visocolor® HE

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Ammonium

High sensitivity test kit for the determination in the range of 0.02–0.50 mg/L NH_4^+

Method:
Indophenol blue

Contents of test kit (*refill pack):
sufficient for 110 tests

2 x 30 mL NH_4-1*
16 g NH_4-2*
1 black measuring spoon 85 mm*
1 plastic beaker for sampling
2 round glass tubes with screw caps
1 comparator block
1 color comparison disc Ammonium

Hazard warning:
NH_4–1 contains sodium hydroxide solution 2–5 %.
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.

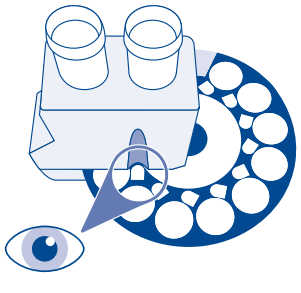
Procedure:
1. Insert color comparison disc (see illustration).
2. Open both round glass tubes, rinse several times with the water sample and fill up to the mark with the sample.
3. Add 10 drops NH_4-1 to the right glass tube, close and mix.
4. Add 1 level measuring spoon NH_4-2 to the right glass tube, close and mix. Wait 15 min.
5. Reading: Turn color disc until both colors match by transmitted light from above. Read test results from the mark on the front side of the comparator (see illustration). Intermediate values can be estimated.
6. After use clean both round glass tubes thoroughly and close.

mg/L NH_4^+	mg/L NH_4-N (ammonium-nitrogen)	mmol/m^3
0.02	0.016	1.1
0.04	0.03	2.2
0.07	0.05	3.9
0.10	0.08	5.5
0.15	0.12	8.3
0.20	0.16	11
0.30	0.23	17
0.40	0.31	22
0.50	0.39	28

The method cannot be applied for the analysis of sea water.

Disposing of the samples:
The used analysis specimens can be flushed down the drain with tap water and channelled off to the local sewage treatment works.

Interferences:
Primary amines react like ammonium ions giving higher results.
Chlorine-consuming reagents result in low ammonium values.
The temperature of the water sample should be between 18 and 30 °C. Especially low temperatures decrease the reaction rate considerably (low results).



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