Hydrogen Peroxide VACUettes® Kit

K-5510D/R-5510D: 0 - 25 & 30 - 300 ppm
K-5510A/R-5510A: 0 - 50 & 60 - 600 ppm
K-5510B/R-5510B: 0 - 100 & 120 - 1200 ppm
K-5510C/R-5510C: 0 - 1000 & 1200 - 12,000 ppm

Test Procedure

1. Fill the dilutor snapper cup to the -ml- mark with **distilled water** (fig. 1).
2. Fill the micro-test tube approximately halfway with the sample to be tested (fig. 2).
3. Make sure that the VACUette tip is firmly attached to the ampoule tip.
4. Holding the VACUette almost horizontally, touch the tip to the contents of the micro-test tube (fig. 2).
   NOTE: The capillary tip will fill completely with sample.
5. **Required for R-5510D only:** Pull the VACUette into a vertical position. A small portion of the collected sample should fall into the sleeve of the VACUette tip (fig. 3).
   NOTE: If none of the sample falls **immediately,** tap lightly on the shoulder of the ampoule.
6. Place the VACUette between the vertical tip guides on the inside of the dilutor snapper cup. Snap the ampoule tip. The ampoule will fill, leaving a bubble for mixing (fig. 4).
7. To mix the ampoule, invert it several times, allowing the bubble to travel from end to end.
8. Dry the ampoule. Test results should be obtained **between 30 seconds and 1 minute** after snapping the ampoule tip.

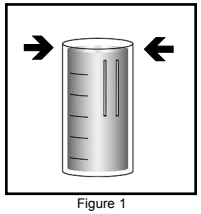
Figure 1

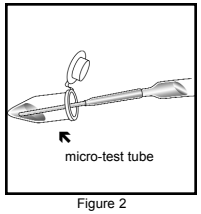

Figure 2

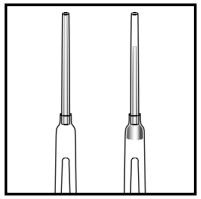
Figure 3

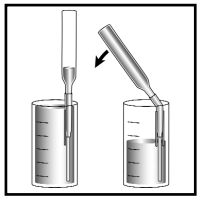
Figure 4

9. Obtain a test result using the appropriate comparator.
   a. **Low Range Comparator (fig. 5):** Place 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.
   b. **High Range Comparator (fig. 6):** Place the ampoule between the color standards until the best color match is found.


Figure 5

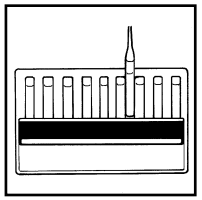
Figure 6

Test Method

The Hydrogen Peroxide VACUettes®[1] test kit employs the ferric thiocyanate chemistry.[2] In an acidic solution, hydrogen peroxide oxidizes ferrous iron. The resulting ferric iron reacts with ammonium thiocyanate to form ferric thiocyanate, a red-orange colored complex, in direct proportion to the hydrogen peroxide concentration. Various oxidizing agents such as peracetic acid, ferric ions and cupric ions will produce high test results.

Testing for peroxide in the presence of PAA requires a modified test procedure. Contact technical@chemetrics.com for more information.

1. VACUettes is a registered trademark of CHEMetrics, Inc. U.S. Patent Nos. 4,537,747 & 4,596,780
2. D. F. Boltz and J. A. Howell, eds., Colorimetric Determination of Nonmetals, 2nd ed., Vol. 8, p. 304 (1978)

Safety Information

Read SDS (available at www.chemetrics.com before performing this test procedure. Wear safety glasses and protective gloves.

Visit www.chemetrics.com to view product demonstration videos.
Always follow the test procedure above to perform a test.

CHEMetrics
Simplicity in Water Analysis

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