



# Alkalinity Test Kit

AL-TA (2314500)

DOC326.97.00107

## Test preparation

**CAUTION:** Review the Safety Data Sheets (MSDS/SDS) for the chemicals that are used. Use the recommended personal protective equipment.

- Hold the dropper vertically above the sample. Do not let the dropper touch the bottle during the titration.
- Rinse the tubes and bottles with sample before the test. Rinse the tubes and bottles with deionized water after the test.
- Alkalinity is the capacity of water to neutralize acids. Carbonates, bicarbonates and hydroxides are the primary sources of alkalinity in water. A high total alkalinity value makes water more resistant to pH changes.

## Alkalinity concentration in gpg and mg/L

Find in [Table 1](#) the total number of drops used in the test procedure, then read across to find the concentration in gpg (grains per gallon) and mg/L. As an alternative, multiply the total number of drops by 22.5 for gpg or by 385 for mg/L. For proprietary solutions, multiply the number of drops by the factor supplied by the vendor.

**Table 1 Alkalinity concentration in gpg and mg/L**

Number of drops	Total Alkalinity as CaCO <sub>3</sub> (gpg)	Total Alkalinity as CaCO <sub>3</sub> (mg/L)
1	23	385
2	45	770
3	68	1155
4	90	1540
5	113	1925
6	135	2310
7	158	2695
8	180	3080
9	203	3465
10	225	3850
11	250	4235
12	270	4620
13	293	5005
14	315	5390
15	338	5775
16	360	6160
17	383	6545
18	405	6930
19	428	7315
20	450	7700
21	473	8085
22	495	8470

## Replacement items

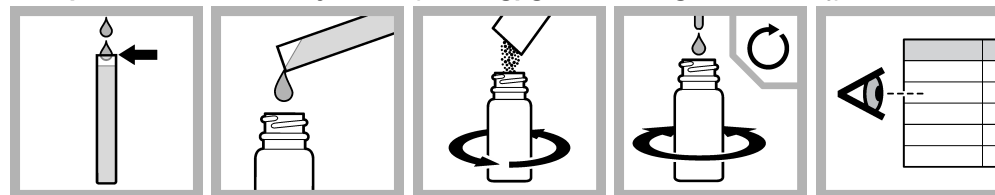
**NOTE:** Product and Article numbers may vary for some selling regions. Contact the appropriate distributor or refer to the company website for contact information.

Description	Unit	Item no.
Bromcresol Green-Methyl Red Indicator Powder Pillows	100/pkg	94399
Sulfuric Acid Standard Solution, 0.500 N	100 mL MDB	212132
Bottle, square, 29 mL, with 10, 15, 20 and 23-mL marks	6/pkg	232706
Measuring tube, plastic, 5.83 mL	each	43800

## Optional items

Description	Unit	Item no.
Water, deionized	500 mL	27249

## Test procedure—Alkalinity, Total (0–495 gpg, 0–8470 mg/L as CaCO<sub>3</sub>)



1. Fill the measuring tube with sample.
2. Pour the sample into the mixing bottle.
3. Add one Bromcresol Green-Methyl Red Powder Pillow. Swirl to mix.
4. Add the Sulfuric Acid Standard Solution by drops. Mix after each drop. Count the drops until the color changes from green to pink.
5. Refer to [Table 1](#) on page 1 to get the total (methyl orange) alkalinity result.

