Phenols VACUettes® Kit

K-8012D/R-8012D: 0 - 30 & 0 - 350 ppm

Safety Information

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

Test Procedure

1. Fill the dilutor snapper cup to the -ml- mark with **distilled water** (fig. 1).
2. Dissolve the crystals on the tip of the ampoule by stirring for **10 seconds** with the ampoule tip (fig. 2).
   NOTE: Some of the orange crystals may still be on the tip coating. Gently use a tissue to remove the remaining tip coating.
3. Fill the micro-test tube approximately halfway with the sample to be tested (fig. 3).
4. Place a VACUette tip firmly onto 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. 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).

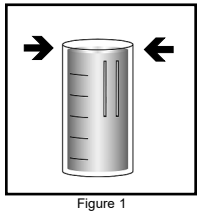

Figure 1

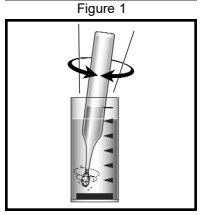

Figure 2

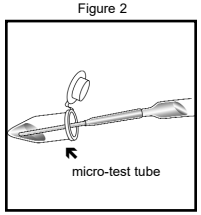

Figure 3

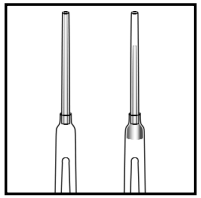

Figure 4

8. To mix the ampoule, invert it several times, allowing the bubble to travel from end to end.
9. Dry the ampoule. Obtain a test result **1 minute** after snapping the tip.
10. Obtain a test result using the appropriate comparator.
    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.

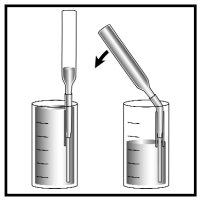

Figure 5

Figure 6

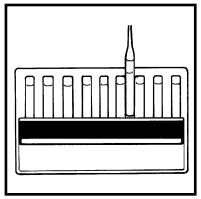

Figure 7

Test Method

The Phenols VACUettes®[1] test kit employs the 4-aminoantipyrine chemistry.[2,3,4] Test results are expressed in ppm (mg/Liter) "equivalent phenol" as C_6H_5OH. Most parasubstituted phenols do not produce a color with this reagent. Ferrous iron causes a blue color which can be eliminated by adding several drops of 1% EDTA to the sample prior to anaylsis. Sulfide, in excess of 100 ppm, causes a yellow turbidity. Highly contaminated waste waters may require distillation to separate phenols from nonvolatile impurities.

1. VACUettes is a registered trademark of AquaPhoenix Scientific, LLC U.S. Patent Nos. 4,537,747 & 4,596,780
2. APHA Standard Methods, 14th ed., Method 510 C (1975)
3. ASTM D 1783 - 01, Phenolic Compounds in Water, Test Method B
4. EPA Methods for Chemical Analysis of Water and Wastes, method 420.1 (1983)