

HI3820

Acidity Test Kit

With the use of diluted sodium hydroxide as the titrant and bromphenol blue or phenolphthalein indicators, the acidity can be determined. Methyl orange acidity is carried out by titrating with sodium hydroxide until the solution turns from yellow to green/blue (pH endpoint about 4.5). The total acidity is determined by titrating to an endpoint pH of 8.3, using phenolphthalein as an indicator. This is known as phenolphthalein acidity.



HI3820 Acidity

HI3811

Alkalinity Test Kit

Alkalinity can be measured as phenolphthalein alkalinity and total alkalinity. Phenolphthalein alkalinity is determined by neutralizing the sample to a pH of 8.3 using a dilute hydrochloric acid solution, and a phenolphthalein indicator. Total alkalinity is determined by titrating the sample to a pH of 4.5, bromocresol green.



HI3811 Alkalinity Phenolphthalein and Total

Ammonia Test Kits

HI3824

for Fresh Water

The Nessler reagent reacts with ammonia, under strong alkaline conditions, to form a yellow colored complex.

HI3826

for Seawater

The ammonia as nitrogen is determined by a colorimetric method. The Nessler reagent reacts with ammonia, under strong alkaline conditions, to form a yellow-colored complex. Reagent 1 for seawater inhibits precipitation of calcium and magnesium ions due to the presence of the alkaline Nessler reagent. The color intensity of the solution determines the ammonia concentration.

Method	Range	Smallest Increment	Chemical Method	# Tests
HI3820 Acidity (as CaCO₃*)				
titration	0-100 mg/L (ppm) 0-500 mg/L (ppm)	1 mg/L (ppm) 5 mg/L (ppm)	methyl-orange/ phenolphthalein	110 avg.
HI3811 Alkalinity (as CaCO₃*)				
titration	0-100 mg/L (ppm) 0-300 mg/L (ppm)	1 mg/L (ppm) 3 mg/L (ppm)	phenolphthalein/ bromphenol blue	110 avg.
HI3824 Ammonia (as NH₃-N) in fresh water				
colorimetric	0.0-2.5 mg/L (ppm)	0.5 mg/L (ppm)	Nessler	25 avg.
HI3826 Ammonia (as NH₃-N) in salt water				
colorimetric	0.0-2.5 mg/L (ppm)	0.5 mg/L (ppm)	Nessler	25 avg.

Ordering Information

HI3820 test kit comes with 10 mL dechlorinating reagent, 10 mL bromophenol blue indicator, 10 mL phenolphthalein indicator, 120 mL acidity titrant, 10 mL calibrated vessel, 50 mL calibrated vessel, and calibrated syringe with tip.

HI3811 test kit comes with 10 mL phenolphthalein indicator, 10 mL bromophenol blue indicator, 120 mL alkalinity titrant, 10 mL calibrated vessel, 50 mL calibrated vessel, and calibrated syringe with tip.

HI3824 test kit comes with 20 mL plastic beaker, color comparison cube, 20 mL ammonia reagent 1 (for fresh water) and 20 mL Nessler reagent.

HI3826 test kit comes with 20 mL plastic beaker, color comparison cube, 20 mL ammonia reagent 1 (for seawater) and 20 mL Nessler reagent.

* 1 gpg = 17 ppm CaCO₃

See a list of chemical test kit reagents beginning on page 1.52