

REF 985 003

en

Test 0-03

06.11

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 nitroprussiate as catalyst to form a blue indophenol.

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:

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® 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 for the test.

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 Ammonium 3 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-10 / PF-11 / PF-12 see manual, test 0-03.

Measurement when samples are coloured or turbid:

For all NANOCOLOR® photometers see manual, chapter 5.11., 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)