

REF 985 069

en

# Test 0-69 02.17

## NANOCOLOR® Nitrite 4

**Method:**

Photometric determination with sulfanilamide and *N*-(1-naphthyl)ethylenediamine

Range:	0.1–4.0 mg/L NO <sub>2</sub> -N	0.3–13.0 mg/L NO <sub>2</sub> <sup>-</sup>
Wavelength (HW = 5–12 nm):	540 nm	
Reaction time:	15 min (900 s)	
Reaction temperature:	20–25 °C	

**Contents of reagent set:**

20 test tubes Nitrite 4  
1 tube NANOFIX Nitrite 4 R2

**Hazard warning:**

This tube 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® Nitrite (1–80 mg/L NO<sub>2</sub><sup>-</sup>, REF 913 11) rapidly gives this information. From the order of magnitude the required dilution can be calculated and prepared directly.

**Interferences:**

Free chlorine, organic colloids and humic acids can cause interferences.

The following ions will not interfere:

< 1000 mg/L Ca<sup>2+</sup>, Cr(III), Cu<sup>2+</sup>, Fe<sup>3+</sup>, Mg<sup>2+</sup>, Mn<sup>2+</sup>, Ni<sup>2+</sup>, Zn<sup>2+</sup>, Cl<sup>-</sup>, NO<sub>3</sub><sup>-</sup>, PO<sub>4</sub><sup>3-</sup>, SO<sub>4</sub><sup>2-</sup>  
< 10 mg/L Cr(VI)

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

**Note:**  
For removal of emulsions, turbidities and color prior to the test, e.g. for nitrite in cooling lubricants, seepage water from waste deposits etc., use Reagents for sample preparation by clarification precipitation (REF 918 937).

**Procedure:**

Requisite accessories: piston pipette with tips

Open test tube, add  
200 µL (= 0.2 mL) test sample (*the pH value of the sample must be between pH 4 and 13*)  
and  
1 NANOFIX R2, close and mix.  
(Close NANOFIX tube immediately after use.)  
Clean outside of the test tube and measure after 15 min.

**Measurement:**

For NANOCOLOR® photometers see manual, test 0-69.

**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 Nitrite (REF 925 68)

Dilute 100+ addition solution with distilled water (1+1): 2.1 mg/L NO<sub>2</sub>-N

Confidence interval: 1.9–2.3 mg/L NO<sub>2</sub>-N

**Reference:**

German standard methods for the examination of water, waste water and sludge (DIN EN 26 777-D10)