## ALKALINITY & CHLORIDE TEST KIT

**CODE 7304**

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>CONTENTS</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 mL</td>
<td>*Phenolphthalein Indicator, 1%</td>
<td>*2246-E</td>
</tr>
<tr>
<td>15 mL</td>
<td>*Methyl Orange Indicator w/Halidex, 0.1%</td>
<td>*2299-E</td>
</tr>
<tr>
<td>60 mL</td>
<td>*Alkalinity Titration Reagent</td>
<td>*6404-H</td>
</tr>
<tr>
<td>15 mL</td>
<td>*Chloride Reagent 1</td>
<td>*4504-E</td>
</tr>
<tr>
<td>60 mL</td>
<td>*Chloride Reagent 2</td>
<td>*4505PS-H</td>
</tr>
<tr>
<td>1</td>
<td>Test Tube, 2.5-5-10-15-20 mL, glass, w/cap</td>
<td>0970-S</td>
</tr>
<tr>
<td>1</td>
<td>Test Tube, Chloride, w/cap</td>
<td>4506</td>
</tr>
<tr>
<td>1</td>
<td>Pipet, dropping, plastic</td>
<td>0352</td>
</tr>
<tr>
<td>1</td>
<td>Pipet, plain, plastic, w/cap</td>
<td>0392</td>
</tr>
<tr>
<td>1</td>
<td>Pipet, plain, glass, w/cap</td>
<td>0344</td>
</tr>
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*WARNING:* Reagents marked with a * are considered hazardous substances. Material Safety Data Sheets (MSDS) are supplied for these reagents. For your safety read label and accompanying MSDS before using.

To order individual reagents or test kit components, use the specified code number.
ALKALINITY

1. Fill the test tube (0970-S) to the 10 mL line with sample water.
2. Add one drop of *Phenolphthalein Indicator, 1% (2246). If P Alkalinity is present, a red color will develop.
3. Use the plastic pipet with screw cap (0357) to add the *Alkalinity Titration Reagent (6404), one drop at a time, until the red color disappears. Swirl after each drop and count the number of drops added.

   \[ \text{P Alkalinity, ppm CaCO}_3 = 125 \times \text{Number of Drops} \]

4. To the sample from Step 3, add one drop of *Methyl Orange Indicator w/Halidex, 0.1% (2299).
5. Add *Alkalinity Titration Reagent (6404), one drop at a time, until the solution changes from yellow to pink. Count the drops.

   \[ \text{M (Total) Alkalinity} = 125 \times \text{Number of drops from Steps 3 and 5} \]

CHLORIDE - LOW RANGE

1. Fill the Chloride test tube (4506) to the 15 ppm line with sample water.
3. Use the glass pipet with screw cap (0344) to add *Chloride Reagent 2 (4505PS), one drop at a time, until the solution changes from yellow to brown. Count the drops and swirl after each drop.

   \[ \text{Chloride, ppm} = 15 \times \text{Number of Drops} \]
   \[ \text{Chloride, gpg} = 0.9 \times \text{Number of Drops} \]

CHLORIDE - HIGH RANGE

1. Use the plastic dropping pipet (0352) to add exactly 5 drops of the sample water to the Chloride test tube. Carefully fill the tube to the 15 ppm line with deionized or chloride free tap water. Mix.
2. Run steps 2 and 3 above.

   \[ \text{Chloride, ppm} = 900 \times \text{Number of Drops} \]
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