Peracetic Acid Vacu-vials® Kit

K-7903: 0.40 - 4.00 ppm

Instrument Set-up

For CHEMetrics photometers, follow the instrument specific **Setup and Measurement Procedures** in the Operator's manual. For spectrophotometers capable of accepting a 13 mm diameter round cell, follow the manufacturer's specifications to set the wavelength to 565 nm and to use the ZERO ampoule supplied with this test kit to zero the instrument.

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 A-7900 Activator Solution (fig 2). Stir to mix the contents of the cup. Wait **1 minute**.
3. Place the Vacu-vial 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 3).
4. Mix the contents of the ampoule by inverting it several times, allowing the bubble to travel from end to end. Dry the ampoule and wait **1 minute** for color development.
5. Read the Vacu-vial ampoule in your photometer. If applicable, use the calibration table to obtain test results in ppm (mg/Liter) peracetic acid. Accuracy may be compromised if test results are outside the stated test range.

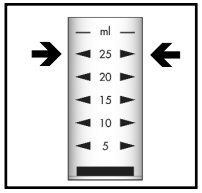

Figure 1

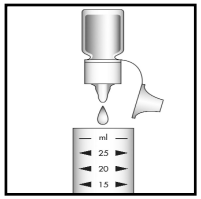

Figure 2

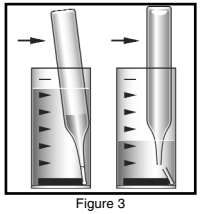
Figure 3

Test Method

The Peracetic Acid Vacu-vials®[1] test kit employs the DDPD chemistry.[2] The sample is treated with an excess of potassium iodide. Peracetic acid oxidizes the iodide to iodine. The iodine then oxidizes DDPD, a methyl-substituted form of DPD (N,N-diethyl-p-phenylenediamine), to form a purple colored species in direct proportion to the peracetic acid concentration. Results are expressed in ppm (mg/Liter) peracetic acid.

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. Vacu-vials is a registered trademark of CHEMetrics, Inc. U.S. Patent No. 3,634,038
2. The DDPD methodology was developed by CHEMetrics, Inc.

Safety Information

Read MSDS before performing this test procedure. Wear safety glasses and disposable gloves.

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