# Chromate CHEMets® Kit

**K-2810/R-2810:** 0 - 1 & 1 - 10 ppm

## Safety Information

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

## Test Procedure

1. Fill the sample cup to the 20 mL mark with the sample to be tested (fig. 1).
2. Add 4 drops of S-2800 Acidifier Solution (fig. 2). Stir to mix the contents of the cup.
3. Place the CHEMet ampoule, tip first, into the sample cup. Snap the tip. The ampoule will fill leaving a bubble for mixing (fig. 3).
4. To mix the ampoule, invert it several times, allowing the bubble to travel from end to end.
5. Dry the ampoule. Obtain a test result **2 minutes** after snapping the tip.
6. Obtain a test result using the appropriate comparator.
   a. **Low Range Comparator (fig. 4):** 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.

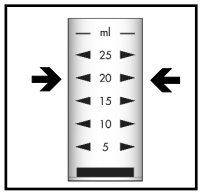

Figure 1

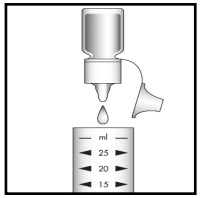

Figure 2

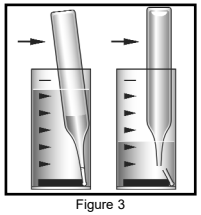
Figure 3


Figure 4

   b. **High Range Comparator (fig. 5):** Place the ampoule between the color standards until the best color match is found.

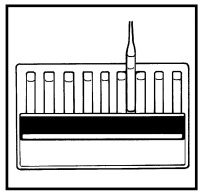
Figure 5

## Test Method

The Chromate CHEMets®[1] test method employs the diphenylcarbazide chemistry.[2,3] In an acidic solution, hexavalent chromium reacts with diphenylcarbazide to form a red-violet colored complex in direct proportion to the hexavalent chromium concentration.

1. CHEMets is a registered trademark of AquaPhoenix Scientific, LLC U.S. Patent No. 3,634,038
2. APHA Standard Methods, 23rd ed., Method 3500-Cr B - 2009
3. ASTM D 1687 - 02, Chromium in Water, Test Method A

CHEMetrics®
By AquaPhoenix Scientific

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