

**Nickel T****257****0.1 - 10 mg/l Ni****Nioxime**

Instrument specific information

The test can be performed on the following devices. In addition, the required cuvette and the absorption range of the photometer are indicated.

| Instrument Type | Cuvette | λ | Measuring Range |
|---|---------|-----------|------------------|
| MD 600, MD 610, MD 640, MultiDirect, XD 7000, XD 7500 | ø 24 mm | 560 nm | 0.1 - 10 mg/l Ni |

Material

Required material (partly optional):

| Reagents | Packaging Unit | Part Number |
|--------------|----------------|-------------|
| Nickel No. 1 | Tablet / 100 | 515630BT |
| Nickel No. 1 | Tablet / 250 | 515631BT |
| Nickel No. 2 | Tablet / 100 | 515640BT |
| Nickel No. 2 | Tablet / 250 | 515641BT |

Application List

- Galvanization
- Raw Water Treatment
- Waste Water Treatment

Preperation

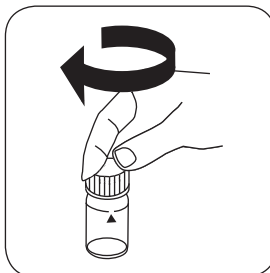
1. In the presence of iron, add a spoon of Nickel PT powder to the sample (after the addition of Nickel No. 1 Tablet) and mix.

Implementation of the provision Nickel with Tablet

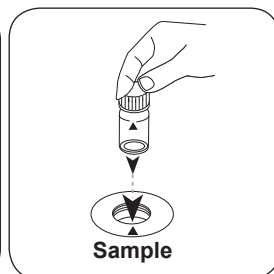
Select the method on the device



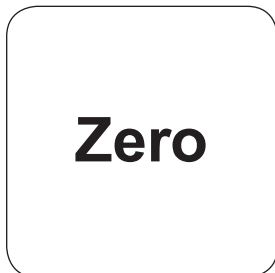
Fill 24 mm vial with **10 ml sample**.



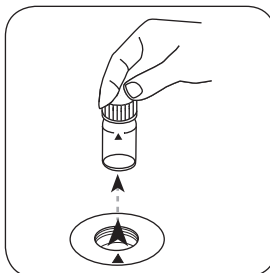
Close vial(s).



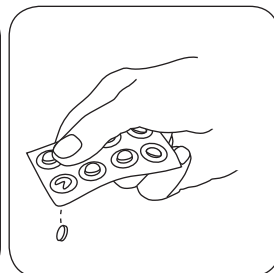
Place **sample vial** in the sample chamber. • Pay attention to the positioning.



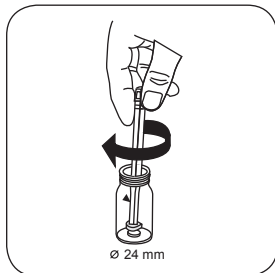
Press the **ZERO** button.



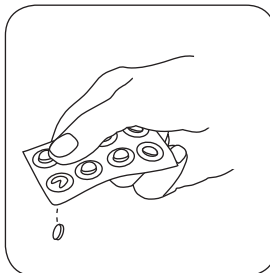
Remove the vial from the sample chamber.



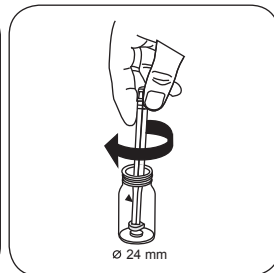
Add **NICKEL No. 1 tablet**.



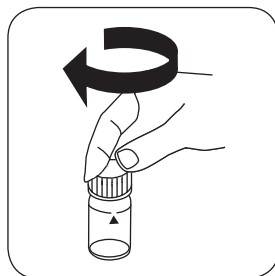
Crush tablet(s) by rotating slightly and dissolve.



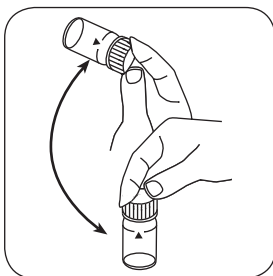
Add **NICKEL No. 2 tablet**.



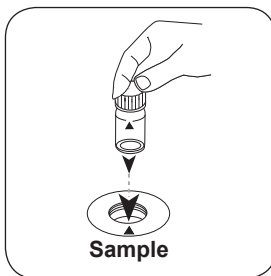
Crush tablet(s) by rotating slightly.



Close vial(s).



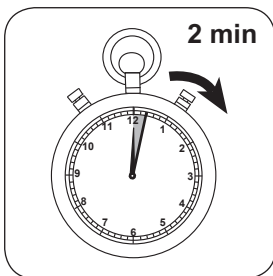
Dissolve tablet(s) by inverting.



Place **sample vial** in the sample chamber. • Pay attention to the positioning.



Press the **TEST** (XD: **START**) button.



Wait for **2 minute(s) reaction time**.

Once the reaction period is finished, the measurement takes place automatically.

The result in mg/l Nickel appears on the display.

Chemical Method

Nioxime

Appendix

Interferences

Removeable Interferences

- Iron interferes with the test. The error can be eliminated by adding a measuring spoon of sodium Hexametaphosphate.

| Interference | from / [mg/l] |
|--------------|---------------|
| Co | 0,5 |
| EDTA | 25 |

Bibliography

R.B. Singh, B.S. Garg, R.P. Singh (1978), Oximes as Spectrometric reagents- A Review, Talanta, 26, pp. 425-444

^{a)} determination of free, combined and total | ^{b)} Reactor is necessary for COD (150 °C), TOC (120 °C) and total -chromium, - phosphate, -nitrogen, (100 °C) | ^{c)} MultiDirect: Adapter is necessary for Vacu-vials® (Order code 19 20 75) | ^{d)} Spectroquant® is a Merck KGaA Trademark | ^{e)} alternative reagent, used instead of DPD No.1/No.3 in case of turbidity in the water sample caused by high concentration of calcium and/or high conductivity | ^{f)} additionally required for determination of bromine, chlorine dioxide and ozone in the presence of chlorine | ^{g)} Reagent recovers most insoluble iron oxides without digestion | ^{h)} additionally required for samples with hardness values above 300 mg/l CaCO₃ | ⁱ⁾ high range by dilution | ^{j)} including stirring rod, 10 cm