

1.10079.0001

MQuant™ Chloride Test

Cl⁻

1. Method

Chloride ions react with silver ions, decolorizing red-brown silver chromate. The chloride concentration is measured **semiquantitatively** by visual comparison of the reaction zones of the test strip with the color rows of a color scale.

2. Measuring range and number of determinations

Measuring range / color-scale graduation	Number of determinations
500 - 1000 - 1500 - 2000 - ≥3000 mg/l Cl ⁻	100

3. Applications

This test is particularly recommended for the determination of the chloride content in conjunction with the COD determination.

The determination can be performed not only in liquid samples, but also on moistened surfaces of e. g. meats and sausages (see section 7).

Sample material:

Groundwater and surface water
Wastewater
Food

4. Influence of foreign substances

The determination is not yet interfered with up to the concentrations of foreign substances given in the table.

Concentrations of foreign substances in mg/l					
Acetate	1000	Mg ²⁺	1000	EDTA	1000
Ag ⁺	75	Mn ²⁺	1000		
Al ³⁺	1000	Na ⁺	1000		
Ascorbate	10	NH ₄ ⁺	1000		
BO ₃ ³⁻	1000	Ni ²⁺	1000		
Br ⁻	75	NO ₂ ⁻	1000		
Ca ²⁺	1000	NO ₃ ⁻	1000		
Cd ²⁺	1000	OCN ⁻	1000		
Ce ³⁺	1000	Oxalate	1000		
Citrate	1000	Pb ²⁺	1000		
CN ⁻	1000	PO ₄ ³⁻	1000		
CO ₃ ²⁻	1000	S ²⁻	20		
Cr ³⁺	1000	SCN ⁻	100		
CrO ₄ ²⁻	1000	Sn ²⁺	1000		
Cu ²⁺	1000	SO ₃ ²⁻	1000		
Fe ²⁺	1000	SO ₄ ²⁻	1000		
Fe ³⁺	1000	S ₂ O ₃ ²⁻	75		
Hg ²⁺	75	Tartrate	1000		
I ⁻	100	Zn ²⁺	1000		
K ⁺	1000				

5. Reagents and auxiliaries

The test strips are stable up to the date stated on the pack when stored closed at +2 to +8 °C.

Package contents:

Tube containing 100 test strips

Other reagents:

MColorpHast™ Universal indicator strips pH 0 - 14, Cat. No. 109535

Sodium hydroxide solution 1 mol/l TitriPUR®, Cat. No. 109137

Nitric acid Titrisol® for 1 mol/l, Cat. No. 109966)

Chloride standard solution CertiPUR®, 1000 mg/l Cl⁻, Cat. No. 119897

6. Preparation

- Samples containing more than 3000 mg/l Cl⁻ must be diluted with distilled water.
- The pH must be within the range 5 - 8. Adjust, if necessary, with sodium hydroxide solution or nitric acid.
- Moisten solid samples with distilled water.

7. Procedure

Immerse **all reaction zones** of the test strip in the pre-treated sample (15 - 25 °C) for 1 sec or, respectively, bring into contact with the moistened solid sample.

Shake off excess liquid from the strip and **after 1 min** determine with which color row on the label the colors of the reaction zones coincide most exactly.

Read off the corresponding result in mg/l Cl⁻.

Notes on the measurement:

- The color of the reaction zones may continue to change after the specified reaction time has elapsed. This must not be considered in the measurement.
- If the appearance of the reaction zones corresponds to that of the color row for ≥3000 mg/l Cl⁻, the chloride concentration may actually be considerably higher. In this case, the measurement should therefore be repeated using **fresh**, diluted samples until a value of less than 3000 mg/l Cl⁻ is obtained.
Concerning the result of the analysis, the dilution (see also section 6) must be taken into account:

Result of analysis = measurement value x dilution factor

- The measurement results obtained on moistened surfaces are only guideline values.

8. Method control

To check test strips and handling:

Analyze the chloride standard solution as described in section 7.

Additional notes see under www.qa-test-kits.com.

9. Note

Reclose the tube containing the test strips immediately after use.

