



Nitrite HR TT

M276

0.3 - 3 mg/L N

Sulfanilic / Naphthylamine

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, SpectroDirect, XD 7000, XD 7500 | ø 16 mm | 545 nm | 0.3 - 3 mg/L N |

Material

Required material (partly optional):

| Reagents | Packaging Unit | Part Number |
|-----------------|----------------|-------------|
| Nitrite HR / 25 | 1 pc. | 2423470 |
| Nitrite / 25 | 1 pc. | 2419018 |

The following accessories are required.

| Accessories | Packaging Unit | Part Number |
|------------------------------|----------------|-------------|
| Measuring spoon no. 8, black | 1 pc. | 424513 |

Application List

- Galvanization
- Waste Water Treatment
- Drinking Water Treatment
- Raw Water Treatment

Preparation

1. The test sample and the reagents should be at room temperature when undertaking the test.

**Notes**

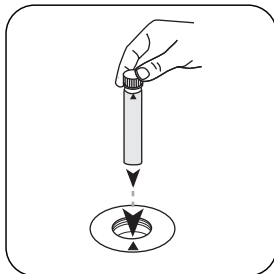
1. The reagents are to be stored in closed containers at a temperature of +4 °C – +8 °C.



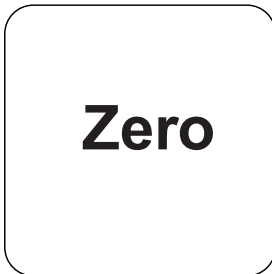
Determination of Nitrite HR with Vial Test

Select the method on the device.

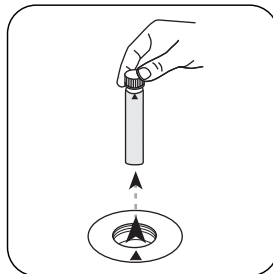
For this method, a ZERO measurement does not have to be carried out every time on the following devices: XD 7000, XD 7500



Place the supplied Zero vial (red sticker) in the sample chamber. • Pay attention to the positioning.

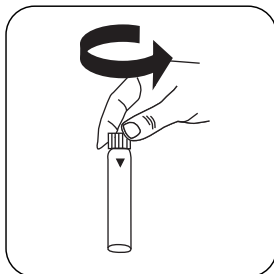


Press the **ZERO** button.

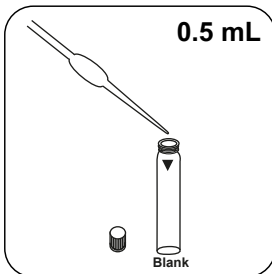


Remove **vial** from the sample chamber.

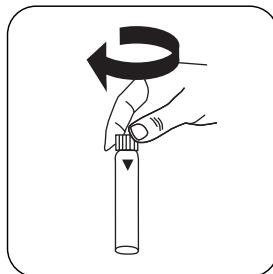
For devices that require **no ZERO measurement** , start here.



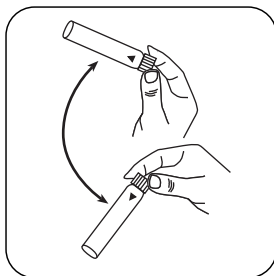
Open **digestion vial** .



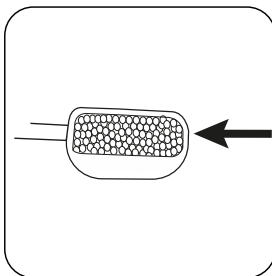
Put **0.5 mL sample** in the vial.



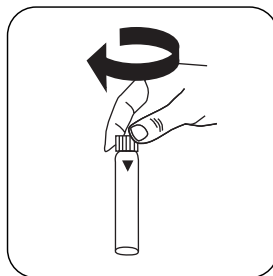
Close vial(s).



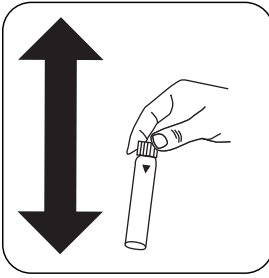
Invert several times to mix the contents.



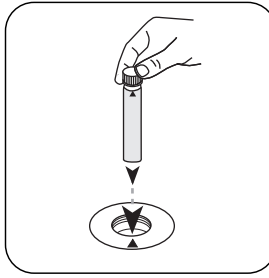
Add a level measuring scoop No. 8 (black) Nitrite-101 .



Close vial(s).



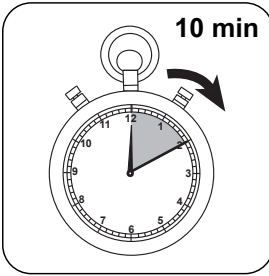
Dissolve the contents by shaking.



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



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



Wait for **10 minute(s) reaction time**.

Once the reaction period is finished, the measurement takes place automatically. The result in mg/L Nitrite appears on the display.



Analyses

The following table identifies the output values can be converted into other citation forms.

| Unit | Cite form | Scale Factor |
|------|-----------------|--------------|
| mg/l | N | 1 |
| mg/l | NO ₂ | 3.2846 |

Chemical Method

Sulfanilic / Naphthylamine

Appendix

Calibration function for 3rd-party photometers

Conc. = a + b•Abs + c•Abs² + d•Abs³ + e•Abs⁴ + f•Abs⁵

ø 16 mm

| | |
|---|-----------------------------|
| a | -3.31219 • 10 ⁻² |
| b | 7.53948 • 10 ⁺⁰ |
| c | |
| d | |
| e | |
| f | |

Interferences

| Interference | from / [mg/L] |
|--------------------------------|-------------------------|
| Fe ³⁺ | 20 |
| Fe ²⁺ | 50 |
| Cu ²⁺ | 500 |
| Cr ³⁺ | 500 |
| Al ³⁺ | 1000 |
| Cd ²⁺ | 1000 |
| total hardness | 178,6 mmol/l (1000 °dH) |
| CrO ₄ ²⁻ | 0,5 |
| p-PO ₄ | 10 |
| S ²⁻ | 50 |

| Interference | from / [mg/L] |
|---------------------------------|------------------------|
| SO ₃ ²⁻ | 50 |
| NO ₃ ⁻ | 100 |
| HCO ₃ ⁻ | 143,2 mmol/l (400 °dH) |
| Hg ²⁺ | 1000 |
| Mn ²⁺ | 1000 |
| NH ₄ ⁺ | 1000 |
| Ni ²⁺ | 1000 |
| Pb ²⁺ | 1000 |
| Zn ²⁺ | 1000 |
| Cl ⁻ | 1000 |
| CN ⁻ | 1000 |
| EDTA | 1000 |
| o-PO ₄ ³⁻ | 1000 |
| SO ₄ ²⁻ | 1000 |

Method Validation

| | |
|--------------------------------|-----------------|
| Limit of Detection | 0.05 mg/L |
| Limit of Quantification | 0.15 mg/L |
| End of Measuring Range | 3 mg/L |
| Sensitivity | 8.54 mg/L / Abs |
| Confidence Intervall | 0.61 mg/L |
| Standard Deviation | 0.25 mg/L |
| Variation Coefficient | 15.16 % |

Derived from

DIN EN 26777
ISO 6777