

REF 985066

en

Test 0-66

10.18

NANOCOLOR® Nitrate 250**Method:**

Photometric determination with 2,6-dimethylphenol in sulfuric acid / phosphoric acid

Range:	4–60 mg/L NO ₃ -N	20–250 mg/L NO ₃ ⁻
Wavelength (HW = 5–17 nm):	350 / 365 nm	
Reaction time:	10 min (600 s)	
Reaction temperature:	20–25 °C	

Contents of reagent set:

20 test tubes Nitrate 250

1 test tube with 11 mL NO₃/N R2**Hazard warning:**

Test tubes contain sulfuric acid 51–65 % and o-phosphoric acid 25–40 %, reagent R2 contains 2-propanol 35–50 %.

H314 Causes severe skin burns and eye damage.

P260sh, P280sh, P303+361+353, P305+351+338, P310 Do not breathe dust/vapors. Wear protective gloves/eye protection. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. 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® Nitrate/Nitrite (10–500 mg/L NO₃⁻, REF 91313) rapidly gives this information. From the order of magnitude the required dilution can be calculated and prepared directly. In the same check it is possible to proof the interferences of nitrite.

Interferences:

Nitrite interferes > 3 mg/L (check with QUANTOFIX® Nitrite – REF 91311). This can be circumvented by addition of 1 spoon of amidosulfonic acid (REF 918973) to 10 mL test sample. Wait 10 min to determine nitrate.

The following ions will not interfere: < 2000 mg/L CSB (potassium hydrogen phthalate); < 2500 mg/L CO₃²⁻; < 1250 mg/L Cl⁻; < 1000 mg/L Ca²⁺; < 125 mg/L Cu²⁺; < 125 mg/L Fe³⁺; < 125 mg/L Ni²⁺; < 125 mg/L Zn²⁺; < 10 mg/L Cl₂.

The method can not be applied for the analysis of sea water.

Procedure:

Requisite accessories: piston pipette with tips

Open test tube, add

0.2 mL test sample (*the pH value of the sample must be between pH 1 and 13*) and **0.5 mL** R2, mix by **shaking gently** (*Test tube becomes warm!*).

Clean outside of test tube and measure after 10 min.

Measurement:

For MACHEREY-NAGEL photometers see manual, test 0-66.

Measurement when samples are colored or turbid:

For all MACHEREY-NAGEL 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 Sewage influx (REF 925012) or Multistandard Seepage water (REF 925013)