

Sampling protocol and order for the monitoring according to the Drinking water ordinance 2001 (rev. 11.2011)

Test certificate and invoice to:

Customer number:
 Name:
 Street:
 Post code / Town
 Telephone:
 Fax / E-mail:

Copy to:

Name:
 Street:
 Post code / Town

Sampler
 Sampling date:
 Signature customer:
 Signature sampler:

NIWADAB entry? Yes: No:
 Responsible health authority:
 Brief designation:
 Facility type:
 Sampling site:
 Sampling site:

Type of sampling: Sample taken immediately or after approx. _____ litres running or after approx. _____ minutes
 run until temperature / conductivity was constant

Single sample: Stagnation sample: S0 S1 S2 Composite sample: from ___ single samples (with a volume of: ___l)

Temperature: _____ °C	vis. colouring: none <input type="checkbox"/> yes: weak <input type="checkbox"/> strong <input type="checkbox"/> which: _____	Impression: _____
On site Parameters:	vis. turbidity: none <input type="checkbox"/> yes <input type="checkbox"/>	Taste: Intensity: _____ Impression: _____
pH-value: _____	Sediment: _____	Odour: Intensity: _____ Impression: _____
Conductivity: _____	µS (25°C)	Retained sample at the customer: yes <input type="checkbox"/> no <input type="checkbox"/>

Please tick **Analysis packet**

- | | | |
|----|---|--|
| 1 | Escherichia coli (E. coli), enterococci | } Parameter for Routine analysis (yearly repeated) |
| 2 | Aluminium, ammonium, iron, conductivity, colouration, odour, taste, turbidity, pH | |
| 3 | Coliform bacteria, colony count at 22°C and 36°C | |
| 4 | Legionella spec. | } Further parameters for comprehensive analysis |
| 5 | Antimony, arsenic, lead, cadmium, chromium, copper, nickel, mercury, selenium, uranium | |
| 6 | Boron, manganese, sodium, calcium, potassium, magnesium | |
| 7 | Nitrate, nitrite, chloride, sulphate | |
| 8 | Bromate, cyanide, fluoride | |
| 9 | Oxydability, turbidity | |
| 10 | Benzol, 1,2 dichloroethane, tetrachloroethane, trichloroethane, trihalomethanes, PAH, Benzopyrene, plant treatment and pesticides | |
| 11 | Capacity to dissolve calcite (calculated from the m-value (carbonate hardness) and the parameters from packets 6 and 7) | |
| 12 | Clostridium perfringens (only on suspicion of influence from surface waters) | |
| 13 | Pseudomonas aeruginosa (only for supply in closed vessels) | |
| 14 | Acrylamide, vinyl chloride, epichlorohydrin (possible when using plastic piping) | |

Please tick **Scope of testing according to Drinking water ordinance.**

- | | | |
|--------------------------|---|--|
| <input type="checkbox"/> | Routine analysis <u>to be repeated yearly (packet 1 to 3)</u> | Price information can be received on:
+49 (0)211 9871-68 Admin.
-33 Laboratory |
| <input type="checkbox"/> | Comprehensive examination (packets 1 to 11, if necessary supplemented by packets 12 to 14) | |
| <input type="checkbox"/> | Analyses for small installations <u>without</u> supply of drinking water to third parties containing of packets 1 to 3 and packets 6,7,9 and 11 must be <u>repeated every 3 years.</u> | |
| <input type="checkbox"/> | Additionally for small installations <u>with</u> supply of drinking water to third parties position 13 of the above mentioned packets (if necessary position 12 of the above mentioned packets) | |
| <input type="checkbox"/> | Official sampling (according to § 19 Abs. 2 TVO) by staff of LUFA Nord-West
When sampling waste water concurrently, only one set of travel costs will be charged! | |

Further information from the contracting party:

Professional sampling is essential! If there are any questions, please see notes or call!

Institute for Soil and Environment

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Note: For transfer of the results into the NIWADAB databank, official sampling is necessary carried out by an LUFA Nord-West employee.

Please tick	Individual parameters of the Drinking water ordinance	Threshold values	Note
Microbiological parameters			
<input type="checkbox"/>	<i>Escherichia coli</i> (<i>E. coli</i>)	0/100 ml	Indicator parameters pointing towards faecal contamination. As enterococci are resilient, possibly a sign of older contamination. Colony count is an unspecific indicator for nearly all bacteria.
<input type="checkbox"/>	Enterococci	0/100 ml	
<input type="checkbox"/>	Coliform bacteria	0/100 ml	
<input type="checkbox"/>	Colony count at 22°C	100/ml; 20/ml; 1000/ml	
<input type="checkbox"/>	Colony count at 36°C	100/ml; 20/ml	
<input type="checkbox"/>	<i>Legionella spec.</i>	100/100 ml techn. measure value	Bacteria in warm water, dangerous on inhalation
<input type="checkbox"/>	<i>Clostridium perfringens</i> inc. spores	0/100 ml	Of faecal origin from soils
<input type="checkbox"/>	<i>Pseudomonas aeruginosa</i>	0/250 ml	Pus-forming bacterium
Physical parameters			
<input type="checkbox"/>	Colouring	0.5 m ⁻¹	Yellowish colouration, humins, Fe, Mn
<input type="checkbox"/>	Taste, odour	without abnormal findings	
<input type="checkbox"/>	Conductivity at 25°C	2790 µS/cm	Sign of overly salty water
<input type="checkbox"/>	pH	6.5 - 9.5	Water should not be corrosive
<input type="checkbox"/>	Turbidity	1 NTU	Sign of undissolved matter_____
Metals			
<input type="checkbox"/>	Aluminium	0.200 mg/l	Materials for water treatment
<input type="checkbox"/>	Antimony	0.0050 mg/l	Toxic heavy metal
<input type="checkbox"/>	Arsenic	0.010 mg/l	Carcinogenic
<input type="checkbox"/>	Lead	0.010 mg/l	Toxic heavy metal
<input type="checkbox"/>	Boron	1.0 mg/l	
<input type="checkbox"/>	Cadmium	0.0030 mg/l	Toxic heavy metal
<input type="checkbox"/>	Chromium	0.050 mg/l	Toxic heavy metal
<input type="checkbox"/>	Iron	0.200 mg/l	Taste, influences colour
<input type="checkbox"/>	Copper	2.0 mg/l	
<input type="checkbox"/>	Manganese	0.050 mg/l	Taste, influences colour
<input type="checkbox"/>	Sodium	200 mg/l	
<input type="checkbox"/>	Nickel	0.020 mg/l	Toxic heavy metal
<input type="checkbox"/>	Mercury	0.0010 mg/l	Toxic heavy metal
<input type="checkbox"/>	Selenium	0.010 mg/l	Toxic
<input type="checkbox"/>	Uranium	0.010 mg/l	Toxic heavy metal
Anions and cations			
<input type="checkbox"/>	Ammonium	0.50 mg/l	Sign for acute organic load, toxic
<input type="checkbox"/>	Bromate	0.010 mg/l	Carcinogenic
<input type="checkbox"/>	Chloride	250 mg/l	Influences colour
<input type="checkbox"/>	Cyanide	0.050 mg/l	Toxic
<input type="checkbox"/>	Fluoride	1.5 mg/l	Toxic
<input type="checkbox"/>	Sulphate	250 mg/l	Detrimental for concrete, laxative
<input type="checkbox"/>	Nitrate	50 mg/l	Sign for acute organic load
<input type="checkbox"/>	Nitrite	0.50 mg/l	Sign for acute organic load, toxic
Other parameters			
<input type="checkbox"/>	Capacity to dissolve calcite	5 mg/l; 10 mg/l	Dissolves or deposits lime
<input type="checkbox"/>	Oxydability	5.0 mg/l	Sign for acute organic load
<input type="checkbox"/>	Organically bound carbon (TOC)	without abnormal changes	
<input type="checkbox"/>	PAK	0.00010 mg/l	Carcinogenic, but very rarely found in drinking water as insoluble, particle bound
<input type="checkbox"/>	Benzopyrene	0.000010 mg/l	
<input type="checkbox"/>	Benzol	0.0010 mg/l	
<input type="checkbox"/>	Plant protective chemicals and biocides	0.00010 mg/l individual 0.00050 mg/l cumulative	Toxicological preventative value
<input type="checkbox"/>	1,2-Dichloroethane	0.0030 mg/l	Not acutely highly toxic but long term carcinogenic
<input type="checkbox"/>	Tetrachloroethene, trichloroethene	0.010 mg/l	
<input type="checkbox"/>	Trihalomethanes	0.050 mg/l	
<input type="checkbox"/>	Acrylamide	0.00010 mg/l	Residual monomers of the production of plastic pipes, carcinogenic
<input type="checkbox"/>	Epichlorohydrin	0.00010 mg/l	
<input type="checkbox"/>	Vinylchloride	0.00050 mg/l	