

# QUANTOFIX® Phosphate

## Pack content:

1 aluminum container with 100 test strips  
1 bottle  $\text{PO}_4^{3-}-1$   
1 bottle  $\text{PO}_4^{3-}-2$   
1 measuring vessel with 5 mL mark  
1 test tube

## Measuring range:

Visually  
3–100 mg/L  $\text{PO}_4^{3-}$   
Reflectometrically  
3–80 mg/L  $\text{PO}_4^{3-}$

## Color gradation:

0 · 3 · 10 · 25 · 50 · 100 mg/L  $\text{PO}_4^{3-}$

## Safety precautions:

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).

## General indications:

Remove only as many test strips as are required. Close the container immediately after removing a strip. Do not touch the test field.

## Instructions for use:

1. Rinse the measuring vessel with the test solution and fill it to the 5 mL mark.
2. Add 5 drops  $\text{PO}_4^{3-}-1$  (nitric acid) to the sample.
3. Shake carefully.
4. Place the measuring vessel on the benchtop and remove the test tube from the package.
5. Place the test tube into the cavity of the thermoformed mould.
6. Add 6 drops  $\text{PO}_4^{3-}-2$  to the test tube.
7. Insert the test strip into the sample.
8. Wait 15 seconds.
9. Shake off excess liquid.
10. Place test strip into the filled test tube.
11. Wait 15 seconds.
12. Shake off excess liquid.
13. Wait 60 seconds.
14. Compare with the color scale.

If phosphate ions are present, the test field turns blue-green.

## Interferences:

This test only detects ortho-phosphate. Other phosphates, such as poly-, pyro- and metaphosphates have to be broken down from the total phosphate by digestion. Silicic acid ( $\text{SiO}$ ) contents above 10 mg/L reacts in the same way giving a blue colouration thus simulating a higher phosphate concentration. Larger concentrations of sulfide ions ( $\text{S}^{2-}$ ) cause a brown color of the test field, and smaller concentrations lead to low test results.

The following ions didn't interfere the determination:

< 1000 mg/L  $\text{Ag}^+$ ,  $\text{Al}^{3+}$ ,  $\text{Cd}^{2+}$ ,  $\text{Co}^{2+}$ ,  $\text{Cr}_3^+$ ,  $\text{Mg}^{2+}$ ,  $\text{Mn}^{2+}$ ,  $\text{NH}_4^+$ ,  $\text{Ni}^{2+}$ ,  $\text{Zn}^{2+}$ ,  $\text{Cl}^-$ ,  $\text{F}^-$ ,  $\text{NO}_3^-$ ,  $\text{SO}_4^{2-}$ , citrate, oxalate, tartrate,  
< 500 mg/L  $\text{Ca}^{2+}$ ,  
< 250 mg/L  $\text{Pb}^{2+}$ ,  
< 50 mg/L  $\text{Cu}^{2+}$ ,  
< 25 mg/L  $\text{Fe}^{3+}$ ,  
< 5 mg/L  $\text{Fe}^{2+}$ ,  
< 2 mg/L  $\text{NO}_2^-$ .

Conversion factors: 1.0 mg  $\text{PO}_4^{3-}$  = 0.75 mg  $\text{P}_2\text{O}_7^{4-}$  = 0.33 mg P.

## Additional information:

The test strip container stopper contains a non-toxic drying agent. If swallowed, drink plenty of water.

## Disposal:

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).

## Storage:

Avoid exposing the strips to sunlight and moisture. Keep container cool and dry (storage temperature 4–30 °C).

If correctly stored, the test strips may be used until the use-by-date printed on the packaging.

