

REF 91851

Test 1-51 **04.23**
NANOCOLOR® Cobalt

Method:

Photometric determination with 4-[5-Chloro-2-pyridylazo]-1,3-phenylenediamine

Cuvette:	50 mm	10 mm
Range (mg/L Co ²⁺):	0.002 – 0.300	0.02 – 0.70
Wavelength (HW = 5 – 12 nm):	540 / 565 nm	
Reaction time:	5 min (300 s)	
Reaction temperature:	20 – 25 °C	

Contents of reagent set:

100 mL Cobalt R1
100 mL Cobalt R2
100 mL Cobalt R3

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.

Interferences:

The total cobalt can be determined with NANOCOLOR® NanOx Metal (REF 918978) or Crack Set (REF 91808).

The following ions will not interfere: ≤ 1 mg/L Cu, Cr(III); ≤ 5 mg/L Al, Cr(VI), Zn; ≤ 25 mg/L Fe, Mn, Ni.

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

Procedure:

Requisite accessories: volumetric flasks 25 mL (REF 91661), piston pipette 100–1000 µL (REF 91677) with tips (REF 91676)

Pour into two separate volumetric flasks:

Test sample	Blank value
20 mL test sample (the pH value of the sample must be between pH 4 and 10)	20 mL distilled water
1 mL R1, mix	1 mL R1, mix
1 mL R2, mix	1 mL R2, mix
1 mL R3, mix	1 mL R3, mix

Fill up sample and blank value to 25 mL mark with distilled water and mix again. After 5 min pour into cuvettes and measure.

Measurement:

For MACHEREY-NAGEL photometers see manual, test 1-51.

Measurement when samples are colored or turbid:

For all MACHEREY-NAGEL photometers see manual, use key for correction value.

Photometers of other manufacturers:

Verify factors for each type of instrument by measuring standard solutions.

Decreasing volume of analytical preparation:

In order to increase the number of determinations, you can work with volumetric flasks of 10 mL: 8 mL test sample + 0.4 mL R1 + 0.4 mL R2 + 0.4 mL R3, semi-micro cuvette (REF 91950).

Disposal:

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

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