

Sulfide 1

Range(s): 0-1.00 ppm S²⁻

Procedure

Note: When testing multiple samples simultaneously, a separate sample cell with an unreacted sample of the water tested must be used to zero the colorimeter. Please note that varying the test procedure from the original can affect the precision of the test.

1. Turn on the Colorimeter.
2. Select a test menu (ALL TESTS, RECENT TESTS, or FAVORITES) containing Sulfide 1 using ◀▶.
3. Select Sulfide 1 using ▲▼; then press ENTER ⊙.
4. Rinse and fill 25 mm sample cell to 10 mL mark with sample; then cap.
5. Insert sample cell into sample cell compartment. Align marks per User's Manual.
6. Select ZERO using ◀▶; then press ENTER ⊙. Zero will be displayed.
7. Remove sample cell from sample cell compartment; then remove cap.
8. Add 0.5 mL Sulfide 1 - Reagent A. DO NOT MIX.
9. Add 3 drops Sulfide 1 - Reagent B; then cap and swirl to mix thoroughly.
10. Select TIMER using ◀▶; then press ENTER ⊙.
11. Select START using ◀▶; then press ENTER ⊙. (A 1-minute [01:00] countdown will begin.)
12. When the timer beeps, remove cap and add 1.0 mL Sulfide 1 - Reagent C; then cap and swirl to mix thoroughly.
13. Insert sample cell into sample cell compartment. Align marks.
14. Select EXIT using ◀▶; then press ENTER ⊙.
15. Select READ using ◀▶; then press ENTER ⊙. The instrument will read the sample and the result will be displayed.

Interferences

Strong Oxidizers – positive interference

Strong Reducing Agents – negative interference

Nitrite – negative interference

The following analytes were tested to the levels listed and found not to cause any interference up to the specified values:

Alkalinity, Total (CaCO₃) – 1000 ppm

Azole (BT) – 5 ppm

Azole (TT) – 5 ppm

Bromine – 5 ppm

Chloride – 1000 ppm

Chlorine – 5 ppm

Copper – 5 ppm

Fluoride – 10 ppm

Hardness, Calcium (CaCO₃) – 1000 ppm

Iron, Ferric – 10 ppm

Iron, Ferrous – 10 ppm

Molybdate – 10 ppm

Nitrate – 2000 ppm

Nitrite – 2000 ppm

Phosphate – 100 ppm

Phosphonate – 20 ppm

Polymer – 1000 ppm

Polyphosphate – 5 ppm

Silica – 150 ppm

Sulfate – 1000 ppm

Sulfite – 100 ppm

Zinc – 5 ppm

Test Method

Methylene Blue

A ferric chloride-catalyzed reaction between sulfide and DPD produces a methylene blue-colored complex that is proportional to the concentration of sulfide in a sample.

**Estimated
Detection Limit**

0.01 ppm S²⁻

Precision

Using a single lot of reagent and a standard solution of 0.5 ppm S²⁻, an individual analyst obtained a standard deviation with the instrument of ± 0.01 ppm S²⁻.

Application

Industrial Water

Ordering Info**Reagent Pack**

K-8025 Sulfide 1

Formulated for exclusive use with Taylor's TTI® Colorimeter.

Reagent Pack Components

R-8025A Sulfide 1 - Reagent A

R-8025B Sulfide 1 - Reagent B

R-8025C Sulfide 1 - Reagent C



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