

Nickel

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

Method:

In the presence of an oxidizing agent nickel ions react with dimethylglyoxime in an alkaline solution to form a reddish-brown complex.

Measurement range:

0,1 - 1,5 mg/l Ni²⁺

Contents of test kit (*refill pack):

sufficient for 150 tests

10 g	Ni-1*
2 x 20 ml	Ni-2*
1	measuring spoon 70 mm*
2	screw-plug measuring glasses
1	slide comparator
1	colour chart
1	plastic syringe 5 ml
1	instructions for use*

Hazard warning:

Ni-1 contains ammonium peroxodisulfate > 50%. Ni-2 contains sodium hydroxide solution 14%. **May cause sensitization by inhalation and skin contact. Causes severe burns.** Do not breathe dust. Avoid contact with skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection. For further information, please ask for safety data sheets.

Instructions for use:

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

1. Pour a 5 ml water sample 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 **1 measuring spoon of Ni-1**, seal the glass and dissolve by swirling.
3. Add **5 drops of Ni-2**, seal the glass and mix.
4. Open the glass after **1 min** and place it on position B in the comparator.
5. Slide the comparator until the colours match in the inspection hole on top. Check the measurement reading in the recess on the comparator reed. Mid-values can be estimated.
6. After use, rinse out both measuring glasses thoroughly and seal them.

The reagents can be used for the **photometric evaluation** with photometer PF-11.

The method can be applied also for the analysis of sea water after dilution (1+9).

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:

Complexed nickel is not detected by the measurement. It must be decomposed prior to determination.

The following ions do not interfere:

≤ 1 mg/l	Mn ²⁺
≤ 5 mg/l	Co ²⁺ , Cu ²⁺ , Fe ³⁺
≤ 10 mg/l	Cr ³⁺ , Zn ²⁺

Storage:

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