

Nitrite HR CHEMets® Kit

K-7020B/R-7002/A-0171:
0 - 250 ppm

Sample Temperature

Sample temperatures that deviate significantly from 20°C (68°F) may introduce test result bias.

Test Procedure

1. Place a pipette tip firmly onto the end of the MiniPet®⁴ (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 **20 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).

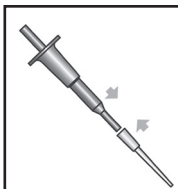


Figure 1

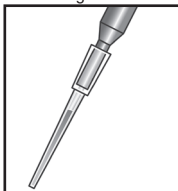


Figure 2

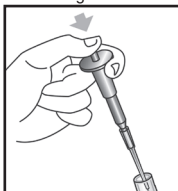


Figure 3

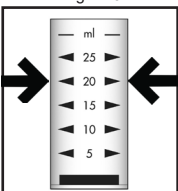


Figure 4

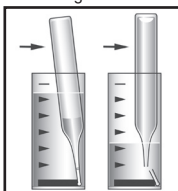


Figure 5

7. To mix the ampoule, invert it several times, allowing the bubble to travel from end to end.
8. Dry the ampoule. Obtain a test result **10 minutes** after snapping the tip.
9. Use the 0 - 250 ppm concentration scale of the comparator label. Obtain a test result by placing the ampoule between the color standards until the best color match is found (fig. 6).

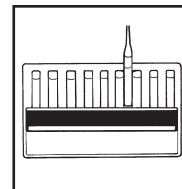


Figure 6

NOTE: To convert to ppm nitrite (NO₂), multiply test result by 3.3.

Test Method

The Nitrite CHEMets®¹ test kit employs the azo dye formation method.^{2,3} In an acidic solution, nitrite diazotizes with a primary aromatic amine and then couples with another organic molecule to produce a highly colored azo dye. The resulting pink-orange color is proportional to the nitrite concentration in the sample.

1. CHEMets is a registered trademark of AquaPhoenix Scientific, LLC U.S. Patent No. 3,634,038
2. APHA Standard Methods, 23rd ed., Method 4500-NO₂-B -2000
3. EPA Methods for Chemical Analysis of Water and Wastes, Method 354.1 (1983).
4. Minipet is a registered trademark of Tricontinent Scientific, Inc.

Safety Information

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

