

# DROP TEST

## FREE & COMBINED CHLORINE (1 drop = 0.2 or 0.5 ppm)

Instr. #5016

### COMPONENTS:

- 1 x 4044 Dipper Spoon, 0.15 g, plastic, white
- 1 x 5016 Instruction
- 1 x 9198 Sample Tube, Graduated (25 mL) w/ cap, plastic
- 1 x R-0765-II Potassium Iodide Crystals, 50 g
- 1 x R-0870-I DPD Powder, 10 g
- 1 x R-0871-C FAS-DPD Titrating Reagent (Chlorine), 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.

### Free & Combined Chlorine Tests

1. Rinse and fill 25 mL sample tube (#9198) to desired mark with water to be tested.

NOTE: For 1 drop = 0.2 ppm, use 25 mL sample.  
For 1 drop = 0.5 ppm, use 10 mL sample.

2. Add 2 dippers R-0870 DPD Powder. Swirl until dissolved. Sample will turn pink (Fig. 1) if free chlorine is present.

NOTE: If pink color disappears, add R-0870 DPD Powder until color turns pink.

3. Add R-0871 FAS-DPD Titrating Reagent (Chlorine) dropwise, swirling and counting after each drop, until color changes from pink to colorless.

4. Multiply drops in Step 3 by equivalence (Step 1). Record as parts per million (ppm) free chlorine ( $\text{Cl}_2$ ).
5. Using 0.15 g dipper spoon (#4044), add 1 heaping dipper R-0765 Potassium Iodide Crystals. Swirl until dissolved. Sample will turn pink (Fig. 1) if combined chlorine is present.
6. Add R-0871 FAS-DPD Titrating Reagent (Chlorine) dropwise, swirling and counting after each drop, until color changes from pink to colorless.
7. Multiply drops in Step 6 by drop equivalence (Step 1). Record as parts per million (ppm) combined chlorine ( $\text{Cl}_2$ ).



**Fig. 1**



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