

# visicolor® ECO

## 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<sup>-</sup>

### 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:

Cl-1 contains nitric acid 5–20%, Cl-2 contains mercury(II) thiocyanate 0.32–0.64% in methanol 50–100%.

H301, H311, H314, H331, H370 Toxic if swallowed. Toxic in contact with skin. Causes severe skin burns and eye damage. Toxic if inhaled. Causes damage to organs.

P260, P264, P270, P280, P301+310, P301+330+331, P302+352, P303+361+353, P304+340, P305+351+338, P308+311, P361+P364, P405, P501 Do not breathe vapors. Wash with water thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/eye protection. IF SWALLOWED: Immediately call a POISON CENTER/doctor/... IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of water/... IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Call a POISON CENTER/doctor/... Take off immediately all contaminated clothing and wash it before reuse. Store locked up. Dispose of contents/container to regulated waste treatment. For further information ask for a safety data sheet.

### Instructions for use:

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.

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 <sup>-</sup>	Chloride concentration in mg/L Cl <sup>-</sup> (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

The reagents can be used for the **photometric evaluation** with photometer PF-12.

### Disposal:

We recommend to collect the contents of the measuring glass and the water used for rinsing as mercury containing waste disposal. Please observe local regulations concerning waste.

### 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 NO<sub>2</sub><sup>-</sup>; ≤ 20 mg/L F<sup>-</sup>.

### 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.

### Product data and ordering information

REF	931 018 (931 218)
Type	colorimetric test kit (refill pack)
Range	1 · 2 · 4 · 7 · 12 · 20 · 40 · 60 mg/l (ppm) Cl <sup>-</sup>
Sufficient for	90 determinations
Shelf life	at least 1 years
Sea water suitability	no
Detectable with PF-12	yes