

## Boron, Bromine, Carbon Dioxide

### Boron

Boron is one of the micronutrients essential for plant growth. It may be present in natural water or in industrial waste effluents. Boron, in excess of 2.0 mg/L in irrigation water, is detrimental to many plants, but some plants may even be affected adversely by concentrations lower than 1.0 mg/L.

Our kit, having an operational range from 0 to 5 mg/L, with a resolution of 0.2 mg/L, is particularly suitable for this application.

Since the pH level is very important for a correct measurement of the amount of Boron, the kit is equipped with our *Checker*<sup>®</sup> pocket-sized pH meter, for an accurate measurement.



HI 3830 - Bromine

### Bromine

Because it is more stable and less volatile than chlorine, bromine is used as a disinfectant in swimming pools, spas and hot tubs. As with chlorine, excessive quantities of bromine in water can be dangerous to health and can cause eye irritation.

Daily monitoring of bromine concentration prevents damage to equipment and contributes to the optimization and the efficiency of the process while providing for increased user safety.



HI 3818 - Carbon Dioxide

### Carbon Dioxide

In nature, lakes and rivers contain carbon dioxide in concentrations smaller than 10 mg/L (or ppm), however, stagnant or contaminated water can contain higher concentrations because of organic decomposition. This creates a problem for fish farming applications. Carbon dioxide is added to drinking water during the final phases of the purification process. In water softening processes carbon dioxide must be kept at a certain level in order to prevent corrosion.

Parameter	Code	Method	Range*	Smallest Increment	Chemical Method	Number of Tests	Weight
Boron	HI 38074	Titration	0.0-5.0 mg/L	0.2 mg/L	Boric Acid	100	780 g
Bromine (as Br <sub>2</sub> )	HI 3830	Colorimetric	0.0-3.0 mg/L	0.6 mg/L	DPD	approx. 60	370 g
Carbonic Dioxide (as CO <sub>2</sub> )	HI 3818	Titration	0.0-10.0 mg/L 0.0-50.0 mg/L 0-100 mg/L	0.1 mg/L 0.5 mg/L 1 mg/L	Phenolphthalein	approx. 110	460 g

\* 1 mg/L = 1 ppm

For spare reagents, see section V. For accessories, see section U.