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 Ni

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 color chart
  1 plastic syringe 5 mL
  1 instructions for use*

Hazard warning:
Reagent Ni-1 contains ammonium peroxodisulfate 20–100 %, reagent Ni-2 contains sodium hydroxide solution 5–20 %. H314, H317, H334 Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. P260, P261, P272, P280, P301+330+331, P302+352, P303+361+353, P304+340, P305+351+338, P333+313, P342+311, P363, P501 Do not breathe vapors. Avoid breathing dust. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/eye protection. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of water/. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. If experiencing respiratory symptoms: Call a POISON CENTER/doctor/… Wash contaminated clothing before reuse. Dispose of contents/container to regulated waste treatment. 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 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 colors 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-12.
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 Mn²⁺
  ≤ 5 mg/L Co²⁺, Cu²⁺, Fe³⁺
  ≤ 10 mg/L Cr³⁺, Zn²⁺

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

Product data and ordering information
<table>
<thead>
<tr>
<th>REF</th>
<th>931 040 (931 240)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>colorimetric test kit (refill pack)</td>
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<tr>
<td>Range</td>
<td>0 - 0.1 - 0.2 - 0.3 - 0.5 - 0.7 - 0.9 - 1.2 - 1.5 mg/L (ppm) Ni²⁺</td>
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<tr>
<td>Sufficient for</td>
<td>150 determinations</td>
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<td>Shelf life</td>
<td>at least 1.5 years</td>
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<tr>
<td>Sea water suitability</td>
<td>yes, after dilution (1+9)</td>
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<tr>
<td>Detectable with PF-12</td>
<td>yes</td>
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