

## Peracetic Acid VACUettes® Kit

**K-7904D/R-7904D:** 0 - 30 & 0 - 150 ppm

**K-7904A/R-7904A:** 0 - 70 & 0 - 300 ppm

**K-7904B/R-7904B:** 0 - 130 & 0 - 600 ppm

**K-7904C/R-7904C:** 0 - 1200 & 0 - 6000 ppm

### Safety Information

Read SDS (available at [www.chemetrics.com](http://www.chemetrics.com)) before performing this test procedure. Wear safety glasses and protective gloves.

### Test Procedure

1. Add 5 drops of A-7900 Activator Solution to the empty dilutor snapper cup (fig. 1).
2. Fill the dilutor snapper cup to the -ml- mark with **distilled water** (fig. 2).
3. Fill the micro-test tube approximately halfway with the sample to be tested (fig. 3).
4. Make sure that the VACUette tip is firmly attached to the ampoule tip.
5. Holding the VACUette almost horizontally, touch the tip to the contents of the micro-test tube (fig. 3).  
**NOTE:** The capillary tip will fill completely with sample.
6. **Required for R-7904D 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. 4).  
**NOTE:** If none of the sample falls **immediately**, tap lightly on the shoulder of the ampoule.
7. 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. 5).

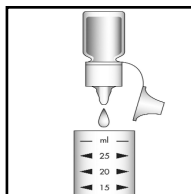


Figure 1

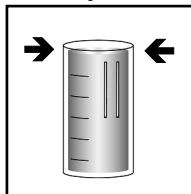


Figure 2

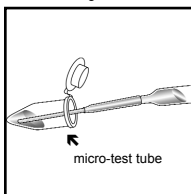


Figure 3

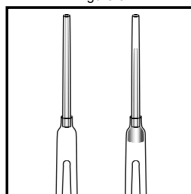


Figure 4

8. To mix the ampoule, invert it several times, allowing the bubble to travel from end to end.
9. Dry the ampoule and **wait 1 minute** for color development.
10. Obtain a test result using the appropriate comparator.

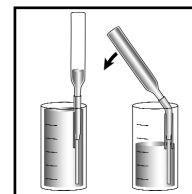


Figure 5

- a. **Low Range Comparator (fig. 6):** 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. 7):** Place the ampoule between the color standards until the best color match is found.

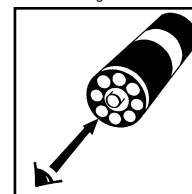


Figure 6

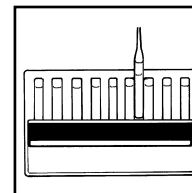


Figure 7

### Test Method

The Peracetic Acid VACUettes®<sup>1</sup> test kit employs the DPD chemistry.<sup>2,3</sup> The sample is treated with an excess of potassium iodide. Peracetic acid 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 peracetic acid concentration.

Various oxidizing agents such as halogens, ferric ions and cupric ions will produce high test results. Hydrogen peroxide does **not** interfere with this test if present at levels comparable to the peracetic acid levels.

1. VACUettes is a registered trademark of CHEMetrics, Inc. U.S. Patent No. 4,537,747 & 4,596,780
2. APHA Standard Methods, 22nd ed., Method 4500-Cl G - 2000
3. EPA Methods for Chemical Analysis of Water and Wastes, Method 330.5 (1983)

Visit [www.chemetrics.com](http://www.chemetrics.com) to view product demonstration videos.  
Always follow the test procedure above to perform a test.