# Colorimeter Series

# pH 9.5-11.5 Range(s): 9.5-11.5



#### Procedure

Note: Metal ions such as iron, copper, and calcium may interfere by forming turbidity at high pH levels. If the source water is turbid, filtration is recommended.

Note: Low conductivity water may cause inaccurate results.

- 1. Turn on the Colorimeter.
- Select a test menu (ALL TESTS, RECENT TESTS, or FAVORITES) containing pH 9.5-11.5 using ◀▶.
- 3. Select pH 9.5-11.5 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 **②**. Zero will be displayed.
- 7. Remove sample cell from sample cell compartment: then remove cap.

- 8. Add 0.5 mL pH 9.5-11.5 Reagent A: then cap and swirl to mix thoroughly.
- 9. Insert sample cell into sample cell compartment. Align marks.
- 10. Select READ using **♦**; then press ENTER **⑤**. The instrument will read the sample and the result will be displayed.

### Interferences

Bromine > 10 ppm – positive interference

To remove interference: Add 1 drop of Thiosulfate N/10 (R-0697) to the sample cell prior to testing.

Chlorine > 5 ppm – positive interference

To remove interference: Add 1 drop of Thiosulfate N/10 (R-0697) to the sample cell prior to testing.

Turbidity, all levels – positive interference

To remove interference: Filter the sample prior to testing.

The following analytes were tested to the levels listed and found not to cause any interference up to the specified values: Azole (BT) - 10 ppm

Azole (TT) - 10 ppm

Alkalinity, Total (CaCO<sub>3</sub>) – 1000 ppm

Chloride – 1000 ppm

Copper – 5 ppm\*

Fluoride – 10 ppm

Hardness, Calcium (CaCO<sub>3</sub>) - 1000 ppm\*

Iron, Ferric - 10 ppm\*

Iron, Ferrous – 10 ppm\*

Molybdate – 50 ppm

Nitrate – 2000 ppm

Nitrite – 2000 ppm

Phosphonate – 20 ppm

Phosphate – 20 ppm

Polyphosphate - 5 ppm

Silica – 150 ppm

Sulfate - 1000 ppm

Zinc - 5 ppm

\*Note: Sample turbidity was removed by filtration prior to testing.

#### Instruction #5007

## Test Method M

Mordant Orange

Mordant Orange has a working pH range of approximately 9.5 - 11.5. Mordant Orange is yellow at pH 9.5 and orange-red at pH 11.5.

# **Estimated Detection Limit**

Not Applicable

#### **Precision**

Using a single lot of reagent and a standard solution of pH 10.0, an individual analyst obtained a standard deviation with the instrument of ± 0.2 pH units.

# **Application**

Industrial Water

# **Ordering Info**

#### Reagent Pack

K-8047 pH 9.5-11.5

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

#### **Reagent Pack Components**

R-8047A pH 9.5-11.5 - Reagent A

#### **Optional Reagents & Accessories**

R-0833 DI Water

R-0697 Thiosulfate N/10

Filtration equipment:

6260 Syringe, 30 mL

6251-10 Filter, syringe 0.45 μM, 13mm, 10-pack

