ALKA LIN ITY IN WA TER TEST KIT
CODE 7240

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>CONTENTS</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 mL</td>
<td>*Phenolphthalein Indicator, 0.5%</td>
<td>*2258-E</td>
</tr>
<tr>
<td>15 mL</td>
<td>Total Alkalinity Indicator</td>
<td>2786-E</td>
</tr>
<tr>
<td>60 mL</td>
<td>*Sulfuric Acid, 0.12N</td>
<td>*7748WT-H</td>
</tr>
<tr>
<td>1</td>
<td>Test Tube, 5-10-25 mL, plastic</td>
<td>0715</td>
</tr>
</tbody>
</table>

*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.

**NOTE:** This test allows the analyst to use different sample volumes to vary equivalencies. Select the appropriate sample volume from the table below and add reagents as specified.

<table>
<thead>
<tr>
<th>SAMPLE SIZE</th>
<th>EQUIVALENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 mL</td>
<td>1 drop = 10 ppm</td>
</tr>
<tr>
<td>10 mL</td>
<td>1 drop = 25 ppm</td>
</tr>
<tr>
<td>5 mL</td>
<td>1 drop = 50 ppm</td>
</tr>
</tbody>
</table>

**PROCEDURE**

**P ALKALINITY**

1. Rinse sample tube with sample water. Fill with desired sample size selected from table above.

2. Add *Phenolphthalein Indicator, 0.5% (2258) as follows:
   - 25 mL sample: 2 drops
   - 10 mL sample: 1 drop
   - 5 mL sample: 1 drop

   Mix. Solution will turn pink if P alkalinity is present. If solution is colorless, P alkalinity is zero; proceed to Step 5.
3. While gently swirling tube, add *Sulfuric Acid, 0.12N (7748WT), one drop at a time, until pink color disappears. Count the number of drops added. Hold bottle vertically.

4. Multiply number of drops used in Step 3 as follows:
   - 25 mL sample multiply by 10
   - 10 mL sample multiply by 25
   - 5 mL sample multiply by 50

Record as ppm P Alkalinity as CaCO₃.

DO NOT DISCARD SAMPLE IF TESTING FOR T ALKALINITY.

T ALKALINITY

5. To sample from Step 4 add Total Alkalinity Indicator (2786) as follows:
   - 25 mL sample 3 drops
   - 10 mL sample 2 drops
   - 5 mL sample 2 drops

Mix. Solution will turn green.

6. While gently swirling tube, add *Sulfuric Acid, 0.12N (7748WT), one drop at a time, until green color changes to red. Count the number of drops added. Hold bottle vertically.

7. Multiply number of drops used in Step 6 as follows:
   - 25 mL sample multiply by 10
   - 10 mL sample multiply by 25
   - 5 mL sample multiply by 50

Add this result to the P Alkalinity from Step 4. Record as ppm T Alkalinity as CaCO₃.

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