

Nitrite HR PP

M273

2 - 250 mg/L NO<sub>2</sub><sup>-</sup>

Ferrous Sulfate Method

### 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	$\lambda$	Measuring Range
MD 600, MD 610, MD 640	ø 24 mm	560 nm	2 - 250 mg/L NO <sub>2</sub> <sup>-</sup>
SpectroDirect, XD 7000, XD 7500	ø 24 mm	585 nm	2 - 250 mg/L NO <sub>2</sub> <sup>-</sup>

### Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
VARIO Nitri NT-2 F10	Powder / 100 pc.	530280

### Application List

- Cooling Water
- Boiler Water



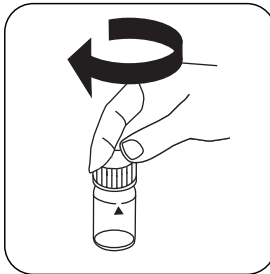


## Determination of Nitrite HR with Powder Pack

Select the method on the device.



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



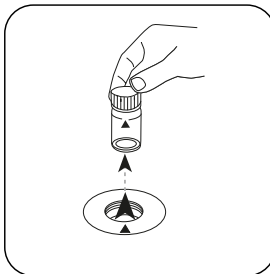
Close vial(s).



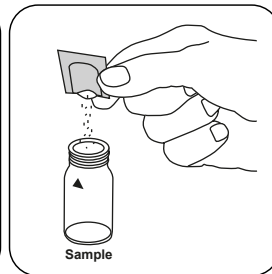
Place **sample vial** in the sample chamber. Pay attention to the positioning.



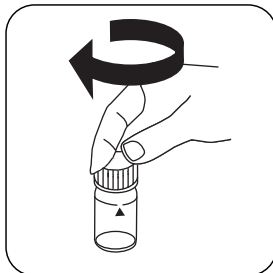
Press the **ZERO** button.



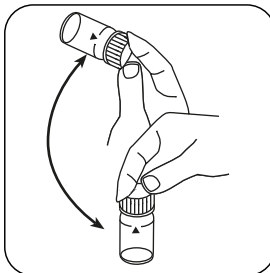
Remove the vial from the sample chamber.



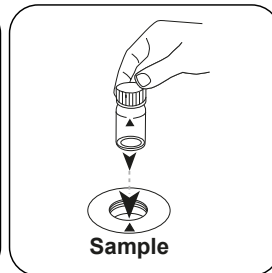
Add **VARIO NITRI NT-2 F10 powder pack**.



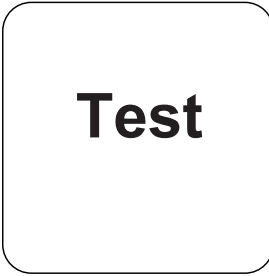
Close vial(s).



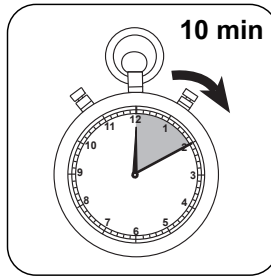
Invert several times to mix the contents (20 sec.).



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 NO<sub>2</sub><sup>-</sup> 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 <sub>2</sub>	3.2846

## Chemical Method

Ferrous Sulfate Method

### Calibration function for 3rd-party photometers

$$\text{Conc.} = a + b \cdot \text{Abs} + c \cdot \text{Abs}^2 + d \cdot \text{Abs}^3 + e \cdot \text{Abs}^4 + f \cdot \text{Abs}^5$$

	∅ 24 mm	□ 10 mm
a	$1.9063 \cdot 10^0$	$1.9063 \cdot 10^0$
b	$1.4494 \cdot 10^{-2}$	$3.1162 \cdot 10^{-2}$
c		
d		
e		
f		

## Method Validation

Limit of Detection	1 mg/L
Limit of Quantification	3 mg/L
End of Measuring Range	250 mg/L
Sensitivity	145 mg/L / Abs
Confidence Intervall	4.7 mg/L
Standard Deviation	2.0 mg/L
Variation Coefficient	1.55%