DROP TEST
CHLORINE BLEACH (1 drop = 10 or 100 ppm/0.05% or 0.5%)

Instr. #5000

COMPONENTS:

1 x 4026	**Dipper Spoon, 2 g, plastic, white**
1 x 5000	**Instruction**
1 x 6045	**Syringe, 3 mL**
1 x 9009	**Pipet, Calibrated (0.5 & 1.0 mL) w/ yellow cap, plastic**
1 x 9198Y	**Sample Tube, Graduated (25 mL) w/ cap and yellow dot, plastic**
1 x R-0636-C	**Starch Indicator Solution, 2 oz, DB**
1 x R-0664-C	**Bleach Reagent #1, 2 oz**
1 x R-0665S-II	**Bleach Reagent #2 (crystals), 50 g**
1 x R-0666-C	**Bleach Reagent #3, 2 oz, DB**
1 x R-0700-C	**Thiosulfate 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.

Chlorine Bleach Test

For Bleach Solutions (10-1000 ppm)

1. Select sample size.

NOTE: For 1 drop = 10 ppm, use 25 mL sample.
For 1 drop = 100 ppm, use 2.5 mL sample.

2. Using 3 mL syringe (#6045) or 25 mL sample tube (#9198Y), add desired sample size (Step 1) to 25 mL sample tube (#9198Y). Dilute 2.5 mL sample to 10 mL mark with distilled, deionized, or tap water.

3. Using 1.0 mL pipet (#9009), add 1 pipetful (as much as can be drawn up with the bulb) R-0664 Bleach Reagent #1. Swirl to mix.

4. Using 2 g dipper spoon (#4026), add 1 level dipper R-0665S Bleach Reagent #2. Swirl until dissolved. Sample will turn deep yellow (Fig. 1) or brown (Fig. 2) if chlorine is present.

5. Add R-0700 Thiosulfate Reagent dropwise, swirling and counting after each drop, until color changes from deep yellow or brown to pale yellow (Fig. 3).

6. Add 10 drops R-0636 Starch Indicator Solution. Swirl to mix. Sample will turn blue (Fig. 4).

7. Continue adding R-0700 Thiosulfate Reagent dropwise, swirling and counting after each drop, until color changes from blue to colorless.

8. Multiply total drops of R-0700 Thiosulfate Reagent (Steps 5 & 7) by desired equivalence factor (Step 1). Record as parts per million (ppm) available chlorine (Cl_2).

(OVER)

Fig. 1

Fig. 2

Fig. 3

DROP TEST
CHLORINE BLEACH (1 drop = 10 or 100 ppm/0.05% or 0.5%)

For Bleach Solutions (0.1%-15%)

1. Select sample size.

NOTE: For 1 drop = 0.05%, use 5 mL sample.
For 1 drop = 0.5%, use 0.5 mL sample.

2. Using 3 mL syringe (#6045), add desired sample size (Step 1) to 25 mL sample tube (#9198Y). Dilute to 10 mL mark with distilled, deionized, or tap water.

3. Using 1.0 mL pipet (#9009), add 1 pipetful (as much as can be drawn up with the bulb) R-0664 Bleach Reagent #1. Swirl to mix.

4. Using 2 g dipper spoon (#4026), add 1 level dipper R-0665S Bleach Reagent #2. Swirl until dissolved. Sample will turn deep yellow (Fig. 1) or brown (Fig. 2) if chlorine is present.

5. Add R-0666 Bleach Reagent #3 dropwise, swirling and counting after each drop, until color changes from deep yellow or brown to colorless.

6. Multiply total drops of R-0666 Bleach Reagent #3 (Step 5) by desired equivalence factor (Step 1). Record as percent (%) available chlorine (Cl_2).

NOTE: Chlorine concentration is determined as grams per 100 mL (g/100 mL). For less concentrated solutions (less than 5%), this is approximately equal to percent (%). For concentrated solutions (equal to or greater than 5%), divide answer in Step 6 by the specific gravity. Record as actual percent available chlorine (Cl_2).

For example: If 15% available chlorine is calculated in Step 6 and the specific gravity is 1.3, actual percent available chlorine is 11.5% by weight.

Fig. 4

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