

REF 985 003

en

Test 0-03

07.14

NANOCOLOR® Ammonium 3**Method:**

Photometric determination as indophenol: At a pH value of about 12.6 ammonium reacts with hypochlorite and salicylate in the presence of sodium nitroprusside as catalyst to form a blue indophenol.

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|-------------------------------|-----------------------------------|--|
| Range: | 0.04–2.30 mg/L NH ₄ -N | 0.05–3.00 mg/L NH ₄ ⁺ /NH ₃ |
| Factor: | 01.30 | 01.67/01.58 |
| Wavelength (HW = 5–12 nm): | 690 nm | |
| Reaction time: | 15 min (900 s) | |
| Reaction temperature: | 20–25 °C | |

Contents of reagent set:

- 20 test tubes Ammonium 3
- 1 tube NANOFIX Ammonium 3 R2
- 1 test tube with blank value “NULL”

Hazard warning:

Reagent R2 contains sodium nitroprusside 5–33 %.
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® Ammonium (10–400 mg/L NH₄⁺, REF 913 15) or with VISOCOLOR® ECO Ammonium 15 (0,5–15 mg/L NH₄⁺, REF 931 010) rapidly gives this information. From the order of magnitude the required dilution can be calculated and prepared directly.

Interferences:

Good reproducibility is obtained in weakly polluted waters. High pollution causes errors and requires distillation prior to analysis. Strongly acidic or buffered solutions have to be adjusted to pH 9–10 with sodium hydroxide solution.

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

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 7 and 10*) and
1 NANOFIX R2, close, shake.

(Close NANOFIX tube immediately after use.)

Clean outside of test tube and measure after 15 min

Measurement:

For NANOCOLOR® photometers and PF-12 see manual, test 0-03.

Measurement when samples are coloured 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 sewage outflow 2 (REF 925 010)