

## Formaldehyde VACUettes® 0 - 1200 & 1200 - 6000 ppm

### Test Procedure

1. Fill the dilutor snapper cup to the **top edge** with **formaldehyde free water**.
2. Add **7 drops** of A-4201 Activator Solution (fig 1). Stir briefly to mix the contents of the cup.
3. Add **5 drops** of A-4202 Activator Solution (fig 1). Stir briefly.
4. Fill the micro-test tube approximately halfway with **your sample** (fig 2).
5. Make sure that the VACUette tip is firmly attached to the ampoule tip.
6. Holding the VACUette almost horizontally, touch the tip to the contents of the micro-test tube (fig 2).  
**NOTE:** The capillary tip will fill completely with sample.
7. Place the VACUette in the dilutor snapper cup and snap the tip (fig 3). The ampoule will fill leaving a bubble to facilitate mixing.
8. Mix the contents of the ampoule by inverting it several times, allowing the bubble to travel from end to end. Dry the exterior of the ampoule and wait **12 minutes** for color development.
9. Use the appropriate comparator to determine the level of formaldehyde in the sample. If the color of the VACUette ampoule is between two color standards, a concentration estimate can be made.
  - a. Place the VACUette ampoule, flat end downward into the center tube of the low range comparator. Direct the top of the comparator up toward a bright source of light while viewing from the bottom. Rotate the comparator until the color standard below the ampoule shows the closest match (fig 4).

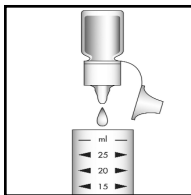


Figure 1

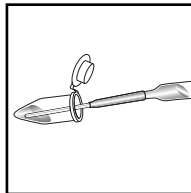


Figure 2

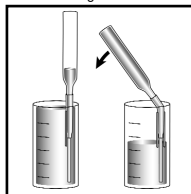


Figure 3

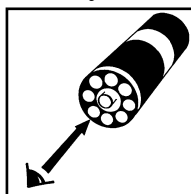


Figure 4

- b. Hold the high range comparator in a nearly horizontal position while standing directly beneath a bright source of light. Place the VACUette ampoule between the color standards moving it from left to right along the comparator until the best color match is found (fig 5).

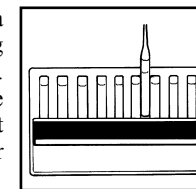


Figure 5

### 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 (4 months, if stored in the refrigerator).

### Test Method

The Formaldehyde VACUettes®<sup>1</sup> test method employs the Purpald®<sup>2</sup> chemistry. 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. VACUettes is a registered trademark of CHEMetrics, Inc. U.S. Patent Nos. 4,537,747 & 4,596,780
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.

<i>Test Kit, complete</i> . . . . .	<i>K-4605C</i>
<i>Refill, 30 VACUette ampoules</i> . . . . .	<i>R-4605C</i>
<i>Activator Solution, six 20 mL bottles</i> . . . . .	<i>A-4201</i>
<i>Activator Solution, six 10 mL bottles</i> . . . . .	<i>A-4202</i>
<i>Dilutor Snapper Cup, 25 mL, package of six</i> . . . . .	<i>A-0018</i>
<i>Micro-Test Tube, package of ten</i> . . . . .	<i>A-0015</i>
<i>Comparator, 0-1200 ppm</i> . . . . .	<i>C-4601C</i>
<i>Comparator, 1200-6000 ppm</i> . . . . .	<i>C-4605C</i>

CHEMetrics, Inc., 4295 Catlett Road, Calverton, VA 20138-0214 U.S.A.  
Phone: (800) 356-3072; Fax: (540) 788-4856; E-Mail: [orders@chemetrics.com](mailto:orders@chemetrics.com)  
[www.chemetrics.com](http://www.chemetrics.com) Apr. 06, Rev. 7