



## List of Analytics and Laboratory services

(Status: 01.01.2025)

Our analytics department at InfraLeuna GmbH is a testing laboratory accredited by DAkkS in accordance with DIN EN ISO/IEC 17025. The accreditation applies to the test methods listed in the accreditation certificate.

Our analytics department at InfraLeuna GmbH is a drinking water testing laboratory listed by the State Office for Consumer Protection of Saxony-Anhalt for physical, physico-chemical, chemical and microbiological drinking water testing.

Our analytics department is accredited for sampling and analysis in accordance with the 42nd BImSchV 2017 (Ordinance on Evaporative Cooling Systems and Wet Separators).

Our analytics department at InfraLeuna GmbH is certified in accordance with ISO 9001, ISO 14001, ISO 45001 and ISO 50001.

### Competence

We are your competent partner for analytical problems in water, wastewater, product and coating analysis. Our close proximity to your plants and our many years of experience in the analytical monitoring of industrial plants for water treatment, wastewater treatment, energy and steam generation and cooling circuits mean that you can benefit from many advantages.

Our range of services includes almost all standard methods of water and wastewater analysis, inorganic and organic trace analysis and microbiology. Suitable analysis methods can be specifically selected to solve your problem. The results are sent to you after a short processing time. Our modern laboratory information and management system offers the option of compiling the analysis results in a test report or in tabular form and sending them to you by e-mail. In the event of limit violations, you will be notified immediately by e-mail on request.

Our range of services also includes the assumption of complex laboratory analytical monitoring tasks as part of the process management of your systems, from sampling to the daily transmission of results.

- Department of Analytics •
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  - www.infraleuna.de •





### Contact persons and areas of work

Service telephone

Head of the Analytics department

Customer and sample management

Sampling, on-site analysis

Chromatography, IR spectroscopy

Element analysis

Microbiology

Wastewater analysis

Classic water analysis

customized solutions

LIMS

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# Fields of activity

Process-accompanying analysis and analytical monitoring of quality parameters:

- Industrial water treatment
  - Fresh water and process water treatment
  - Condensate and feed water treatment
  - e.g. analytical monitoring of decarbonization, flocculation,
  - reverse osmosis, demineralization, ion exchangers
- Energy generation plants and steam generators
  - Monitoring of water-steam circuits in accordance with VGB and VdTÜV guidelines
  - Ultrapure water analysis
  - Flue gas desulphurization, FGD gypsum (in accordance with VGB-M 701)
- Cooling cycles
  - Cooling water treatment, cooling water conditioning
  - Microbiological analysis in cooling circuits
  - e.g. sampling and microbiological analysis of process water in accordance with 42nd BImSchV
- Waste water treatment
  - Wastewater declaration analyses
  - Control of wastewater discharges in accordance with official requirements
  - Monitoring of biological wastewater treatment plants
- Drinking water analysis, hot water systems

(chemical, physical-chemical, microbiological)

- Drinking water treatment, distribution networks
- Domestic installations
- Line approvals
- Groundwater analysis
  - Groundwater purification plants
  - Groundwater level networks
  - Landfill leachate
- Verification of operational measuring devices by laboratory measurements and
- On-site control measurements with mobile test equipment
- Production of customized solutions and standards for industrial measuring instruments
- Composition of deposits in industrial plants

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# Range of services

With our qualified employees in close proximity to our customers, we offer you the guarantee of reliable, competent and long-term cooperation at a high professional level. Our modern equipment enables us to offer you a comprehensive range of parameters for a wide variety of sample matrices.

#### • Sampling

- drinking water
- cooling water
- waste water
- groundwater

#### • Elemental analysis

- Elemental analysis (C, S)
- Determination of elements using atomic spectroscopy (e.g. Ca, Mg, Na, K, Ba,

Sr, Pb, Cd, Cr, Cu, Ni, Zn, As, Se, Sb, Ti, V, Mn, Mo, Pt, Fe, Co, Pd, Ag, Al, Tl, Sn, P, Hg) from the ultra-trace range to main components

- Semi-quantitative overview analysis
- Various sample pretreatment and digestion techniques
- Sample matrices
  - Water (drinking water, groundwater, cooling water, deionized water, permeate,
  - feed water, ultrapure water, steam condensates, etc.)
  - Waste water
  - Products (e.g. acids, salts, hydrogen peroxide, methanol, gypsum, lime,
  - polymers)
  - deposits
  - sludges
  - Fuels, oil and refinery produc

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# Water and wastewater analysis parameters

pH value	Ammonium
Electrical conductivity	Chloride
Temperature	Nitrate
Redox potential	Sulphate
Oxygen	Nitrite
Coloring	Bromate
Turbidity	Sulphide
Hardness (total, carbonate hardness)	Sulphite
Acid and base capacity	Fluoride
Permanganate index	anionic surfactants (MBAS)
Particle size distribution	Cyanide
Phenol index	Silicic acid
Carbon compounds (TOC, DOC, TIC)	Iron (total, dissolved, Fe II)
Calcite saturation, carbonic acid species	Hydrazine
AOX (adsorbable organic halogen compounds)	Total phosphorus
Nitrogen compounds (TNb) Biochemical oxygen demand (5 days)	ortho-phosphate free chlorine
Chemical oxygen demand (COD)	lipophilic substances
Nitrification inhibition test	filterable solids
Degradation test	filtrate dry residue
Biodegradability (Zahn-Wellens test)	settleable substances
Luminescent bacteria test (L 52)	Suspended solids

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## Organic parameters

- BTEXC (benzene, toluene, ethylbenzene, xylene, cumen)
- LHKW (volatile halogenated hydrocarbons)
- MTBE
- methanol
- Carboxylic acids (C1 C6)
- Ethylene glycol
- PAHs (polycyclic aromatic hydrocarbons)
- GC-MS overview analysis (qualitative screening)
- Hydrocarbon index
- IR spectral images
- HPLC analyses on request

### Microbiological tests

- Line releases
- Monitoring of cooling circuits
- Colony count
- Escherichia coli, coliform germs
- Enterococci
- Pseudomonas aeruginosa
- Legionella
- Yeasts, fungi
- Clostridium perfringens
- Bacteria and fungi in selected petroleum products

### Further analysis parameters

- Dry residue
- Loss on ignition, residue on ignition
- sludge volume index
- Water soluble content
- Determination from the eluate (DIN 38414 S4)
- Determination from the aqua regia extract (DIN 38414 S7)
- Microscopic examination of activated sludge

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