

ALKALINITY TEST KIT

Model AL-AP

Cat.No. 24443-00



High Range

1. Fill the plastic measuring tube level full with the water to be tested. Pour the contents of the tube into the mixing bottle.
2. Open one Phenolphthalein Indicator Powder Pillow as shown in Figure 1. Add the contents of the pillow to the mixing bottle. Swirl to mix as shown in Figure 2.
3. If the water remains colorless after the addition of the phenolphthalein, the phenolphthalein alkalinity is zero. If this is the case, proceed to Step 6.
4. If the water becomes pink with the addition of phenolphthalein, add Sulfuric Acid Standard Solution drop-wise while swirling to mix after each drop. Continue adding and counting the drops until the water becomes colorless.

WARNING: The chemicals in this kit may be hazardous to the health and safety of the user if inappropriately handled. Please read all warnings before performing the test and use appropriate safety equipment.

HACH COMPANY, P.O. BOX 389, LOVELAND, COLORADO 80359
TELEPHONE: WITHIN U.S. 800-227-4224, OUTSIDE U.S. 970-669-3050, TELEX: 160840

5. The phenolphthalein alkalinity in grains per gallon as calcium carbonate (CaCO_3) is equal to the number of drops of sulfuric acid used. To convert to milligrams per liter, multiply the g/g value by 17.
6. Add the contents of one Bromcresol Green-Methyl Red Indicator Powder Pillow to the mixing bottle and swirl to mix. The color will change to blue-green.
7. Continue the drop-count procedure, adding sulfuric acid while counting the drops and swirling to mix until the color changes to pink.
8. The total (methyl orange) alkalinity in g/g as CaCO_3 is equal to the total number of drops of sulfuric acid used in both Steps 4 and 7. To convert to mg/L total alkalinity, multiply the g/g value by 17.

Low Range

1. Fill the mixing bottle to the 15-mL mark with the water to be tested.
2. Add the contents of one Phenolphthalein Indicator Powder Pillow and swirl to mix as shown in Figure 2.
3. If the water remains colorless, the phenolphthalein alkalinity is zero. Proceed to Step 6. If the water becomes pink, proceed to Step 4.
4. Add Sulfuric Acid Standard Solution drop-wise while swirling to mix after each drop. Continue adding and counting the drops until the water becomes colorless.
5. The phenolphthalein alkalinity in grains per gallon as calcium carbonate (CaCO_3) is found by dividing the number of drops of sulfuric acid used in Step 4 by 2.5. To convert to milligrams per liter alkalinity, multiply the g/g value by 17.

6. Add the contents of one Bromcresol Green-Methyl Red Indicator Powder Pillow to the mixing bottle and swirl to mix. The color will change to blue-green.
7. Continue the drop-count procedure, adding sulfuric acid while counting the drops and swirling to mix until the color changes to pink.
8. The total (methyl-orange)alkalinity in g/g as CaCO_3 is found by dividing the total number of drops of sulfuric acid used in both Step 4 and Step 7 by 2.5. To convert to mg/L total alkalinity, multiply the g/g value by 17.

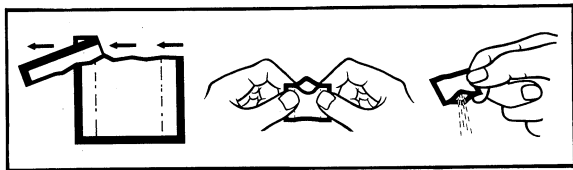


FIGURE 1

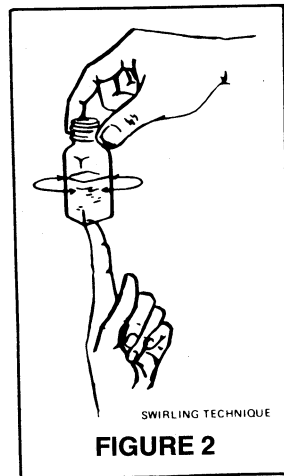


FIGURE 2

Replacements

Cat. No.	Description	Unit
24374-00	Reagent Set - contains one each:	each
943-99	Bromcresol Green-Methyl Red Indicator	pk/100
	Powder Pillows	
942-99	Phenolphthalein Indicator Powder Pillows	pk/100
26205-32	Sulfuric Acid Standard Solution 0.030N	100 mL MDB*
2327-06	Bottle, mixing	pk/6
438-00	Measuring Tube, plastic, 5.83 mL	each

*Marked dropping bottle

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