



**Fluorescein**

**510**

**10 - 400 ppb**

**Fluorescence**

### 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 640		395 nm	10 - 400 ppb

### Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
no reagent required		

### Application List

- Cooling Water

### Preperation

1. Calibrate the instrument if verification result is not  $75 \pm 8$  ppb.
2. The Fluorescein Calibration Set should be used to calibrate the instrument.
3. Before use, clean the vials and the accessories.
4. The outside of the vial must be clean and dry before starting the analysis. Clean the outside of the vials with a towel. Fingerprints or other marks will be removed.
5. The photometer is already factory calibrated, or the instrument was calibrated by the user. It is recommended to verify calibration accuracy by a 75 ppb Standard measurement:
  - when in doubt about last calibration or accuracy of results
  - once a month
 The verification measurement shall be done like a sample measurement and the result of a 75 ppb standard shall be  $75 \pm 8$  ppb.

## Notes

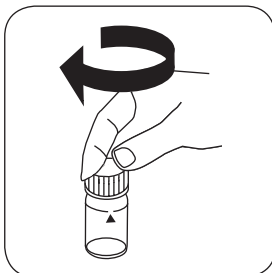
1. Use only vials with black lids for Fluorescein measurements.
2. Large temperature differences between the instrument and the environment can lead to errors. For best results, perform tests with sample temperatures between 20 °C (68 °F) and 25 °C (77 °F).
3. Vials and caps should be cleaned thoroughly after each analysis to prevent interferences.
4. To ensure maximum accuracy of test results, always use the reagent systems supplied by the instrument manufacturer.
5. Do not pour used standards back into the bottle.
6. Implementation of a spiking procedure possible (see manual).

## Implementation of the provision Fluorescein

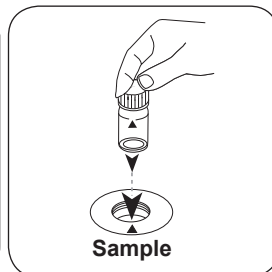
Select the method on the device



Fill Fluorescein mm vial with  
**10 ml sample.**



Close vial(s).



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

# Test

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

The result in ppb Fluorescein appears on the display.

## Chemical Method

### Fluorescence

<sup>a)</sup> determination of free, combined and total | <sup>b)</sup> Reactor is necessary for COD (150 °C), TOC (120 °C) and total -chromium, - phosphate, -nitrogen, (100 °C) | <sup>c)</sup> MultiDirect: Adapter is necessary for Vacu-vials® (Order code 19 20 75) | <sup>d)</sup> Spectroquant® is a Merck KGaA Trademark | <sup>e)</sup> alternative reagent, used instead of DPD No.1/No.3 in case of turbidity in the water sample caused by high concentration of calcium and/or high conductivity | <sup>f)</sup> additionally required for determination of bromine, chlorine dioxide and ozone in the presence of chlorine | <sup>g)</sup> Reagent recovers most insoluble iron oxides without digestion | <sup>h)</sup> additionally required for samples with hardness values above 300 mg/l CaCO<sub>3</sub> | <sup>i)</sup> high range by dilution | <sup>\*</sup> including stirring rod, 10 cm