Colorimeter Series

Bromine T DPD/P 10 or 20

Range(s): $0-10.00 \text{ ppm Br}_2$, $0-20.0 \text{ ppm Br}_2$



Procedure

- 1. Turn on the Colorimeter.
- Select a test menu (ALL TESTS, RECENT TESTS, or FAVORITES) containing Bromine T DPD/P 10 (for 0-10 ppm Br₂) or Bromine T DPD/P 20 (for 0-20 ppm Br₂) using ◀▶.
- Select Bromine T DPD/P 10 (for 0-10 ppm Br₂) or Bromine T DPD/P 20 (for 0-20 ppm Br₂) using ▲▼; then press ENTER ●.
- 4. Rinse and fill 25 mm sample cell to 10 mL mark with sample; then cap.
- Insert sample cell into sample cell compartment. Align marks per User's Manual.
- Select ZERO using ◀▶; then press ENTER ◎. Zero will be displayed.

- 7. Remove sample cell from sample cell compartment; then remove cap.
- 8. Using the 0.15 g dipper spoon, add 1 level dipper Bromine T DPD/P Reagent A; then swirl to dissolve powder.
- 9. Add 5 drops Bromine T DPD/P Reagent B; then cap and swirl to mix thoroughly.
- Insert sample cell into sample cell compartment. Align marks.
- Select READ using ◀▶; then press ENTER ②. The instrument will read the sample and the result will be displayed.

Note: When testing wastewater, a 2-minute wait time is recommended for full color development. To include a 2-minute wait time, omit step 11 above and continue with the following steps:

- 11. Select TIMER using **♦**; then press ENTER **⑤**.
- 12. Select START using ◀▶; then press ENTER ♠. (A 2-minute [02:00] countdown will begin.)
 Immediately select AUTO using ◀▶; then press ENTER ♠.
- 13. When the timer beeps, the instrument will read the sample and the result will be displayed.

Interferences

Alkalinity, Total (CaCO₃) > 200 ppm – negative interference To remove interference: Fill dilution vial to 50 mL mark and adjust pH to 6-7 with Sulfuric Acid N (R-0686). Take a 10 mL portion and follow test procedure above.

Chloramines, all levels – positive interference
Chlorine, all levels – positive interference
Chlorine Dioxide, all levels – positive interference
Hardness, Calcium (CaCO₃) > 1000 ppm – negative interference
Iodine, all levels – positive interference
Manganese, all levels – positive interference
Monopersulfate, all levels – positive interference
Ozone, all levels – positive interference

Peroxides, all levels – positive interference possible

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

Azole (BT) – 5 ppm Azole (TT) – 5 ppm Biguanide (as product) – 50 ppm Chloride – 1000 ppm Copper – 5 ppm Cyanuric Acid – 200 ppm Fluoride – 10 ppm Hydrogen Peroxide – 30 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

(over)

Instruction #5108

Test Method

DPD (N,N-diethyl-p-phenylenediamine)

In the presence of potassium iodide, DPD reacts with bromine and bromamines to produce a magenta-colored complex with an intensity that is proportional to the concentration of total bromine in a sample.

Estimated Detection Limit

 $0.03~\rm ppm~Br_2$

Precision

Using two lots of reagent and a standard solution of 4.38 ppm Br_2 , an individual analyst obtained a standard deviation with the instrument of \pm 0.2 ppm Br_2 .

Application

Industrial Water and Recreational Water

Ordering Info

Reagent Pack

K-8002 Bromine T DPD/P 10 or 20

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

Reagent Pack Components

R-8002A Bromine T DPD/P - Reagent A

R-8002B Bromine T DPD/P - Reagent B

Optional Reagents & Accessories

R-0686 Sulfuric Acid N

