

REF 985004

en

Test 0-04

12.17

**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 nitroprusside as catalyst to form a blue indophenol.

Range:	0.2–8.0 mg/L NH <sub>4</sub> -N	0.2–10.0 mg/L NH <sub>4</sub> <sup>+</sup> / NH <sub>3</sub>
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:

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 NH<sub>4</sub><sup>+</sup>, REF 91315) or with VISOCOLOR® ECO Ammonium 15 (0.5–15 mg/L NH<sub>4</sub><sup>+</sup>, REF 931010) 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 R2, close, shake.  
(*Close NANOFIX tube immediately after use.*)
- Clean outside of test tube and measure after 15 min.

#### Measurement:

For MACHEREY-NAGEL photometers see manual, test 0-04.

#### 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 Multistandard Sewage outflow 1 (REF 925011)