### FAS-DPD Commercial 7 Kit

#### Code 7022

**Free Chlorine**

**ONE DROP** = 0.2 ppm or 0.5 ppm

1. Fill test tube (0708) with sample water to the 0.2 line to measure in 0.2 ppm increments or 0.5 ppm to measure in 0.5 ppm increments.

2. Use the 0.1g spoon (0699) to add 0.1g of #PDP #1 (8607). Cap and gently swirl until powder dissolves. Solution will turn red if chlorine is present.

3. While gently swirling tube, add Chlorine/ Bromine Titrant (3992WT) one drop at a time until red color disappears. Hold bottle vertically. Count the number of drops added.

4. Multiply the number of drops used in Step 3 by 0.2 if measured in 0.2 ppm or 0.5 if measured in 0.5 ppm. Record as ppm Free Available Chlorine.

#### Total Chlorine

**ONE DROP** = 0.2 ppm or 0.5 ppm

1. To determine total chlorine, add one *Chlorine DPD #3 Tablet (6950A) to the solution from Step 4. Cap and mix until tablet dissolves. The reappearance of a red color indicates combined chlorine.

2. Continue adding Chlorine/ Bromine Titrant until the red color again disappears.

3. Multiply the total number of drops used in Step 3 plus Step 6 by 0.2 if measured in 0.2 ppm or 0.5 if measured in 0.5 ppm. Record as ppm Total Residual Chlorine.

4. Subtract Free Available Chlorine from Total Residual Chlorine. Record as ppm Combined Chlorine.

**Acid/Base Demand**

1. Remove cap from pH tube in viewer, leave pH Octa-Slide in Viewer.

2. If pH is High, add *Acid (P-6068) one drop at a time and mix until desired color match occurs. Record number of drops.

3. See Table for recommended dosage.

4. If pH is Low, add Base (P-6460) one drop at a time and mix until desired color match occurs. Record number of drops.

5. See Table for recommended dosage.

**Alkalinity**

1. Fill tube (0929) to upper Alk line with sample water.

2. Add 5 drops of *Alk 1 (P-7028). Swirl to mix.

3. Add *Alk Titrant (P-6111) dropwise while swirling until color changes from blue-green to RED. Record total drops.

4. Each drop equals 10 ppm Total Alkalinity.

   - If tube is filled to lower line, each drop equals 20 ppm Alkalinity.

### Calcium Hardness

1. Fill tube (0929) to lower line with sample water.

2. Add 5 drops of *Hard 1 (P-4259) and 5 drops of *Hard 2 (P-7030). Swirl to mix. Will turn red if hardness is present. If solution is blue, there is no measurable amount of hardness. Add Ca Hard Titrant (P-7031) dropwise while swirling until color changes from red to BLUE. Record total drops.

3. Each drop equals 20 ppm Calcium Hardness.

#### Cyanuric Acid

1. Remove cap and square inner tube (1161) from small round tube.

2. Fill small round tube to top line with sample.

3. Add one *Cyanuric Acid Tablet (6994A). Cap with solid cap and shake to dissolve.

4. Replace solid cap with calibrated square tube (1161) and cap collar. The square tube will fill with turbid liquid.

5. Viewing from above, adjust the square tube until the black dot just barely disappears. Record result at water level within the square tube.

   - For samples greater than 100 ppm, retest by adding sample to lower line, add tap water to top line, Follow steps 2-4. Multiply result by 2.