



Sulphate PP

M360

5 - 100 mg/L SO₄²⁻SO₄

Bariumsulphate Turbidity

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 100, MD 110, MD 600, MD 610, MD 640, MultiDirect, PM 620, PM 630, SpectroDirect, XD 7000, XD 7500	ø 24 mm	530 nm	5 - 100 mg/L SO ₄ ²⁻

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
VARIO Sulfa 4 F10	Powder / 100 pc.	532160
ValidCheck Sulfat 75 mg/l	1 pc.	48311325

Application List

- Waste Water Treatment
- Cooling Water
- Drinking Water Treatment
- Raw Water Treatment

Notes

1. Sulphate causes a finely distributed turbidity.





Determination of Sulphate with Vario Powder Pack

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



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



Close vial(s).



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

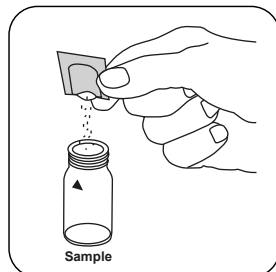


Press the **ZERO** button.

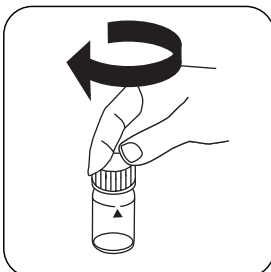


Remove the vial from the sample chamber.

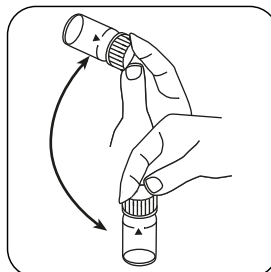
For devices that require **no ZERO measurement**, start here.



Add **Vario Sulpha 4/ F10 powder pack**.



Close vial(s).



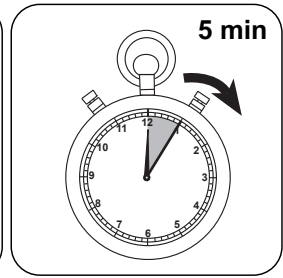
Invert several times to mix the contents.



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



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



Wait for **5 minute(s) reaction time**.

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

The result in mg/L Sulphate appears on the display.



Chemical Method

Bariumsulphate Turbidity

Appendix

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	$2.42421 \cdot 10^0$	$2.42421 \cdot 10^0$
b	$1.07243 \cdot 10^{+2}$	$2.30572 \cdot 10^{+2}$
c	$-1.11466 \cdot 10^{+2}$	$-5.15249 \cdot 10^{+2}$
d	$7.93311 \cdot 10^{+1}$	$7.88423 \cdot 10^{+2}$
e	$-1.88194 \cdot 10^{+1}$	$-4.02123 \cdot 10^{+2}$
f		

According to

Standard Method 4500-SO42- E
US EPA 375.4

Derived from

DIN ISO 15923-1 D49