

# Copper CHEMets® Kit

**K-3510/R-3510:** 0 - 1 & 1 - 10 ppm

## Safety Information

Read SDS (available at [www.chemetrics.com](http://www.chemetrics.com)) before performing this test procedure. Wear safety glasses and protective gloves.

## Test Procedure

1. Fill the sample cup to the 25 mL mark with the sample to be tested (fig 1).
2. Place the CHEMet ampoule, tip first, into the sample cup. Snap the tip. The ampoule will fill leaving a bubble for mixing (fig 2).
3. To mix the ampoule, invert it several times, allowing the bubble to travel from end to end.
4. Dry the ampoule. Obtain a test result **2 minutes** after snapping the tip.
5. Obtain a test result using the appropriate comparator.
  - a. **Low Range Comparator (fig. 3):** Place the ampoule, flat end first, into the comparator. Hold the comparator up toward a source of light and view from the bottom. Rotate the comparator until the best color match is found.
  - b. **High Range Comparator (fig. 4):** Place the ampoule between the color standards until the best color match is found.

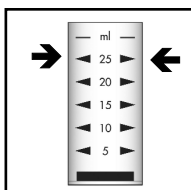


Figure 1

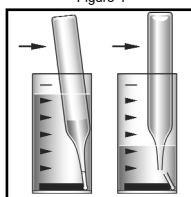


Figure 2

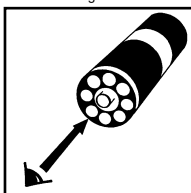


Figure 3

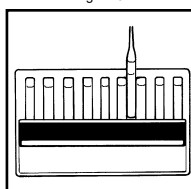


Figure 4

## Test Method

The Copper CHEMets®<sup>1</sup> test method employs the bathocuproine chemistry.<sup>2</sup> In a neutral solution, cuprous ions react with bathocuproine (2,9-dimethyl-4,7-diphenyl-1,10-phenanthrolinedisulfonic acid, disodium salt) to form an orange colored chelate in direct proportion to the copper concentration.

This test method is applicable to drinking water, surface water, groundwater, wastewaters and seawater. For seawater analysis wait **1 minute** for color development.

1. CHEMets is a registered trademark of CHEMetrics, LLC U.S. Patent No. 3,634,038
2. APHA Standard Methods, 23rd ed., Method 3500-Cu C - 1999

Visit [www.chemetrics.com](http://www.chemetrics.com) to view product demonstration videos.  
Always follow the test procedure above to perform a test.



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