## ALKALINITY IN WATER TEST KIT

CODE 7240-01

| QUANTITY | CONTENTS | CODE |
| :--- | :--- | :---: |
| 15 mL | *Phenolphthalein Indicator, $0.5 \%$ | $* 2258-\mathrm{E}$ |
| 15 mL | Total Alkalinity Indicator | $2786-\mathrm{E}$ |
| $2 \times 30 \mathrm{~mL}$ | $*$ Sulfuric Acid, 0.12 N | $* 7748 \mathrm{WT}-\mathrm{G}$ |
| 1 | Test Tube, $5-10-25 \mathrm{~mL}$, plastic, w/cap | 0715 |

*WARNING: Reagents marked with an * are considered to be potential health hazards. To view or print a Material Safety Data Sheet (MSDS) for these reagents see MSDS CD or www.lamotte.com. To obtain a printed copy, contact LaMotte by e-mail, phone or fax.
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.

| SAMPLE SIZE | EQUIVALENCE |
| :--- | :--- |
| 25 mL | 1 drop $=10 \mathrm{ppm}$ |
| 10 mL | 1 drop $=25 \mathrm{ppm}$ |
| 5 mL | 1 drop $=50 \mathrm{ppm}$ |

## PHENOLPHTHALEIN (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, 0.12 N (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:

$$
\begin{array}{ll}
25 \mathrm{~mL} \text { sample } & \text { multiply by } 10 \\
10 \mathrm{~mL} \text { sample } & \text { multiply by } 25 \\
5 \mathrm{~mL} \text { sample } & \text { multiply by } 50
\end{array}
$$

Record as ppm P Alkalinity as $\mathrm{CaCO}_{3}$.
DO NOT DISCARD SAMPLE IF TESTING FOR TOTAL (T) ALKALINITY.

## TOTAL (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, 0.12 N (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:

$$
\begin{array}{ll}
25 \mathrm{~mL} \text { sample } & \text { multiply by } 10 \\
10 \mathrm{~mL} \text { sample } & \text { multiply by } 25 \\
5 \mathrm{~mL} \text { sample } & \text { multiply by } 50
\end{array}
$$

Add this result to the P Alkalinity from Step 4. Record as ppm T Alkalinity as $\mathrm{CaCO}_{3}$.

