#5136

Guidebook (#2004B) amplifies these instructions and should be read to use this product properly.

TIPS

1. Keep test kit out of reach of children.
2. Read precautions on all labels.
3. Store test kit in cool, dark place.
4. Replace reagents once each year.
5. Do not dispose of solution in pool or spa.
6. Rinse tubes before and after each test.
7. Obtain samples 18" (45 cm) below water surface.
8. Hold dropper bottle vertically when dispensing reagent.
9. Match colors in sunlight while facing north.

This test kit may not contain all tests shown.

taylor
092622

Free, Combined & Total Chlorine (DPD)

1. Fill small tube to 9 mL mark with sample water.
2. Add 5 drops R-0001 and 5 drops R-0002. Cap and invert to mix.
3. Match color.* Record as ppm free chlorine (Cl_2).
4. Add 5 drops R-0003. Cap and invert to mix.
5. Match color immediately. Record as ppm total chlorine (Cl_2).
6. Subtract free chlorine (FC) from total chlorine (TC). Record as ppm combined chlorine (CC) as (Cl_2). Formula: TC – FC = CC.

Total Bromine

1. Fill small tube to 9 mL mark with sample water.
2. Add 5 drops R-0001 and 5 drops R-0002. Cap and invert to mix.
3. Match color.* Record as ppm total bromine (Br_2).

If color is off-scale: Repeat test using 4.5 mL sample diluted to 9 mL mark with tap water. Multiply reading by 2 to obtain approximate sanitizer level.

If color is still off-scale: Repeat test using 1.8 mL sample diluted to 9 mL mark with tap water. Multiply reading by 5 to obtain approximate sanitizer level.

pH

1. Fill large tube to 44 mL mark with sample water.
2. Add 5 drops R-0004. Cap and invert to mix.
3. Match color. Record as pH units. If color is between two values, pH is average of the two. To LOWER pH: See Acid Demand. To RAISE pH: See Base Demand.

Acid Demand

1. Use treated sample from pH test.
2. Add R-0005 dropwise. After each drop, count, cap and invert to mix, and compare color until desired pH is matched. See Treatment Tables in Guidebook (#2004B) to continue.

Base Demand

1. Use treated sample from pH test.
2. Add R-0006 dropwise. After each drop, count, cap and invert to mix, and compare color until desired pH is matched. See Treatment Tables in Guidebook (#2004B) to continue.

Total Alkalinity (TA)

1. Fill large tube to 25 mL mark with sample water.*
2. Add 2 drops R-0007. Swirl to mix.
3. Add 5 drops R-0008. Swirl to mix. Sample will turn green.
4. Add R-0009 dropwise, swirling and counting after each drop, until color changes from green to red.
5. Multiply drops in Step 4 by 10. Record as ppm total alkalinity as calcium carbonate ($CaCO_3$).

***When high TA is anticipated:** Use 10 mL sample, 1 drop R-0007, 3 drops R-0008, and multiply drops in Step 4 by 25.

Calcium Hardness (CH)

1. Fill large tube to 25 mL mark with sample water.*
2. Add 20 drops R-0010. Swirl to mix.
3. Add 5 drops R-0011L. Swirl to mix. If calcium hardness is present, sample will turn red.
4. Add R-0012 dropwise, swirling and counting after each drop, until color changes from red to blue.
5. Multiply drops in Step 4 by 10. Record as ppm calcium hardness as calcium carbonate ($CaCO_3$).

***When high CH is anticipated:** Use 10 mL sample, 10 drops R-0010, 3 drops R-0011L, and multiply drops in Step 4 by 25.

Cyanuric Acid (CYA)

1. Fill bottle (#9191) to 7 mL mark with sample water.
2. Add R-0013 to 14 mL mark. Cap and mix for 30 seconds.
3. Transfer cloudy solution to small tube until black dot on bottom just disappears when viewed from top.
4. Read tube at liquid level on back of comparator block. Record reading as ppm cyanuric acid (CYA).

Sodium Chloride (Salt)

For 1 drop = 200 ppm

1. Fill tube (#9198) to 10 mL mark with sample water.
2. Add 1 drop R-0630. Swirl to mix. Sample will turn yellow.
3. Add R-0718 dropwise, swirling and counting after each drop, until color changes from yellow to a milky salmon (brick red).

NOTE: A white precipitate will form as R-0718 Silver Nitrate Reagent is added to the sample. First change from yellow to a milky salmon (brick red) is the endpoint.

4. Multiply drops of R-0718 by 200. Record as ppm sodium chloride (NaCl).