



Hydrazine P

M205

0.05 - 0.5 mg/L N₂H₄

Hydr

Dimethylaminobenzaldehyde

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	ø 24 mm	430 nm	0.05 - 0.5 mg/L N ₂ H ₄
SpectroDirect, XD 7000, XD 7500	ø 24 mm	455 nm	0.05 - 0.5 mg/L N ₂ H ₄

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
Hydrazine Test Powder	Powder / 30 g	462910

The following accessories are required.

Accessories	Packaging Unit	Part Number
Measuring spoon, 1 g	1 pc.	384930

Application List

- Boiler Water
- Cooling Water

Preparation

1. If the water sample is turbid, it must be filtered before performing the zeroing.
2. The sample's temperature should not exceed 21 °C.



Notes

1. When using the hydrazine measuring spoon, 1 g is a level measuring spoon.
2. For removal of the reagents resulting in turbidity, ensure to use a quality membrane filter for medium deposits.
3. To check the reagent for prolonged storage and possible ageing, follow the test as described for tap water. Should the result of the value of the detection limit of 0.05 mg/L be exceeded, the reagent may only be used with restrictions (larger measured value deviations).



Determination of Hydrazine with Powder Reagent

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.

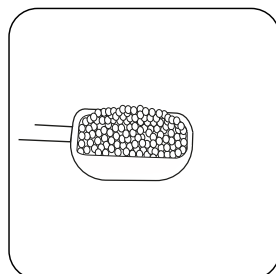


Press the **ZERO** button.

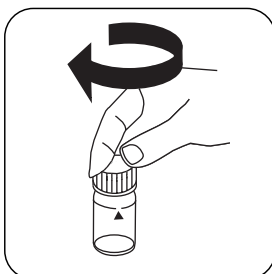


Remove the vial from the sample chamber.

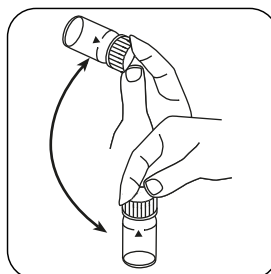
For devices that require **no ZERO measurement**, start here.



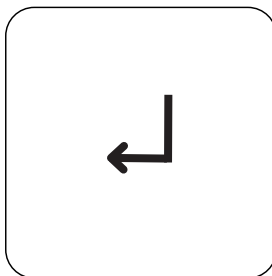
Add **1 g HYDRAZIN Test powder**.



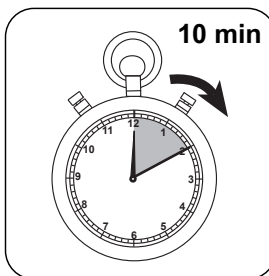
Close vial(s).



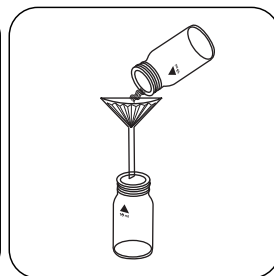
Invert several times to mix the contents.



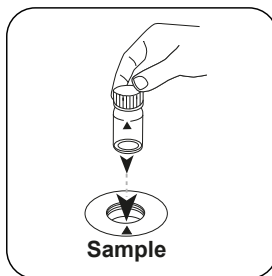
Press the **ENTER** button.



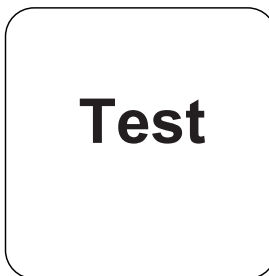
Wait for **10 minute(s)** reaction time.



Any slight turbidity that occurs must be removed by filtration.

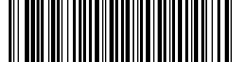


Place **sample vial** in the sample chamber. Pay attention to the positioning.



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

The result in Hydrazine appears on the display.



Chemical Method

Dimethylaminobenzaldehyde

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	$-6.53427 \cdot 10^0$	$-3.53427 \cdot 10^0$
b	$3.34209 \cdot 10^{+2}$	$7.12489 \cdot 10^{+2}$
c		
d		
e		
f		

Interferences

Removeable Interferences

- Interferences as a result of highly coloured or turbid samples: Mix 1 part deionised water with 1 part household bleach. Add 1 drop of this mixture into a 25 ml water sample and mix. Use 10 ml prepared sample in place of deionised water in point 1.
Note: For measuring water samples, an unprepared sample must be used.
Principle: hydrazine is oxidised by household bleach. Colour interference will be eliminated by zeroing.

Interference	from / [mg/L]
NH_4^+	10
$\text{C}_4\text{H}_9\text{NO}$	10
VO_4^{3-}	1

Derived from

DIN 38413-P1