

# Total Chlorine

DPD-Reagent for the photometric determination of total chlorine or ozone in drinking water, swimming pools and water reservoirs

## Measuring range:

0.03 – 6.00 mg/L Cl<sub>2</sub> [method 7211]

0.03 – 4.00 mg/L O<sub>3</sub> [method 7212]

## Method:

Photometric determination of total chlorine or ozone. At a pH value of 6.2 to 6.5 in a phosphate buffered system, free chlorine reacts with *N,N*-diethyl-1,4-phenylene diamine (DPD) and forms a red-violet dye. In the presence of iodide ions, the content of total chlorine or ozone can be determined. In order to obtain accurate results the sample must be analyzed immediately after collection and cannot be preserved for later analysis. Bubbles in the sample cell can cause higher results and must be avoided. This may require an additional gentle shaking. To increase the accuracy, it is recommended to perform the measurement with reagent blank value. Test a sample of distilled water (REF 918932) to generate a blank value for the reagent.

## Hazard warning:

Information regarding safety can be found on the box' label and in the safety data sheet. You can download the SDS from [www.mn-net.com/SDS](http://www.mn-net.com/SDS).

## Procedure:

Requisite accessories: 2 test tubes 16 mm OD (REF 91680) or 2 test tubes 24 mm OD (REF 936101)

- 1 Rinse test tube several times with sample (*pH value of sample must be between pH 4 and 8*)

## Blank (optional):

- 2 Fill one test tube with 5 mL\* of sample
- 3 Clean test tube
- 4 Place test tube in photometer as blank value and adjust for zero

## Sample:

- 5 Fill another test tube with 5 mL\* of sample
- 6 Add content of 1 Powder Pillow total Chlorine
- 7 Close test tube and shake well
- 8 Clean test tube
- 9 Wait for 2 min
- 10 Measure

\*Alternative procedure: Use 10 mL of sample.

## Measurement:

See manual for all MACHEREY-NAGEL photometers.  
After use, rinse out test tubes thoroughly and seal them.  
Suitable for the analysis of sea water.

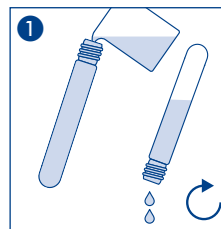
## Interferences:

The temperature of the water sample should be between 10 °C and 50 °C.

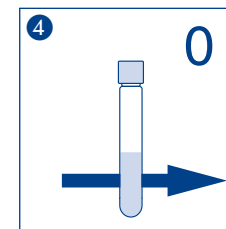
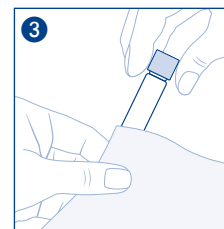
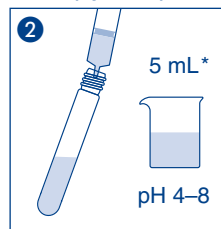
Br<sub>2</sub> and I<sub>2</sub> interfere at all levels.

Manganese compounds in high oxidation states interfere at all levels.

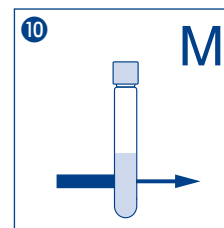
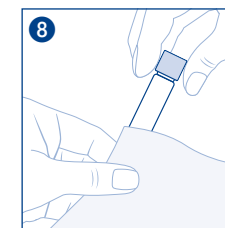
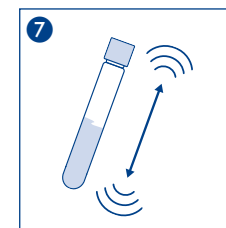
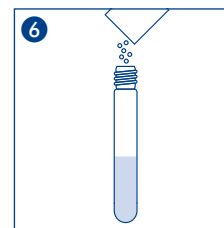
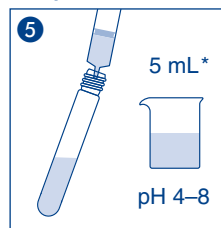
ClO<sub>2</sub> and other oxidizing agents interfere at all levels.



## Blank (optional):



## Sample:



## Disposal of samples:

Information regarding disposal can be found in the safety data sheet. You can download the SDS from [www.mn-net.com/SDS](http://www.mn-net.com/SDS).

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Rev: 2025-03