

# Hydrogen Peroxide HR CHEMets® Kit

**K-5520C/R-5510/A-0171:**  
1000 - 10,000 ppm

## Test Procedure

1. Place a pipette tip firmly onto the end of the MiniPet®<sup>3</sup> (fig. 1).

**NOTE:** Use a fresh pipette tip for each test.

2. Depress the plunger on the minipet.
3. Immerse the tip in the sample to be tested and release the plunger. A portion of the sample will be drawn into the tip (fig. 2).

**NOTE:** Do not touch the side or bottom of the sample container with the tip during sampling.

4. Hold the minipet over the sample cup, and depress the plunger to dispense sample (fig. 3).
5. Dilute the contents of the sample cup to the **25 ml mark with distilled water** (fig. 4).
6. Place the CHEMet ampoule, tip first, into the sample cup. Snap the tip. The ampoule will fill leaving a bubble for mixing (fig. 5).
7. To mix the ampoule, invert it several times, allowing the bubble to travel from end to end.

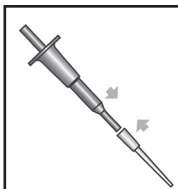


Figure 1

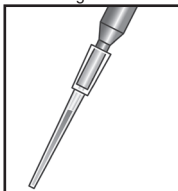


Figure 2

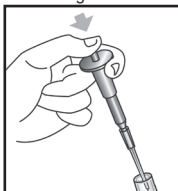


Figure 3

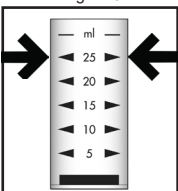


Figure 4

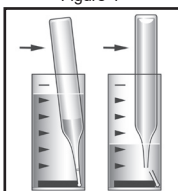


Figure 5

8. Dry the ampoule. Obtain a test result between **30 seconds and 1 minute** after snapping the tip.

9. Obtain a test result by placing the ampoule between the color standards until the best color match is found (fig. 6).

**NOTE:** Use the 1000 - 10,000 ppm concentration scale on the comparator label.

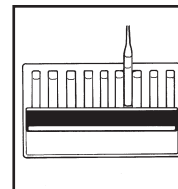


Figure 6

## Test Method

The Hydrogen Peroxide CHEMets®<sup>1</sup> test method employs the ferric thiocyanate chemistry.<sup>2</sup> 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.

Ferric iron and peracetic acid (PAA) will produce high test results. Cupric copper also interferes with the test. Testing for peroxide in the presence of PAA or cupric copper requires a modified test procedure. See technical bulletin on the website for details.

1. CHEMets is a registered trademark of AquaPhoenix Scientific, LLC U.S. Patent No. 3,634,038
2. APHA Standard Methods, Method 4500-H<sub>2</sub>O<sub>2</sub>-B-2020
3. Minipet is a registered trademark of Tricontinent Scientific, Inc.

## Safety Information

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

