

# Nitrite CHEMetrics® Kit

**K-7006/R-7006:** 0 - 0.1 & 0 - 1 ppm N

## Safety Information

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

## Test Procedure

1. Add 5 drops of S-7004 Acidifier Solution to the empty sample cup (fig. 1).
2. Fill the sample cup to the 25 mL mark with the sample to be tested (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 **8 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.

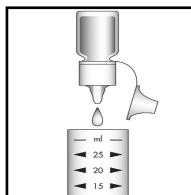


Figure 1

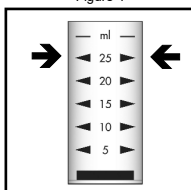


Figure 2

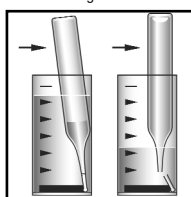


Figure 3

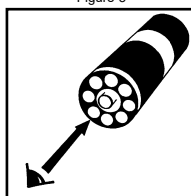


Figure 4

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

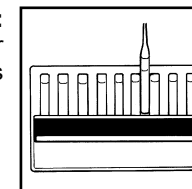


Figure 5

## Test Method

The Nitrite CHEMetrics®<sup>1</sup> test kit employs the azo dye method.<sup>2,3</sup> In an acidic solution, nitrite diazotizes with the primary aromatic amine N-(1-naphthyl)ethylenediamine dihydrochloride (NED) and then couples with sulfanilic acid to produce a highly colored azo dye. The resulting pink color is proportional to the nitrite concentration in the sample.

1. CHEMetrics is a registered trademark of AquaPhoenix Scientific, LLC U.S. Patent No. 3,634,038
2. APHA Standard Methods, 23<sup>rd</sup> ed., Method 4500-NO<sub>2</sub><sup>-</sup> B - 2000.
3. EPA Methods for Chemical Analysis of Water and Wastes, Method 354.1 (1983).



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