Filming Amine CHEMets® Kit

K-1001/R-1000: 0 - 1 ppm

Sample Temperature

Sample temperatures that deviate significantly from 20°C (68°F) may introduce test result bias.

Test Procedure

1. Rinse the reaction tube with the sample to be tested, and then fill it to the 10 mL mark with the sample.
2. While holding the double-tipped ampoule in a vertical position, snap the upper tip using the tip breaking tool (fig. 1).
3. Invert the ampoule and position the open end over the reaction tube. Snap the upper tip and allow the contents to drain into the reaction tube (fig. 1).
4. Cap the reaction tube and shake it vigorously for **1 minute**. Allow the tube to stand undisturbed for **1 minute**.
5. Place a piece of the flexible tubing firmly on to the CHEMet ampoule tip.
6. Insert the CHEMet assembly (tubing first) into the reaction tube making sure that the end of the flexible tubing is at the bottom of the tube. Break the tip of the CHEMet ampoule by gently pressing it against the side of the reaction tube (fig. 2). The ampoule should draw in fluid only from the organic phase (bottom layer).
7. When filling is complete, remove the CHEMet assembly from the reaction tube.
8. Remove the flexible tubing from the CHEMet ampoule. Dry the ampoule, then place a cap firmly onto the ampoule tip. Invert the ampoule several times, allowing the bubble to travel from end to end.

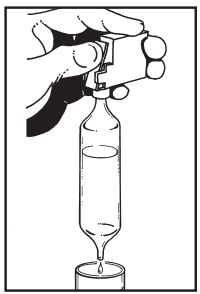

Figure 1

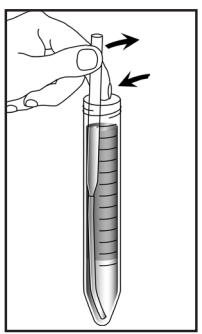

Figure 2

9. Obtain a test result by placing the ampoule, flat end first, into the comparator. Hold the comparator up toward a source of light and view from the bottom. Rotate the comparator until the best color match is found (fig. 3).

Figure 3

Tip Breaker

The tip breaker opens for easy disposal of the glass tips (pull lever away from body of tip breaker or pull open the side wall). The tip breaker will work most effectively if the tips are emptied out frequently.

Test Method

The Filming Amine CHEMets®[1] test kit employs the methyl orange extraction method[2]. Filming amine reacts with methyl orange to form a colored complex that is extracted into an immiscible organic solvent. The intensity of the resulting yellow color is directly related to the concentration of "filming amine" in the sample. Test results are expressed in ppm (mg/Liter) octadecylamine.

1. CHEMets is a registered trademark of AquaPhoenix Scientific, LLC. U.S. Patent No. 3,634,038
2. ASTM D 2327 - 80, Mono- and Dioctadecylamines in Water

Sampling

Sampling technique is critical. Samples should be **cooled** to prevent flashing. Sample lines should be flushed thoroughly before sampling. Sampling points should be representative of the system. Filming amines will attach to the surfaces of sample containers. For best accuracy, clean the reaction tube and cap between uses with a solution of 10% nitric acid and then rinse thoroughly with distilled water. Sample directly into the clean reaction tube.

Safety Information

Read SDS before performing this test procedure. Wear safety glasses and protective gloves.

Feb. 25, Rev. 11