

# visocolor® HE Phosphate

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## High sensitivity test kit for the determination in the range of 0.05–1.0 mg/L P

### Method:

Phosphomolybdenum blue

### Contents of test kit (\*refill pack):

sufficient for 300 tests

100 mL P-1\*

100 mL P-2\*

2 round glass tubes with screw caps

1 comparator block

1 colour comparison disc Phosphate

### Hazard warning:

P-1 contains sulphuric acid 30%. P-2 contains sodium disulfite < 25%.

**Causes severe burns. Risk of serious damage to eyes.** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eye/face protection. For further information please ask for safety data sheets.

### Procedure:

1. Place comparator block into the position provided in the box (see illustration).
2. Insert colour comparison disc.
3. Open both round glass tubes, rinse several times with the water sample and fill up to the mark with the sample.
4. Add **6 drops P-1** to the right glass tube, close and mix.
5. Add **6 drops P-2** to the right glass tube, close and mix.  
Wait **10 min**.
6. Reading: Turn colour disc until both colours match by transmitted light from above. Read test results from the mark on the front side of the comparator. Intermediate values can be estimated.
7. After use clean both round glass tubes thoroughly and close.

The method can be applied also for the analysis of sea water.

### Disposing of the samples:

The used analysis specimens can be flushed down the drain with tap water and channelled off to the local sewage treatment works.

### Interferences:

Oxidizing agents in larger amounts inhibit formation of the blue colour complex. They must be destroyed prior to the determination.

The following ions will not interfere:

≤ 1 mg/L Si(IV)

≤ 2 mg/L H<sub>2</sub>S

≤ 10 mg/L heavy metals

The temperature of the water sample should be between 18 and 30 °C. Outside this range the rate of the reaction decreases by finding less phosphate than actually present.

### Conversion table:

mg/L P	mg/L PO <sub>4</sub> <sup>3-</sup>	mg/L P <sub>2</sub> O <sub>5</sub>	mmol/m <sup>3</sup>
0.05	0.15	0.11	1.6
0.10	0.31	0.23	3.2
0.15	0.46	0.34	4.8
0.20	0.61	0.46	6.5
0.3	0.9	0.7	10
0.4	1.2	0.9	13
0.6	1.8	1.4	19
0.8	2.5	1.8	26
1.0	3.1	2.3	32



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