

Biguanide 70

Range(s): 0-70 ppm PHMB (Polyhexamethylene Biguanide)



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 Biguanide 70 using ◀▶.
3. Select Biguanide 70 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 1 mL Biguanide 70 - Reagent A; then swirl to mix.
9. Add 1 mL Biguanide 70 - Reagent B; then cap and swirl to mix thoroughly.
10. Insert sample cell into sample cell compartment. Align marks.
11. Select TIMER using ◀▶; then press ENTER ⊙.
12. Select START using ◀▶; then press ENTER ⊙. (A 1-minute [1:00] 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

Bromine, all levels – may cause interference
 Chlorine, all levels – may cause interference
 Iron, Ferric > 4 ppm – negative interference
 Quats > 4 ppm – positive 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) – 300 ppm
 Chloride – 2000 ppm
 Copper – 4 ppm
 EDTA – 40 ppm
 Fluoride – 20 ppm
 Iron, Ferrous – 5 ppm

Magnesium – 1000 ppm
 Manganese – 3 ppm
 Oxidizer – 100 ppm
 Phosphate – 50 ppm
 Phosphonate (HEDP) – 20 ppm
 Polyquat – 12.5 ppm

Test Method

Buffered pH Indicator

At an acidic pH, bromophenol blue reacts with polyhexamethylene biguanide (PHMB) to form a blue complex that is proportional to the concentration of PHMB in a sample. Calibration for this method is based on commercially available products which contain 20% active biocide. The reagents are formulated to minimize interference from quats and polyquats.

**Estimated
Detection Limit**

3 ppm PHMB

Precision

Using two lots of reagent and a standard solution of 50 ppm PHMB, an individual analyst obtained a standard deviation of ± 1 ppm PHMB.

Application

Recreational Water

Ordering Info

Reagent Pack

K-8040 Biguanide 70

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

Reagent Pack Components

R-8040A Biguanide 70 - Reagent A

R-8040B Biguanide 70 - Reagent B



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