REF 985 019

en

Test 0-19 12.14
NANOCOLOR® Chloride 200

Method:
Photometric determination with mercury(II) thiocyanate and iron(III) nitrate

Range:	**5–200 mg/L Cl^-**
Factor:	**not linear**
Wavelength (HW = 5–12 nm):	**470 nm**
Reaction time:	**3 min (180 s)**
Reaction temperature:	**20–25 °C**

Contents of reagent set:
20 test tubes Chloride 200
2 test tubes with 11 mL Chloride 200 R2
1 test tube with blank value "NULL"

Hazard warning:
Test tubes contain nitric acid 5–20 %, reagent R2 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+364, 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.

Preliminary tests:
If the order of magnitude of the concentration in a sample is not known, a preliminary test with QUANTOFIX® Chloride (500–3000 mg/L Cl^-, REF 913 21) or with *VISOCOLOR*® *HE* Chloride CL 500 (REF 915 004) rapidly gives this information. From the order of magnitude the required dilution can be calculated and prepared directly.

Interferences:
Thiocyanate, sulfide, thiosulfate, bromide and iodide all interfere, since they react in the same way as chloride. A fluoride concentration in excess of 20 mg/L interferes with the chloride determination, and the concentrations read off are lower than those actually present in the test sample.

The method can also be applied for the analysis of sea water after dilution (1:200).

Note:
For the determination of chloride up to 1.00 g/L Cl^- please contact MACHEREY-NAGEL for special working instructions.

Procedure:
Requisite accessories: piston pipette with tips

Open test tube, add
1.0 mL sample solution *(the pH value of the sample must be between pH 1 and 13)* and
1.0 mL R2, close and mix.
Clean outside of test tube and measure after 3 min.

Measurement:
For *NANOCOLOR*® photometers and PF-12 see manual, test 0-19.

Measurement when samples are colored or turbid:
For *NANOCOLOR*® photometers see manual, use key for correction value.

Photometers of other manufacturers:
For other photometers check whether measurement of round glass tubes is possible. Verify calibration curve for each type of instrument by measuring standard solutions.

Analytical quality control:
NANOCONTROL Multistandard Metals 1 (REF 925 015)

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