

Sulfide CHEMets® Kit

K-9510: 0 - 1 & 1 - 10 ppm

Test Procedure

1. Fill the sample cup to the 25 mL mark with the sample to be tested (fig 1).

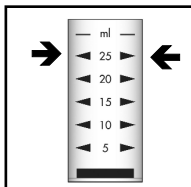


Figure 1

2. Add 3 drops of A-9500 Activator Solution (fig 2). Stir to mix the contents of the cup.

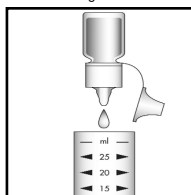


Figure 2

NOTE: Store the A-9500 Activator Solution in the glass bottle when not in use.

3. **Immediately** snap the tip by pressing the ampoule against the side of the cup. The ampoule will fill leaving a small bubble to facilitate mixing (fig 3).

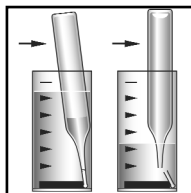


Figure 3

4. Mix the contents of the ampoule by inverting it several times, allowing the bubble to travel from end to end. Dry the ampoule and wait **5 minutes** for color development.

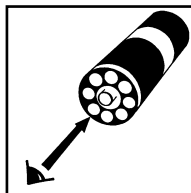


Figure 4

5. Use the appropriate comparator to determine the level of sulfide in the sample. If the color of the ampoule is between two color standards, a concentration estimate can be made.

a. **Low Range Comparator (fig. 4):**

Place the ampoule, flat end downward into the center tube of the comparator. Direct the top of the comparator up toward a source of light while viewing from the bottom. Rotate the comparator until the color standard below the ampoule shows the closest match.

b. **High Range Comparator (fig. 5):** Hold the comparator in a nearly horizontal position while standing directly beneath a source of light. Place the ampoule between the color standards moving it from left to right along the comparator until the best color match is found.

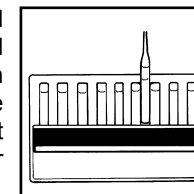


Figure 5

Test Method

The Sulfide CHEMets®¹ test kit employs the methylene blue chemistry.^{2,3} In an acidic solution, sulfide reacts with N,N-dimethyl-p-phenylenediamine and ferric chloride to produce methylene blue. The resulting blue color is directly proportional to the sulfide concentration. Results are expressed in ppm (mg/Liter) S.

Strong reducing agents, including high levels of sulfide, will cause low results. Sulfide is very volatile, especially when the sample is acidified. It is essential to analyze the sample as quickly as possible.

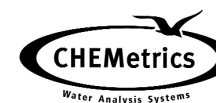
1. CHEMets is a registered trademark of CHEMetrics, Inc. U.S. Patent No. 3,634,038

2. APHA Standard Methods, 20th ed., p. 4-165, method 4500-S²⁻ D (1998)

3. EPA Methods for Chemical Analysis of Water and Wastes, method 376.2 (1983)

Safety Information

Read MSDS before performing this test. Wear safety glasses and disposable gloves.



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