

Phosphate HR CHEMets® Kit

K-8520D/R-8510: 10 - 100 ppm PO₄

Sample Temperature

Sample temperatures that deviate significantly from 20°C (68°F) may introduce test result bias.

Test Procedure

1. Using the syringe provided, obtain **2.5 mL** of the sample to be tested, and then dispense it into the empty sample cup (fig. 1).
2. Dilute the contents of the sample cup to the **25 mL mark with distilled water** (fig. 1).
3. Add **2 drops** of S-8500 Activator solution (fig. 2). Stir to mix the contents of the cup.
4. Place the CHEMet ampoule, tip first, into the sample cup. Snap the tip. The ampoule will fill leaving a bubble for mixing (fig. 3).
5. To mix the ampoule, invert it several times, allowing the bubble to travel from end to end.
6. Dry the ampoule. Obtain a test result **2 minutes** after snapping the tip.
7. Obtain a test result by placing the ampoule between the color standards until the best color match is found (fig. 4).

NOTE: Use the 10 - 100 ppm concentration scale on the comparator label.

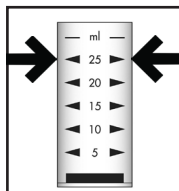


Figure 1

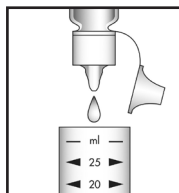


Figure 2

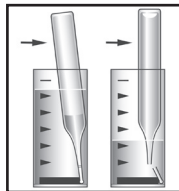


Figure 3

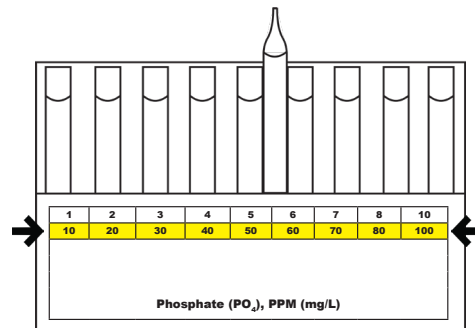


Figure 4

Test Method

The Phosphate CHEMets®¹ test kit employs the stannous chloride chemistry.² In an acidic solution, ortho-phosphate reacts with ammonium molybdate to form molybdophosphoric acid, which is then reduced by stannous chloride to the intensely colored molybdenum blue. The resulting blue color is directly proportional to the phosphate concentration. Condensed phosphates (pyro-, meta- and other polyphosphates) and organically bound phosphates do not respond to this test. Sulfide, thiosulfate, and thiocyanate will cause low test results.

1. CHEMets is a registered trademark of AquaPhoenix Scientific, LLC U.S. Patent No. 3,634,038

2. APHA Standard Methods, 23rd ed., Method 4500-P D - 2005

Safety Information

Read SDS before performing this test procedure. Wear safety glasses and protective gloves.