Oxygen CHEMets® Kit

K-7501/R-7501: 0 - 1 ppm

Sampling

The most critical part of any dissolved oxygen test is sampling.

For flowing samples, the sample stream must be completely leak-free. To accomplish this, the sampling tube is vertically mounted with a tube of inert material connecting the sample point to the bottom of the sampling tube. Use stainless steel, type 304 or 316, or glass tubing with short neoprene connections. Do not use copper tubing, long sections of neoprene or other polymeric tubing.

When a flowing sample is not available, use the 25 mL sample cup supplied with the kit to collect the sample. Handle the sample with as little agitation as possible. The sample temperature should be at or below ambient temperature.

Test Procedure

1. To remove trapped air bubbles in flowing samples, the system should be purged with water that is flowing at the fastest possible rate, and has a temperature of 180 - 210°F (80 - 100°C). New sampling systems should be purged for several hours, while those used routinely may require only a few minutes. **When the system is fully purged, reduce the flow to 500 - 1000 mL per minute and cool the sample to ambient temperature.**

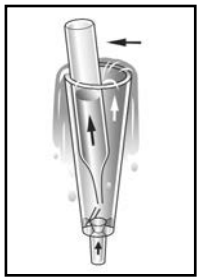

Figure 1

2. Place the CHEMet ampoule, tip first, into the sampling tube or sample cup. Snap the tip. The ampoule will fill leaving a bubble for mixing (fig. 1).
3. Gently invert the ampoule several times, allowing the bubble to travel from end to end.
4. Dry the ampoule. Test results should be obtained within **30 seconds.**
5. Obtain a test result by placing the ampoule between the color standards until the best color match is found (fig. 2).

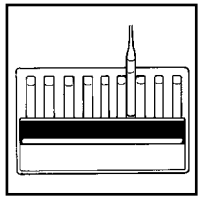

Figure 2

Test Method

The Oxygen CHEMets®[1] test kit employs the Rhodazine D™ Method.[2,3,4,5] Dissolved oxygen reacts with the pale yellow colored leuco form of Rhodazine D to produce a deep rose color. The resulting color is proportional to the dissolved oxygen concentration in the sample.

1. CHEMets is a registered trademark of CHEMetrics, Inc. U.S. Patent No. 3,634,038
2. Rhodazine D methodology was developed by and is a trademark of CHEMetrics, Inc.
3. ASTM D 5543 - 15, Low Level Dissolved Oxygen in Water
4. ASTM Power Plant Manual, 1st ed., p. 169 (1984)
5. Department of the Navy, Final Report of NAVSECPHILADIV Project A-1598; Evaluation of CHEMetrics Feedwater Dissolved Oxygen Test Kit (1975)

Safety Information

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

Visit www.chemetrics.com to view product demonstration videos.
Always follow the test procedure above to perform a test.

CHEMetrics
Simplicity in Water Analysis

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