

## Instruction Manual

# HI 3847 Copper Test Kit



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:

- HI 3847-0 Reagent, packets (100 pcs);
- 1 color comparator cube.

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

ISTR3847 03/99 PRINTED IN ITALY

## SPECIFICATIONS

Range	0 to 2.5 ppm
Smallest Increment	0.5 ppm
Analysis Method	Colorimetric, bicinchoninate
Sample Size	5 mL
Number of Tests	100
Case Dimensions	230x59x70 mm (9.0x2.3x2.8")
Shipping Weight	150 g (5.3 oz.)

## SIGNIFICANCE AND USE

Copper is an essential trace element in human diet (the daily requirement is around 2.0 mg) and a factor in plant metabolism. Copper salts are used in water supply systems to control biological growth in reservoirs. Corrosion of copper alloys in pipe fittings on the other hand may introduce considerable quantities into the water supplies.

Note: mg/L is equivalent to ppm (parts per million).

## CHEMICAL REACTION

Copper salts react with bicinchoninate reagent to form a purple product in a neutral buffered condition. The amount of color developed is proportional to the concentration of copper present in the aqueous sample.

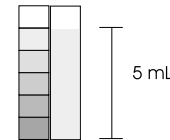
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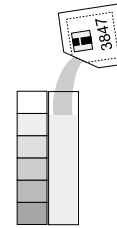
## INSTRUCTIONS

READ THE ENTIRE INSTRUCTIONS BEFORE USING THE KIT

- Fill one color comparator cube with 5 mL of the sample (to the mark).



- Add 1 packet of HI 3847-0, replace the cap and shake well.



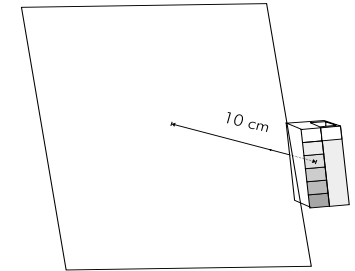
- Wait 45 seconds to allow color to develop.



- Determine which color matches the solution in the vessel and record the result in mg/L (or ppm) of Copper.



- It is better to match the color with a white sheet at about 10 cm behind the comparator.



Note: To measure Copper in the 0-0.25 ppm range, use the HI 3856 Copper Ultra Low Range Test Kit.

## REFERENCES

Adaptation of EPA approved method.

## HEALTH AND SAFETY

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