

## Instruction Manual

# HI 3830 Bromine Test Kit

  
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Dear Customer,

Thank you for choosing a Hanna Product.

Please read the instructions carefully before using the chemical test kit. It will provide you with the necessary information for correct use of the kit.

Remove the chemical test kit from the packing material and examine it carefully to make sure that no damage has occurred during shipping. If there is any noticeable damage, notify your Dealer or the nearest Hanna office immediately.

Each kit is supplied with:

- Reagent 1 (30 mL);
- Reagent 2 (20 mL);
- 1 Color Comparator Cube;
- 1 Plastic Vessel.

Note: Any damaged or defective item must be returned in its original packing materials.

12/99 PRINTED IN ITALY  
ISTR3830

## SPECIFICATIONS

Range	0 to 3 mg/L (ppm) Bromine
Smallest Increment	0.6 mg/L (ppm) Bromine
Analysis Method	Colorimetric
Sample Size	25 mL
Number of Tests	60 (average)
Case Dimensions	200x120x60 mm (7.9x4.7x2.9")
Shipping Weight	370 g (13.9 oz.)

## SIGNIFICANCE AND USE

Bromine is less volatile and more stable than chlorine. This makes bromine a good choice as a disinfectant in pools and a sanitizing agent in drinking water systems. Like chlorine excess amounts can produce hazards. A daily monitoring of bromine levels prevents adverse conditions and optimizes its proper function.

The Hanna Bromine Test Kit determines the bromine level in water with swift efficiency. The case is compact, which makes the kit available for onsite tests.

No chlorine or iodine can be present in the water sample for this test to work properly.

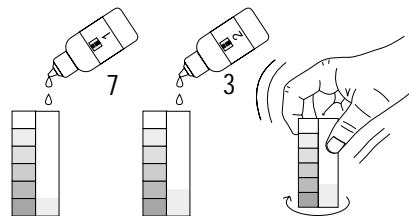
## CHEMICAL REACTION

A colorimetric method measures the bromine concentration via a color cube. The sample is adjusted to a pH of approximately 6.3 pH with a phosphate buffer solution. The addition of DPD (N,N-diethyl-p-phenylenediamine) is immediately oxidized by bromine producing a reddish color. The color intensity of the solution determines the bromine concentration.

## INSTRUCTIONS

READ THE ENTIRE INSTRUCTIONS BEFORE USING THE KIT

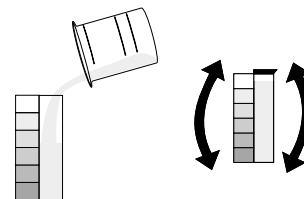
- Add 7 drops of Reagent 1 and 3 drops of Reagent 2 to the color comparator cube and mix by carefully swirling the cube in tight circles.



- Remove the cap from the plastic vessel. Rinse the plastic vessel and fill to the 25 mL mark with water sample.



- Transfer the 25 mL water sample from the plastic vessel into the color comparator cube. Replace the cap and mix it by inverting several times.



- Determine which color band best matches the solution in the vessel and record the results in mg/L (ppm) bromine.



## ACCESSORIES

HI 3830-60 Spare reagents (60 tests)

## REFERENCES

Standard Methods for the Examination of Water and Wastewater, 16<sup>th</sup> Edition, 1985.

## HEALTH AND SAFETY

The chemicals contained in this kit may be hazardous if improperly handled. Read Health and Safety Data Sheet before performing this test.