

REF 985 054

en

Test 0-54

06.14

**NANOCOLOR® Copper 7**

**Method:**

Photometric determination with cuprizone [oxalic acid bis (cyclohexylidene hydrazide)]

Range:	0.10–7.00 mg/L Cu <sup>2+</sup>
Factor:	03.28
Wavelength (HW = 5–12 nm):	585 nm
Reaction time:	10 min (600 s)
Reaction temperature:	20–25 °C

**Contents of reagent set:**

20 test tubes Copper 7

1 test tube with 6 mL Copper 7 R2

**Hazard warning:**

This test does not contain any harmful substances which must be specially labelled as hazardous.

**Preliminary tests:**

If the order of magnitude of the concentration in a sample is not known, a preliminary test with QUANTOFIX® Copper (10–300 mg/L Cu<sup>2+</sup>, REF 913 04) rapidly gives this information. From the order of magnitude the required dilution can be calculated and prepared directly.

For test of the absence of interfering complexing agents we recommend a preliminary test with NANOCOLOR® org. Complexing Agents 10 (REF 985 052).

**Interferences:**

The following quantities of ions will not interfere:

≤ 10 mg/L Co, Cr, Fe, Mn, Ni, Zn; ≤ 50 mg/L CO<sub>3</sub><sup>2-</sup>.

Only Cu(II) ions are determined. The total copper can be determined with NANOCOLOR® NanOx Metal (REF 918 978) or with cracking set (REF 918 08).

The method can be applied also for the analysis of sea water.

**Procedure:**

Requisite accessories: piston pipette with tips

Open test tube, add

4.0 mL test sample (*the pH value of the sample must be between pH 1 and 13*) and

200 µL (= 0.2 mL) R2, close and mix.

*The pH value has to be between 8.5 and 9.5, otherwise add more R2.*

Clean outside of test tube and measure after 10 min.

**Measurement:**

For NANOCOLOR® photometers and PF-12 see manual, test 0-54.

**Measurement when samples are colored or turbid:**

For all 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 factor for each type of instrument by measuring standard solutions.

**Analytical quality control:**

NANOCONTROL Multistandard Metals 2 (REF 925 016)