

Chloride

Test kit for performing colorimetric tests on chloride ions in surface water and sewage

Method:

Chloride ions react with mercuric thiocyanate to produce undissociated mercuric chloride and to liberate thiocyanate ions. In the presence of ferric salts these thiocyanate ions produce a characteristic orange color.

Measurement range:

1–60 mg/L Cl⁻

Contents of test kit (*refill pack):

sufficient for 90 tests

2 x 20 mL Cl-1*

24 mL Cl-2*

2 screw-plug measuring glasses

1 slide comparator

1 color chart

1 plastic syringe 5 mL

1 instructions for use*

Hazard warning:

Information regarding safety can be found on the box' label and in the safety data sheet. You can download the SDS from www.mn-net.com/SDS.

Procedure:**a) colorimetric determination with color chart**

also refer to the pictogram on the back of the color chart

1. Pour a **5 mL water sample** into each of the measuring glasses using the plastic syringe.

Place one measuring glass on position A in the comparator.

Only add the reagents to measuring glass B.

2. Add **10 drops of Cl-1**. Seal the glass and mix.

3. Add **10 drops of Cl-2**. Seal the glass and mix.

4. Open the glass after **1 min** and place it on position B in the comparator.

5. Slide the comparator until the colors match in the inspection hole on top. Check the measurement reading in the recess on the comparator reed. Mid-values can be estimated.

6. After use, rinse out both measuring glasses thoroughly (see „Disposal“) and seal them.

b) photometric determination

The reagents are also suitable for **photometric evaluation**. Please refer to the separate instructions for photometric performance.

The method can not be applied for the analysis of sea water.

Measurement up to 300 mg/L chloride:

1. Pour a **1 mL water sample** and **4 mL of distilled water** into each of the measuring glasses.

2. Same procedure as described above. Multiply the read-off value by **5** (see „Conversion table“).

Conversion table for measurements up to 300 mg/L chloride:

Read-off value in mg/L Cl ⁻	Chloride concentration in mg/L Cl ⁻ (read-off value x 5)
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1	5
2	10
4	20
7	35
12	60
20	100
40	200
60	300

Disposal:

Information regarding disposal can be found in the safety data sheet. You can download the SDS from www.mn-net.com/SDS.

Interferences:

Bromide, cyanide, iodide, sulfide, thiocyanate and thiosulfate all interfere since they react in the same way as chloride.

The following ions will not interfere: ≤ 2000 mg/L NO₂⁻; ≤ 20 mg/L F⁻.

Note:

For the determination of chloride in concrete, please contact MACHEREY-NAGEL for special working instructions.

Storage:

Store the test kit in a cool (< 25 °C) and dry place.