Copper CHEMets®
0 - 1 & 1 - 10 ppm

Safety Information

Read MSDS before performing this test procedure. Wear safety glasses.

Test Procedure

1. Fill the sample cup to the 25 mL mark with the sample (fig 1).
2. Place the CHEMet ampoule in the sample cup. Snap the tip by pressing the ampoule against the side of the cup. The ampoule will fill leaving a small bubble to facilitate mixing (fig 2).
3. Mix the contents of the ampoule by inverting it several times, allowing the bubble to travel from end to end each time. Wipe all liquid from the exterior of the ampoule. Wait **2 minutes** for color development.
4. Use the appropriate comparator to determine the level of copper in the sample. If the color of the CHEMet ampoule is between two color standards, a concentration estimate can be made.
   a. Place the CHEMet ampoule, flat end downward into the center tube of the low range comparator. Direct the top of the comparator up toward a source of bright light while viewing from the bottom. Rotate the comparator until the color standard below the CHEMet ampoule shows the closest match (fig 3).

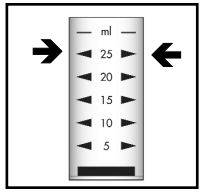

Figure 1

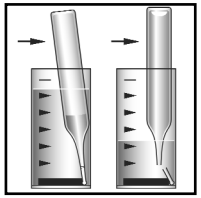
Figure 2

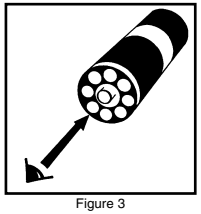
Figure 3

   b. Hold the high range comparator in a nearly horizontal position while standing directly beneath a bright source of light. Place the CHEMet ampoule between the color standards moving it from left to right along the comparator until the best color match is found (fig 4).

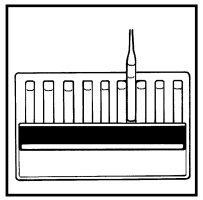
Figure 4

Test Method

The Copper CHEMets®[1] test method employs the bathocuproine chemistry.[2] 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. Results are expressed in ppm (mg/Liter) Cu.

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, Inc. U.S. Patent No. 3,634,038
2. APHA Standard Methods, 20th ed., p. 3-73, method 3500-Cu C (1998)

Reorder Information	**Cat. No.**
***Test Kit**, complete*	*K-3510*
***Refill**, 30 CHEMet ampoules*	*R-3510*
***Sample Cup**, 25 mL, package of six*	*A-0013*
***Comparator**, 0-1 ppm*	*C-3501*
***Comparator**, 1-10 ppm*	*C-3510*

CHEMetrics
SIMPLICITY IN WATER ANALYSIS

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