

# Ozone CHEMets®

## 0 - 0.6 & 0.6 - 2 ppm

### Test Procedure

1. Add 5 drops of A-7400 Activator Solution (fig 1) to the sample cup.
2. Fill the sample cup to the 25 mL mark with the sample, being careful to minimize turbulence (fig 2).

**Note:** Ozone loss from sample occurs rapidly. Do not transfer sample to other containers. Analyze immediately.

3. 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).

4. 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 **1 minute** for color development.

5. Use the appropriate comparator to determine the level of ozone 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 4).

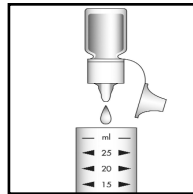


Figure 1

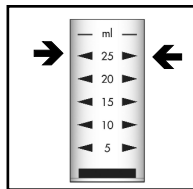


Figure 2

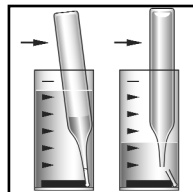


Figure 3

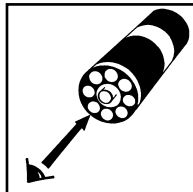


Figure 4

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

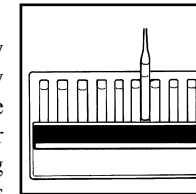


Figure 5

### Test Method

The Ozone CHEMets®<sup>1</sup> test method employs the DDPD chemistry.<sup>2</sup> The sample is treated with an excess of potassium iodide. Ozone oxidizes the iodide to iodine. The iodine then oxidizes DDPD, a methyl-substituted form of DPD (N,N-diethyl-p-phenylenediamine), to form a purple colored species in direct proportion to the ozone concentration. Results are expressed in ppm (mg/Liter) O<sub>3</sub>.

Various oxidizing agents such as halogens, ferric ions and cupric ions will produce high test results.

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

### Safety Information

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

### Reorder Information

### Cat. No.

<i>Test Kit, complete</i> . . . . .	<i>K-7402</i>
<i>Refill, 30 CHEMet ampoules</i> . . . . .	<i>R-7402</i>
<i>Activator Solution, six 10 mL bottles</i> . . . . .	<i>A-7400</i>
<i>Sample Cup, 25 mL, package of six</i> . . . . .	<i>A-0013</i>
<i>Comparator, 0-0.6 ppm</i> . . . . .	<i>C-7401</i>
<i>Comparator, 0.6-2 ppm</i> . . . . .	<i>C-7402</i>

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[www.chemetrics.com](http://www.chemetrics.com) Jan. 07, Rev. 5