

Chloride L (B)

91

5.00 - 60 mg/l Cl⁻

Iron(III)-thiocyanate

Instrument specific information

The test can be performed on the following devices. In addition, the required cuvette and the absorption range of the photometer are indicated.

Instrument Type	Cuvette	λ	Measuring Range
SpectroDirect, XD 7000, XD 7500	ø 24 mm	455 nm	5.00 - 60 mg/l Cl ⁻

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
Chloride Reagent Test	1 Set	2419031

Application List

- Waste Water Treatment
- Cooling Water
- Drinking Water Treatment
- Raw Water Treatment
- Galvanization

Preperation

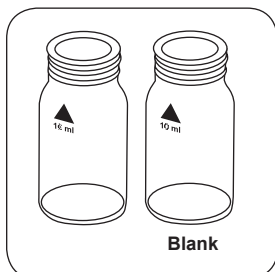
1. The test sample and the reagents should be at room temperature when undertaking the test.
2. The pH value of the sample must be between 3 and 9.

Notes

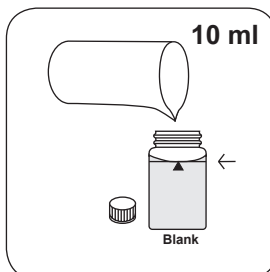
1. The reagents are to be stored in closed containers (in a fridge) at +4°C – +8 °C.

Implementation of the provision Chloride Reagent test

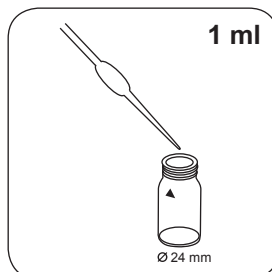
Select the method on the device



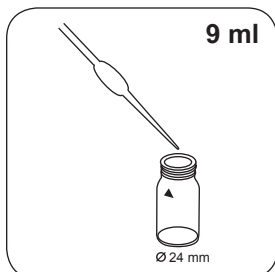
Prepare two clean 24 mm vials. Mark one as a blank.



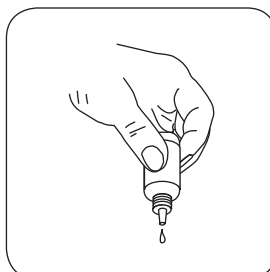
Put **10 ml deionised water** in the blank.



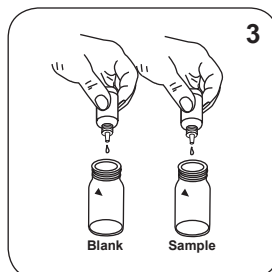
Put **1 ml sample** in the vial.



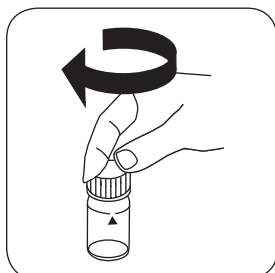
Fill 24 mm vial with **9 ml deionised water**.



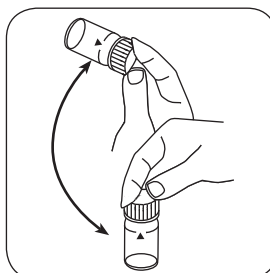
Hold cuvettes vertically and add equal drops by pressing slowly.



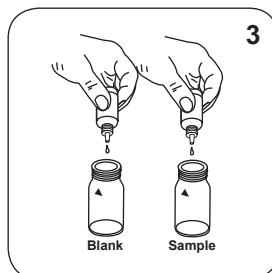
Add **3 drops Chloride-51 solution** to each vial.



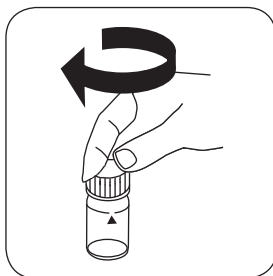
Close vial(s).



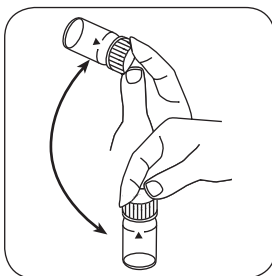
Invert several times to mix the contents.



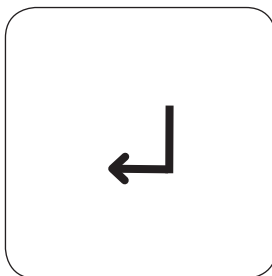
Add **3 drops Chloride-52 solution** to each vial.



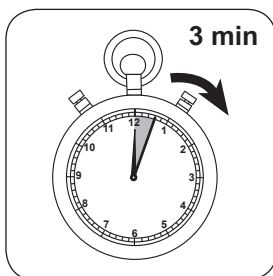
Close vial(s).



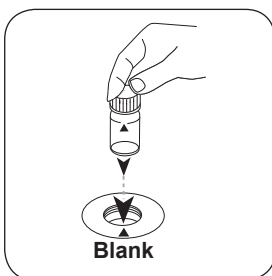
Invert several times to mix the contents.



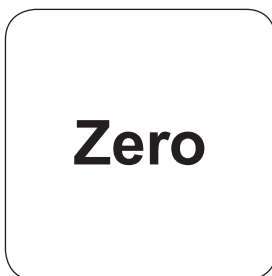
Press the **ENTER** button.



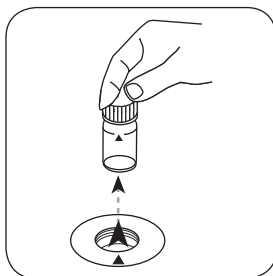
Wait for **3 minute(s) reaction time**.



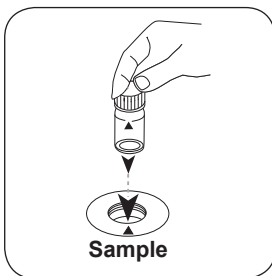
Place **blank** in the sample chamber. • Pay attention to the positioning.



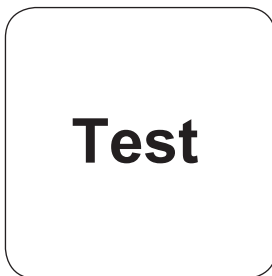
Press the **ZERO** button.



Remove the vial from the sample chamber.



Place **sample vial** in the sample chamber. • Pay attention to the positioning.



Press the **TEST (XD: START)** button.

The result in mg/l Chloride appears on the display.

Analyses

The following table identifies the output values can be converted into other citation forms.

Unit	Cite form	Scale Factor
mg/l	Cl-	1
mg/l	NaCl	1.65

Chemical Method

Iron(III)-thiocyanate

Appendix

Interferences

Persistent Interferences

- 1. Thiocyanate, sulphide, thiosulphate, bromide, and iodide interfere with the determination, because they act in the same way as chlorine.

Derived from

APHA Method 4500 Cl-E

^{a)} determination of free, combined and total | ^{b)} Reactor is necessary for COD (150 °C), TOC (120 °C) and total -chromium, - phosphate, -nitrogen, (100 °C) | ^{c)} MultiDirect: Adapter is necessary for Vacu-vials® (Order code 19 20 75) | ^{d)} Spectroquant® is a Merck KGaA Trademark | ^{e)} alternative reagent, used instead of DPD No.1/No.3 in case of turbidity in the water sample caused by high concentration of calcium and/or high conductivity | ^{f)} additionally required for determination of bromine, chlorine dioxide and ozone in the presence of chlorine | ^{g)} Reagent recovers most insoluble iron oxides without digestion | ^{h)} additionally required for samples with hardness values above 300 mg/l CaCO₃ | ⁱ⁾ high range by dilution | ^{j)} including stirring rod, 10 cm