

Manganese

Test kit for performing colorimetric tests on manganese ions in surface water and sewage

Method:

Determination of total manganese with formaldoxime

Measurement range:

0.1–1.5 mg/L Mn

Contents of test kit (*refill pack):

sufficient for 70 tests

30 mL Mn-1*

30 mL Mn-2*

4 g Mn-3*

1 measuring spoon 70 mm*

2 screw-plug measuring glasses

1 slide comparator

1 color chart

1 plastic syringe 5 mL

1 instructions for use*

Hazard warning:

Reagent Mn-1 contains paraformaldehyde 1–3% and hydroxylammonium chloride 5–10%, reagent Mn-2 contains ammonia 5–10%.

H314, H317, H351 Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of causing cancer.

P201, P260sh, P280sh, P303+361+353, P305+351+338, P310 Obtain special instructions before use. 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. For further information ask for a safety data sheet.

Instructions for use:

also refer to the pictogram on the back of the color chart

1. Pour a **5 mL water sample** (the pH value of the sample must be between pH 1 and 13) into each of the measuring glasses using the plastic syringe.

Place a measuring glass on position A in the comparator.

Only add the reagent to measuring glass B.

2. Add **5 drops of Mn-1**, seal the glass and mix.

3. Add **7 drops of Mn-2**, seal the glass and mix. Wait **1 min**.

4. Add **1 level measuring spoonful of Mn-3**, seal the glass and shake well.

5. Open the glass after **5 min** and place it on position B in the comparator.

6. Slide the comparator until the colors match in the inspection hole on top. Check the measurement reading in the recess on the comparator reed. Mid-values can be estimated.

7. After use, rinse out both measuring glasses thoroughly and seal them.

The reagents can be used for the **photometric evaluation** with photometer PF-12/PF-12^{Plus}.

The method can be applied also 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:

The following ions will not interfere:

≤ 0,1 mg/L Ni²⁺; ≤ 2 mg/L Cr, Co²⁺; ≤ 20 mg/L Cu²⁺, Fe³⁺;

≤ 50 mg/L Al³⁺, PO₄³⁻

Storage:

Store the test kit in a cool (< 25 °C) and dry place.