISCOLOR ® ECO Chlorine dioxide Product no.: 931221 / 931021	Photometric determination of chlorine dioxide (measuring range: 0.20 – 3.80 mg/L ClO_2)

1.4 Cations

DIN 38406-E 3 2002-03	Determination of calcium and magnesium, complexometric method
DIN EN ISO 12846 (E 12) 2012-08	Water quality - Determination of mercury by atomic absorption spectrometry (AAS) with and without enrichment
DIN EN ISO 11885 (E 22) 2009-09	Water quality - Determination of selected elements by inductively coupled plasma atomic emission spectroscopy (ICP-OES)
In-house method L 0047 2021-01	Determination of the iron binding capacity of boiler protection solution using gravimetry (restriction: here only for water)

1.5 Determination of volatile halogenated hydrocarbons by gas chromatography using conventional detectors [Flex B]

DIN EN ISO 10301 (F 4) 1997-08	Water quality - Determination of highly volatile halogenated hydrocarbons - Gas-chromatographic methods (restriction: *here only for dichloromethane*)

1.6 Gaseous components

DIN ISO 17289 (G 25) 2014-12	Water quality - Determination of dissolved oxygen - Optical sensor method

1.7 Summary performance and material parameters

DIN 38409-H 1 1987-01	Determination of total dry residue, filtrate dry residue and residue on ignition
DIN 38409-H 2 1987-03	Determination of filterable matter and the residue on ignition
DIN 38409-H 6 1986-01	Water hardness
DIN 38409-H 7 2005-12	Determination of acid and base capacity
DIN ISO 15705 (H 45) 2003-01	Water quality - Determination of the chemical oxygen demand index (ST-COD) - small-scale sealed tube method
KORN-Method Rev 1 2018-05	Determination of excess of DEMKOR® products – Photometric measurement of oxidisability following the addition of indicator reagents

1.8 Determination of volatile compounds using conductivity detection [Flex C]

In-house method L 0001 2025-01	Continuous dichloromethane online monitoring in cooling waters using a strip process with subsequent UV mineralization and conductivity detection

1.9 Determination of bacteria by cultural microbiological analyses [Flex B]

DIN EN ISO 6222 (K 5) 1999-07	Water quality - Enumeration of culturable micro-organisms - Colony count by inoculation in a nutrient agar culture medium
DIN EN ISO 16266 (K 11) 2008-05	Water quality - Detection and enumeration of Pseudomonas aeruginosa - Method by membrane filtration (modification: *also suitable for water with higher levels of contamination*)
DIN EN ISO 11731 (K 23) 2019-03	Water quality - Enumeration of Legionella

2 Sampling and microbiological analyses of industrial water in accordance with Section 3 (8) 42nd BImSchV (Federal Emission Control Act)

Sampling

Verfahren	Titel
DIN EN ISO 19458 (K 19) 2006-12	Water quality - Sampling for microbiological analyses
	Recommendation of the Federal Environmental Agency for the sampling and detection of Legionella in evaporative cooling plants, cooling towers and wet separators dated 06.03.2020, Sections C and D

Microbiological analyses

Parameter	Verfahren
Legionella	DIN EN ISO 11731 (K 23) 2019-03
	Recommendation of the Federal Environmental Agency for the sampling and detection of Legionella in evaporative cooling plants, cooling towers and wet separators dated 06.03.2020, Sections E and F taking into account Annexes 1 and 2
Colony count at 22 °C and 36 °C	DIN EN ISO 6222 (K 5) 1999-07

Abbreviations used:

BImSchV	Ordinance on the Implementation of the Federal Immission Control Act
DIN	Deutsches Institut für Normung e.V. – German institute for standardization
EN	Europäische Norm – European Standard
In-house method L XXXX	In-house method of CR3-Analytik GmbH & Co. KG
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
UBA	Umweltbundesamt - Federal Environmental Agency (Umweltbundesamt)

CR3 ANALYTIK

List of testing methods within the flexible scope of accreditation

List of currently applied accredited testing methods according to the partial accreditation certificate D-PL-21721-01-02. Changes that deviate from the latest annex to the accreditation certificate from 20.04.2026 are marked ( ).

1. Analyses of water (drinking water, process water, industrial water, waste water and surface water)

1.1. Sampling

DIN 38402-A 11 2009-02	Sampling of waste water
DIN 38402-A 12 1985-06	Sampling from still waters (restriction*: only sampling of near-shore scoop samples*)
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VISCOLOR ® ECO Chlorine dioxide Product no.: 931221 / 931021	Photometric determination of chlorine dioxide (measuring range: 0.20 – 3.80 mg/L ClO_2)

1.4. Cations

DIN 38406-E 3 2002-03	Determination of calcium and magnesium, complexometric method
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Sampling

Method	Title
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	Recommendation of the Federal Environmental Agency for the sampling and detection of Legionella in evaporative cooling plants, cooling towers and wet separators dated 06.03.2020, Sections C and D

Microbiological analyses

Parameter	Method
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