

REF 985 004

en

Test 0-04

08.11

NANOCOLOR® Ammonium 10**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:	0.2–8.0 mg/L NH ₄ -N	0.2–10.0 mg/L NH ₄ ⁺ /NH ₃
Factor:	005.7	007.3/006.9
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 10
 1 tube *NANOFIX* Ammonium 10 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.

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

Procedure:

Requisite accessories: piston pipette with tips

Open test tube, add
1.0 mL test sample (*the pH value of the sample must be between pH 1 and 13*) and
1 *NANOFIX* Ammonium 10 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 0-04.

For measurements up to 50 mg/L NH₄⁺ we recommend test 0-05 Ammonium 50. Alternatively, proceed as follows: Use **0.2 mL** instead of 1.0 mL test sample. For photometers *NANOCOLOR*® 200 D/250 D/300 D and PF-10/PF-11 call up method **044** (F = 0026. for NH₄-N) or **045** (F = 0033. for NH₄⁺).

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 1 (REF 925 011)