

# Phosphate CHEMets® 10 - 150 ppm

## Safety Information

Read MSDS before performing this test procedure. Wear safety glasses.

## Test Procedure

1. Fill the sample cup to the 25 mL mark with the sample (fig 1).
2. Place the CHEMet ampoule in the sample cup. Snap the tip by pressing the ampoule against the side of the cup. The ampoule will fill leaving a small bubble to facilitate mixing (fig 2).
3. Mix the contents of the ampoule by inverting it several times, allowing the bubble to travel from end to end each time. Wipe all liquid from the exterior of the ampoule. Wait **5 minutes** for color development.
4. Hold the comparator in a nearly horizontal position while standing directly beneath a bright source of light. Place the CHEMet ampoule between the color standards moving it from left to right along the comparator until the best color match is found (fig 3). If the color of the CHEMet ampoule is between two color standards, a concentration estimate can be made.

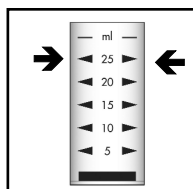


Figure 1

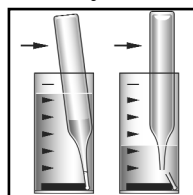


Figure 2

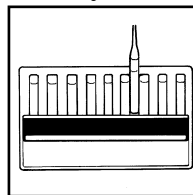


Figure 3

## Test Method

The Phosphate CHEMets®<sup>1</sup> test method employs the vanadomolybdophosphoric acid chemistry.<sup>2,3</sup> In an acidic solution, ortho-phosphate reacts with ammonium molybdate and ammonium vanadate to produce a yellow colored complex in direct proportion to the phosphate concentration. Results are expressed in ppm (mg/Liter) PO<sub>4</sub>.

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 CHEMetrics, Inc. U.S. Patent No. 3,634,038
2. APHA Standard Methods, 20th ed., p 4-144, method 4500-P C (1998)
3. ASTM D 515 - 82, Phosphorus in Water, Test Method C--Colorimetric Molybdo-vanadophosphate Method

## Reorder Information

## Cat. No.

<i>Test Kit, complete</i> . . . . .	<i>K-8515</i>
<i>Refill, 30 CHEMet ampoules</i> . . . . .	<i>R-8515</i>
<i>Sample Cup, 25 mL, package of six</i> . . . . .	<i>A-0013</i>
<i>Comparator, 10-150 ppm</i> . . . . .	<i>C-8515</i>



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[www.chemetrics.com](http://www.chemetrics.com) Jan. 07, Rev. 3