Hydrogen Peroxide CHEMets® Kit

K-5502/R-7904: 0 - 0.50 ppm

Test Procedure

1. Fill the sample cup to the 25 mL mark with the sample to be tested (fig. 1).
2. Add 5 drops of S-2500 Activator Solution and 2 drops of S-5500 Activator Solution (fig. 2). Stir to mix the contents of the cup.
3. Wait **6 minutes.**
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 **1 minute** after snapping the tip.
7. Obtain a test result by placing the ampoule, flat end first, into the comparator. Hold the comparator up toward a source of light and view from the bottom. Rotate the comparator until the best color match is found (fig. 4).

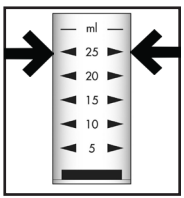

Figure 1

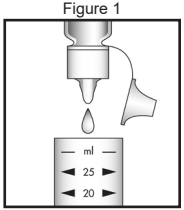

Figure 2

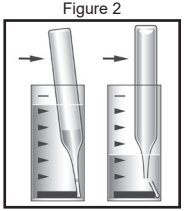
Figure 3

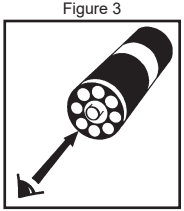
Figure 4

Test Method

The Hydrogen Peroxide CHEMets®[1] test kit employs the DPD chemistry.[2,3,4] The sample is treated with an excess of potassium iodide. In the presence of a molybdate catalyst, hydrogen peroxide oxidizes the iodide to iodine. The iodine then oxidizes DPD (N,N-diethyl-p-phenylenediamine) to form a pink colored species in direct proportion to the hydrogen peroxide concentration.

Various oxidizing agents such as halogens, ozone and peracetic acid will produce high 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-Cl G - 2000
3. EPA Methods for Chemical Analysis of Water and Wastes, Method 330.5 (1983)
4. D. F. Boltz and J. A. Howell, eds., Colorimetric Determination of Nonmetals, 2nd ed., Vol. 8, p. 303 (1978)

Safety Information

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

CHEMetrics®
By AquaPhoenix Scientific

Mar. 24, Rev. 9