

HI38074

## Boron Test Kit

The HI38074 is a titration-based chemical test kit that determines the boron concentration in irrigation water within a 0 to 5 mg/L (ppm) range. The HI38074 is supplied with all of the necessary reagents and equipment to perform the analysis, including the HI98103 Checker pH meter. The HI 98103 Checker pH meter is used for sample preparation and for the determination of the pH titration endpoint. The HI38074 contains enough reagents for perform 100 tests.

### Complete setup

- All required materials are included with the test kit, such as the sample beaker, plastic pipettes, pH adjustment reagents, and pocket pH meter.
- **High resolution**
  - Readings from 0 to 5 mg/L are determined to 0.2 mg/L resolution.
- **Replacement reagents available**
  - There is no need to buy a new kit when reagents are exhausted. The HI38074-100 can be ordered to replace the reagents supplied with the kit.

### Significance of Use

Boron is one of the micronutrients essential for plant growth. It may be present naturally in water, or it may find its way into a watercourse through industrial waste effluents. Boron in excess of 2.0 mg/L in irrigation water can be detrimental to plant growth, and some plants may even be adversely affected by concentrations lower than 1.0 mg/L.

The United States Department of Agriculture (USDA) reports the following classification:

#### Boron (ppm)    Effect on crops

- < 0.5      good (except for very sensitive crops)
- 0.5 to 2.0    some risks (many crops must be excluded)
- > 2.0      dangerous (may only be used for very tolerant crops)



Specifications	HI38074 Boron
Type	titration
Range	0.0-5.0 mg/L (ppm)
Smallest Increment	0.2 mg/L (ppm)
Method	boric acid
Number of Tests	100 avg.
<b>Ordering Information</b>	<b>HI38074</b> 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).
<b>Reagent</b>	<b>HI38074-100</b> Boron, 100 tests avg

HI3830

## Bromine Test Kit

The HI3830 is a colorimetric chemical test kit that determines the bromine concentration in samples within a 0.0 to 3.0 mg/L (ppm) Br<sub>2</sub> range. The HI3830 is supplied with all of the necessary reagents and equipment to perform the analysis. The test kit contains enough reagents for perform approximately 60 tests.

- **Complete setup**
  - All required materials are included with the test kit, such as the sample beaker, color comparison cube, and reagent dropper bottles.
- **High resolution**
  - Readings from 0.0 to 3.0 mg/L Br<sub>2</sub> are determined to 0.6 mg/L resolution.
- **Replacement reagents available**
  - There is no need to buy a new kit when reagents are exhausted. The HI3830-060 can be ordered to replace the reagents supplied with the kit.

### Significance of Use

Bromine is less volatile and more stable than chlorine, making it a good choice as a disinfectant in pools, spas, and hot tubs, and a sanitizing agent in drinking water systems. Like chlorine, excess amounts 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 efficiency of the process while providing for increased user safety.



Specifications	HI3830 Bromine (as Br <sub>2</sub> )
Type	colorimetric
Range	0.0-3.0 mg/L (ppm)
Smallest Increment	0.6 mg/L (ppm)
Method	DPD
Number of Tests	60 avg.
<b>Ordering Information</b>	<b>HI3830</b> test kit comes with 30 mL reagent 1, 20 mL reagent 2, color comparison cube, and plastic vessel.
<b>Reagent</b>	<b>HI3830-060</b> Bromine, 60 tests avg