



Chloride L (A)

92

0.5 - 20 mg/l Cl<sup>-</sup>

CL-

Mercury Thiocyanate / Iron Nitrate

### 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	$\lambda$	Measuring Range
MD 100, MD 110, MD 600, MD 610, MD 640, XD 7000, XD 7500	ø 24 mm	430 nm	0.5 - 20 mg/l Cl <sup>-</sup>

### Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
Chlorid Reagent Set	1 pc.	56R018490

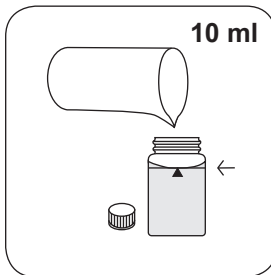
### Application List

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

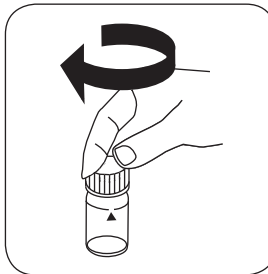
## Implementation of the provision Chloride with liquid reagent

Select the method on the device

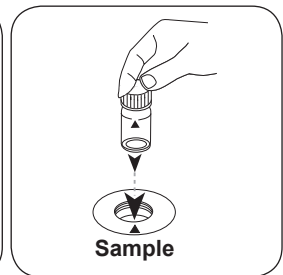
For this method, no ZERO measurements are to be carried out with the following devices: XD 7000, XD 7500



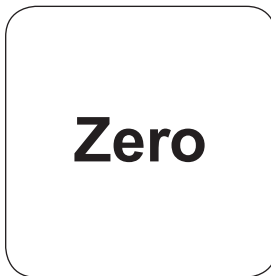
Fill 24 mm vial with **10 ml sample**.



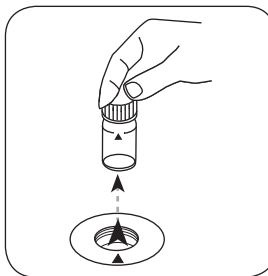
Close vial(s).



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

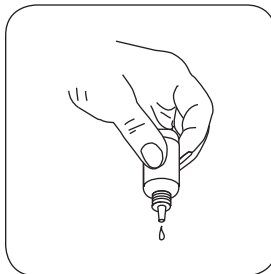


Press the **ZERO** button.

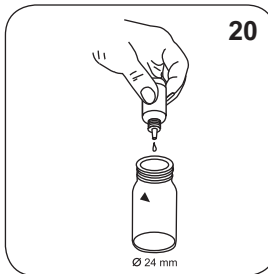


Remove the vial from the sample chamber.

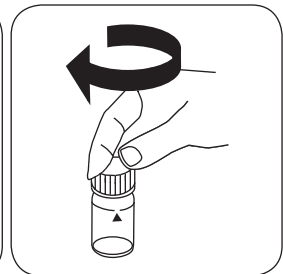
For devices that require **no ZERO measurement**, start here.



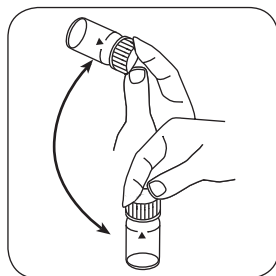
Hold cuvettes vertically and add equal drops by pressing slowly.



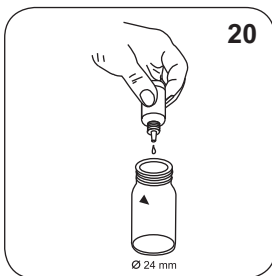
Add **20 drops KS251 (Chloride Reagent A)**.



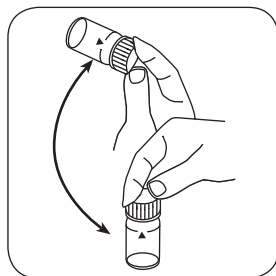
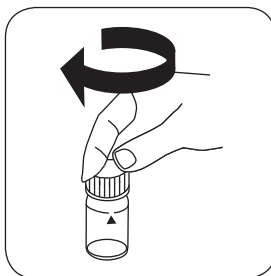
Close vial(s).



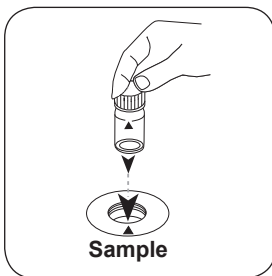
Invert several times to mix the contents.



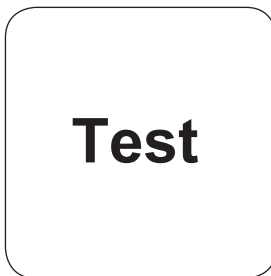
Add **20 drops KS253 (Chloride Reagent B)**. Close vial(s).



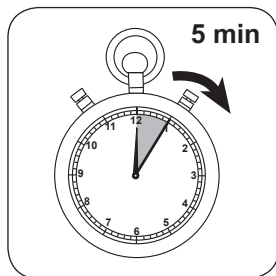
Invert several times to mix the contents.



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



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



Wait for **5 minute(s) reaction time**.

Once the reaction period is finished, the measurement takes place automatically.

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 <sup>-</sup>	1
mg/l	NaCl	1.65

## Chemical Method

Mercury Thiocyanate / Iron Nitrate

## Appendix

### Interferences

#### Persistent Interferences

1. Reducing substances such as sulfite and thiosulfate, that can reduce iron (III) to iron (II) or mercury (II) to mercury (I) may interfere. Cyanide, Iodine and Bromide give a positive interference.

#### Derived from

APHA Method 4500 Cl<sup>-</sup> 3

<sup>a)</sup> determination of free, combined and total | <sup>b)</sup> Reactor is necessary for COD (150 °C), TOC (120 °C) and total -chromium, - phosphate, -nitrogen, (100 °C) | <sup>c)</sup> MultiDirect: Adapter is necessary for Vacu-vials® (Order code 19 20 75) | <sup>d)</sup> Spectroquant® is a Merck KGaA Trademark | <sup>e)</sup> 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 | <sup>f)</sup> additionally required for determination of bromine, chlorine dioxide and ozone in the presence of chlorine | <sup>g)</sup> Reagent recovers most insoluble iron oxides without digestion | <sup>h)</sup> additionally required for samples with hardness values above 300 mg/l CaCO<sub>3</sub> | <sup>i)</sup> high range by dilution | <sup>\*)</sup> including stirring rod, 10 cm