

Nitrite HR PP

M273

2 - 250 mg/L NO₂⁻

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	λ	Measuring Range
MD 600, MD 610, MD 640	ø 24 mm	560 nm	2 - 250 mg/L NO ₂ ⁻
SpectroDirect, XD 7000, XD 7500	ø 24 mm	585 nm	2 - 250 mg/L NO ₂ ⁻

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



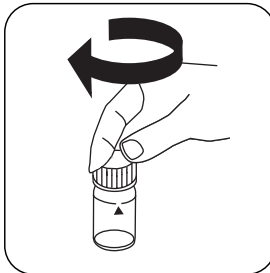


Determination of Nitrite HR with Powder Pack

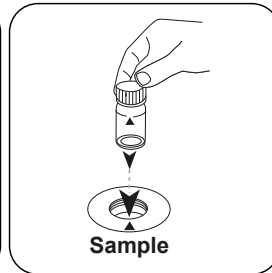
Select the method on the device.



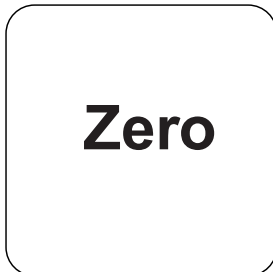
Fill 24 mm vial with **10 mL sample**.



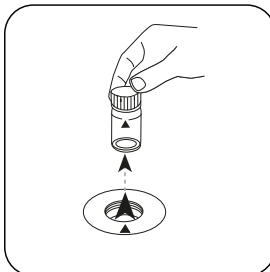
Close vial(s).



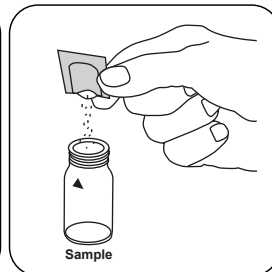
Place **sample vial** in the sample chamber. Pay attention to the positioning.



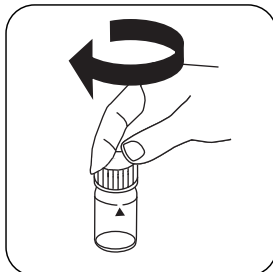
Press the **ZERO** button.



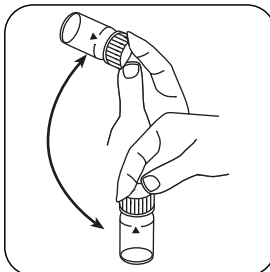
Remove the vial from the sample chamber.



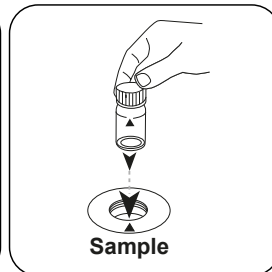
Add **VARIO NITRI NT-2 F10 powder pack**.



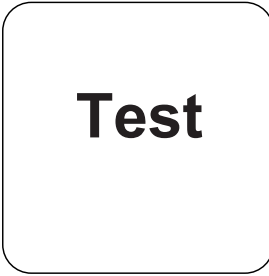
Close vial(s).



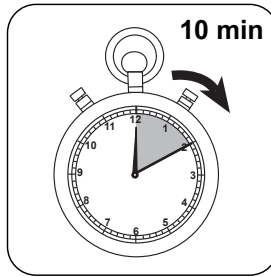
Invert several times to mix the contents (20 sec.).



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 NO₂⁻ 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

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%