

HI38074 Boron Test Kit

The HI38074 test kit can determine boron concentration in irrigation waters by direct titration of boric acid.

HI3830 Bromine Test Kit

The Hanna portable bromine test kit determines the bromine level in water with efficiency. The first step involves pH adjustment of the sample to pH 6.3 by adding pH buffer. The second step consists of adding the second reagent, an indicator solution which contains DPD (N, N-diethyl-p-phenylenediamine), the DPD is immediately oxidized by bromine producing a reddish color. The color intensity of the solution determines the bromine concentration.

HI3818 Carbon Dioxide Test Kit

Carbon dioxide (as carbonic acid) in the water sample is neutralized with a dilute sodium-hydroxide solution to a pH of 8.3 using a phenolphthalein indicator. This process converts carbonic acid to sodium bicarbonate:



The color change from clear to pink determines the end point of this titration.

HI3815 Chloride Test Kit

The pH is lowered to approximately 3 by the addition of nitric acid. Mercuric ions react with chloride ions to form mercuric chloride; when excess mercuric ions are present, they complex with diphenylcarbazone to form a purple solution. The color change from yellow to purple determines the endpoint of this titration.



HI3818 Carbon Dioxide

Method	Range	Smallest Increment	Chemical Method	# Tests
HI38074	Boron			
titration	0.0-5.0 mg/L (ppm)	0.2 mg/L (ppm)	boric acid	100
HI3830	Bromine (as Br₂)			
colorimetric	0.0-3.0 mg/L (ppm)	0.6 mg/L (ppm)	DPD	60 avg.
HI3818	Carbon Dioxide (as CO₂)			
titration	0.0-10.0 mg/L (ppm) 0.0-50.0 mg/L (ppm) 0-100 mg/L (ppm)	0.1 mg/L (ppm) 0.5 mg/L (ppm) 1 mg/L (ppm)	phenolphthalein	110 avg.
HI3815	Chloride (as Cl⁻)			
titration	0-100 mg/L (ppm) 0-1000 mg/L (ppm)	1 mg/L (ppm) 10 mg/L (ppm)	mercuric nitrate	110 avg.

Ordering Information

HI38074 test kit comes with reagent for 100 tests, HI98103 Checker pocket pH meter, pH 4.01 (1 sachet), pH 7.01 (1 sachet), screwdriver, 120 mL bottle with cap, 50 mL calibrated vessel, and 1 mL plastic pipettes (2).

HI3830 test kit comes with 30 mL reagent 1, 20 mL reagent 2, color comparison cube, and plastic vessel.

HI3818 test kit comes with 10 mL phenolphthalein indicator, 120 mL carbon dioxide reagent, 10 mL calibrated vessel, 50 mL calibrated vessel and calibrated syringe with tip.

HI3815 test kit comes with 15 mL diphenylcarbazone indicator, 30 mL nitric acid solution, 120 mL mercuric nitrate solution, 50 mL calibrated vessel, 10 mL calibrated vessel, calibrated syringe with tip.

* 1 ppm = 17 ppm CaCO₃

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