

#### **COMPONENTS:**

- 1 x 4078 Pipet, Graduated (3 mL w/ 0.5 mL div), plastic
- 1 x 5006 Instruction
- 2 x 91980 Sample Tube, Graduated (25 mL) w/ cap & orange dot, plastic
- 1 x R-0630-C Chromate Indicator, 2 oz, DB
- 1 x R-0706-C Silver Nitrate Reagent, 2 oz, DB

#### TO ORDER REPLACEMENT PARTS AND REAGENTS CALL TOLL-FREE 800-TEST KIT (800-837-8548).

#### **PROCEDURE:**

### CAREFULLY READ AND FOLLOW PRECAUTIONS ON REAGENT LABELS. KEEP REAGENTS AWAY FROM CHILDREN.

NOTE: When dispensing reagents from dropper bottles, **always** hold bottle in a vertical position.

## **Chloride Test**

NOTE: When sulfite content of sample water to be tested exceeds 10 ppm, the sulfite should be oxidized to prevent interference in test. A 25 mL sample is first adjusted to the appropriate pH, then 1 mL (or 25 drops) of R-0649 Hydrogen Peroxide Solution (sold separately) is added and thoroughly mixed. Continue with the rest of the procedure.

# For 1 drop = 10 or 25 ppm or 1 gpg Chloride

## 1. Select sample size.

NOTE: For 1 drop = 10 ppm, use 25 mL sample. For 1 drop = 25 ppm, use 10 mL sample. For 1 drop = 1 gpg, use 14.6 mL sample.

- 2. Rinse and fill sample tube (#9198O) to desired mark with water to be tested.
- 3. Add 5 drops R-0630 Chromate Indicator. Swirl to mix. Sample will turn yellow (Fig. 1).
- 4. Add R-0706 Silver Nitrate Reagent dropwise, swirling and counting after each drop, until color changes from yellow to a milky salmon (brick red) (Fig. 2).
- NOTE: A white precipitate will form as R-0706 Silver Nitrate Reagent is added to the sample. Do not add enough R-0706 Silver Nitrate Reagent to give a brown color. First change from yellow to a milky salmon (brick red) is the endpoint.
- 5. Multiply drops of R-0706 Silver Nitrate Reagent by desired equivalence factor. Record as parts per million (ppm) or grains per gallon (gpg) chloride (Cl<sup>-</sup>).
- NOTE: For results as sodium chloride, multiply chloride concentration (Step 5) by 1.65.

## For 1 drop = 50, 100, or 500 ppm Chloride

- 1. Select sample size.
- NOTE: For 1 drop = 50 ppm, use 5 mL (2 x 2.5 mL) sample. For 1 drop = 100 ppm, use 2.5 mL sample. For 1 drop = 500 ppm, use 0.5 mL sample.
- 2. Using 3 mL pipet (#4078), add desired sample size to 25 mL sample tube (#91980). Dilute to 10 mL mark with distilled, deionized, or chloride-free water.
- 3. Add 5 drops R-0630 Chromate Indicator. Swirl to mix. Sample will turn yellow (Fig. 1).





4. Add R-0706 Silver Nitrate Reagent dropwise, swirling and counting after each drop, until color changes from yellow to a milky salmon (brick red) (Fig. 2).

DROP TEST CHLORIDE (1 drop = 10, 25, 50, 100, or 500 ppm)

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- NOTE: A white precipitate will form as R-0706 Silver Nitrate Reagent is added to the sample. Do not add enough R-0706 Silver Nitrate Reagent to give a brown color. First change from yellow to a milky salmon (brick red) is the endpoint.
- Multiply drops of R-0706 Silver Nitrate Reagent by desired equivalence factor. Record as parts per million (ppm) chloride (Cl<sup>−</sup>).
- NOTE: For results as sodium chloride (NaCl), multiply chloride (Cl<sup>-</sup>) concentration (Step 5) by 1.65.

drop, until color changes from yellow to a milky salmon (brick red) (Fig. 2). DTE: A white precipitate will form as R-0706 Silver Nitrate Reagent is added to



Fig. 2

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