



FW-4 General parameters in freshwater (algemene parameters in oppervlaktewater)

Year: 2024	Participants: 20 laboratories expected
Number of rounds: 1 per year	Period exercise: 24 April – 22 May
Number of materials: 3 per round	Sample size: 500-1150 ml



This study covers the determination of general parameters in freshwater test materials. Participation of acidified samples is open for world-wide laboratories. Participation of determinands where conservation is 'completely filled' is only applicable for local laboratories as analysis needs to be performed on fresh samples.

Test Materials

The test materials are prepared in bulk from filtered (1 mm) freshwater. Homogeneity of the test materials is assumed, as they were prepared in bulk and thoroughly mixed, before being dispensed into glass or plastic bottles for distribution.

Acidified samples with conservation 'HCl pH<2' or 'H₂SO₄ pH<2' are stable for the purpose of the exercise and can be send worldwide. Samples with conservation 'completely filled' are freshly prepared a day in advance to the pre-determined date and sent cooled by courier with same-day delivery. Samples need to be kept cooled until analysis. **The pre-determined date of analysis of the 'completely filled' samples is 26th of April 2024**. Therefore, these samples cannot be distributed worldwide.

Determinands and Concentration Ranges

Determinand*	Unit	Concentration Range	Conservation	Sample	Error	
				SIZE	Const	Prop
Mineral oil (minerale olie)	mg/l	1-5	HCI pH<2	800 ml		
BOD-5 (BZV-5)	mg/l	5-50	Completely filled	~1150 ml		
ТОС	mg/l	1-20				
DOC	mg/l	1-20				
Cl - Chloride	mg/l	100-300	Completely filled	Completely filled ~1150 ml		
EC (EGV) (25°C)	mS/m	-				
NO2 (nitrite)	mg/l	0.1-1				
NO3 (nitrate)	mg/l	1-5				
PO4 (phosphate)	mg/l	0.1-1				
SiO2 (silicon oxide)	mg/l	5-20				
SO4 (sulfate)	mg/l	100-300				
pН	-	-				
F (fluoride)	mg/l	1-50				
Br (bromide)	mg/l	1-50				
KjN (kjeldahl nitrogen)	mg/l	1-5	H₂SO₄ pH<2	500 ml		
NH4 (ammonium)	mg/l	1-5				





Determinand*	Unit	Concentration Range	Conservation	Sample	Error	
				0120	Const	Prop
tN (total nitrogen)	mg/l	1-5				
tP (total phosphorus)	mg/l	0.1-2				
COD (CZV)	mg/l	3-30				

* This exercise is not in the scope of accreditation.