

# Formaldehyde CHEMets®

## 0 - 1 & 1 - 5 ppm

### Test Procedure

1. Fill the sample cup to the 20 mL mark with the sample (fig 1).
2. Add 6 drops of A-4201 Activator Solution (fig 2). Stir briefly with the tip of the ampoule to mix the contents of the sample cup.
3. Add 4 drops of A-4202 Activator Solution (fig 2). Stir briefly.
4. 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 3).
5. 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 **12 minutes** for color development.
6. Use the appropriate comparator to determine the level of formaldehyde 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 down-ward 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 4).

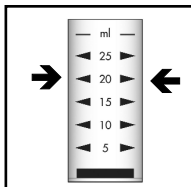


Figure 1

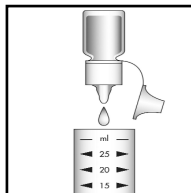


Figure 2

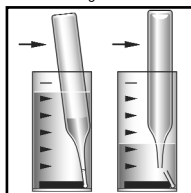


Figure 3

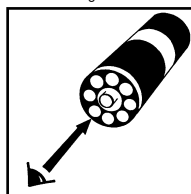


Figure 4

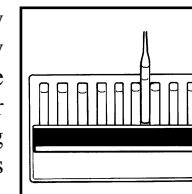


Figure 5

- 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 5).

### Activator Solution Preparation

Fill the A-4201 Activator Solution bottle to the shoulder with distilled water. Shake the bottle until the dry chemical dissolves completely. If the solution will be stored at room temperature, label the bottle with a **6 week** expiration date. If it will be stored in the refrigerator, label it with a **4 month** expiration date.

### Test Method

The Formaldehyde CHEMets®<sup>1</sup> test method employs the Purpald®<sup>2</sup> chemistry. In a highly alkaline solution, and in conjunction with an oxidizing agent, formaldehyde reacts with Purpald to form a purple colored complex in direct proportion to the formaldehyde concentration. Results are expressed in ppm (mg/Liter) CH<sub>2</sub>O. This test procedure is somewhat temperature dependent. For best results, samples should be less than 100°F. Certain aldehydes and alcohols will cause high test results.

1. CHEMets is a registered trademark of CHEMetrics, Inc. U.S. Patent No. 3,634,038
2. Purpald is a registered trademark of Aldrich Chemical Company. The reagent methodology was developed by Aldrich Chemical Company.

### Safety Information

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

### Reorder Information

### Cat. No.

Test Kit, complete	K-4605
Refill, 30 CHEMet ampoules	R-4605
Activator Solution, six 20 mL bottles	A-4201
Activator Solution, six 10 mL bottles	A-4202
Sample Cup, 25 mL, package of six	A-0013
Comparator, 0-1 ppm	C-4601
Comparator, 1-5 ppm	C-4605

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Dec. 06, Rev. 6