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

Instr. #5090

COMPONENTS:

1 x 5090	Instruction
1 x 6045	Syringe, 3 mL
1 x 9198O	Sample Tube, Graduated (25 mL) w/ cap & orange dot, plastic
1 x R-0630-C	Chromate Indicator, 2 oz, DB
1 x R-0638O-C	Phenolphthalein Indicator, 2 oz w/ orange cap, DB
1 x R-0686O-C	Sulfuric Acid N, 2 oz w/ orange cap, 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 2 drops R-0638O Phenolphthalein Indicator. Swirl to mix. If sample is colorless, proceed to Step 4. If sample is pink (Fig. 1), add R-0686O Sulfuric Acid N dropwise, swirling after each drop, until color changes from pink to colorless.

4. Add 5 drops R-0630 Chromate Indicator. Swirl to mix. Sample will turn yellow (Fig. 2).

5. 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. 3).

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.

6. 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^-).

(OVER)


Fig. 1


Fig. 2


Fig. 3

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

Instr. #5090

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 syringe (#6045), add desired sample size to 25 mL sample tube (#9198O). Dilute to 10 mL mark with distilled, deionized, or chloride-free water.

3. Add 2 drops R-0638O Phenolphthalein Indicator. Swirl to mix. If sample is colorless, proceed to Step 4. If sample is pink (Fig. 1), add R-0686O Sulfuric Acid N dropwise, swirling after each drop, until color changes from pink to colorless.

4. Add 5 drops R-0630 Chromate Indicator. Swirl to mix. Sample will turn yellow (Fig. 2).

5. 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. 3).

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.

6. Multiply drops of R-0706 Silver Nitrate Reagent by desired equivalence factor. Record as parts per million (ppm) chloride (Cl^-).

NOTE: For results as sodium chloride (NaCl), multiply chloride (Cl^-) concentration (Step 6) by 1.65.

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