Sulfite Titrets® Kit

K-9602: 2 - 20 ppm
K-9605: 5 - 50 ppm
K-9610: 10 - 100 ppm
K-9650: 50 - 500 ppm

Test Procedure

1. Fill the sample cup to the 20 mL mark with the sample to be tested (fig. 1).
2. Add 5 drops of A-9600 Neutralizer Solution to the sample (fig. 2). Stir to mix the contents of the cup. Wait **30 seconds**.
3. Snap the tip of the ampoule at the black snap ring (fig. 3).
   NOTE: When the tip is snapped, the flexible tubing will remain in place on the neck of the ampoule.
4. Lift the control bar and insert the Titret assembly into the Titrettor (fig. 4).
   NOTE: The rigid sample pipe will extend approximately 1.5 inches beyond the body of the Titrettor.
5. Hold the Titrettor with the sample pipe in the sample. Press the control bar firmly, but briefly, to pull in a small amount of sample (fig. 5). The contents will turn **BLUE to VERY DARK BLUE (black)**. Wait **30 seconds**.
   NOTE: NEVER press the control bar unless the sample pipe is in the sample.
6. Press the control bar again to draw another small amount of sample into the ampoule (fig. 5).

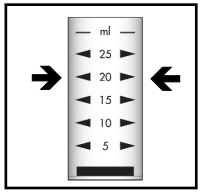

Figure 1

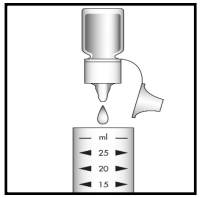

Figure 2

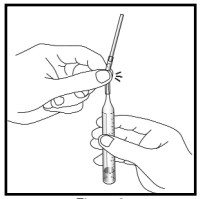
Figure 3

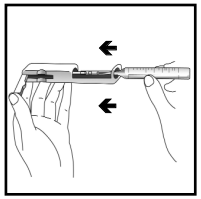
Figure 4

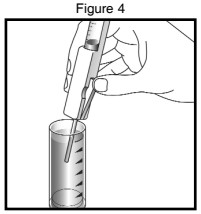
Figure 5

7. Rock the entire assembly to mix the contents of the ampoule. Watch for a color change from **BLUE to COLORLESS**.
8. Repeat steps 6 and 7 until a permanent color change occurs.
9. When the color of the liquid in the ampoule changes to **COLORLESS**, remove the ampoule from the Titrettor. Hold the ampoule, **tip pointed upward,** and read the scale opposite the liquid level (fig. 6). Results are expressed in ppm (mg/Liter) sulfite as SO_3.

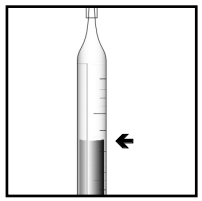
Figure 6

Interpretation of Test Results

If the contents of the ampoule do not turn **blue** in Step # 5, the sulfite concentration in the sample is above the test range. If the ampoule fills completely and the contents do not turn **colorless**, the sulfite concentration is below the test range.

Test Method

The Sulfite Titrets®[1] test kits employ the Iodometric chemistry. In an acidic solution, sulfite is titrated with an iodide-iodate titrant and a starch indicator[2,3,4].

1. Titrets is a registered trademark of CHEMetrics, Inc. U.S. Patent No. 4,332,769
2. ASTM D 1339-84, Sulfite Ion in Water, Test Method C
3. APHA Standard Methods, 21st ed., method 4500-SO_3^{2-}B (2005)
4. EPA Methods for Chemical Analysis of Water and Wastes, method 377.1 (1983)

Safety Information

Read MSDS (available at www.chemeterics.com) before performing this test. Wear safety glasses and protective gloves.

Visit www.chemetrics.com to view product demonstration videos.
Always follow the test procedure above to perform a test.

CHEMetrics
Water Analysis Systems

www.chemetrics.com
4295 Catlett Road, Midland, VA 22728 U.S.A.
Phone: (800) 356-3072; Fax: (540) 788-4856
E-Mail: orders@chemetrics.com

Dec. 12, Rev. 19