

# Bromine T DPD/P 10 or 20

Range(s): 0-10.00 ppm Br<sub>2</sub>, 0-20.0 ppm Br<sub>2</sub>



## 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 Bromine T DPD/P 10 (for 0-10 ppm Br<sub>2</sub>) or Bromine T DPD/P 20 (for 0-20 ppm Br<sub>2</sub>) using ◀▶.
3. Select Bromine T DPD/P 10 (for 0-10 ppm Br<sub>2</sub>) or Bromine T DPD/P 20 (for 0-20 ppm Br<sub>2</sub>) 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. 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.
10. Insert sample cell into sample cell compartment. Align marks.
11. Select READ using ◀▶; then press ENTER Ⓞ. 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 Ⓞ.
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 (CaCO<sub>3</sub>) > 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 (CaCO<sub>3</sub>) > 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

## Instruction #5108

### Interferences (continued)

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  
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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

### 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 ppm Br<sub>2</sub>

### Precision

Using two lots of reagent and a standard solution of 4.38 ppm Br<sub>2</sub>, an individual analyst obtained a standard deviation with the instrument of ± 0.2 ppm Br<sub>2</sub>.

### 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



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