

Filming Amine

Range(s): 0–8.0 ppm ODA (Octadecylamine), 0–8.0 ppm OA (Oleylamine), 0–5.0 ppm ODAP (N-Oleyl-1,3-diaminopropane)



Procedure

Note: When testing multiple samples simultaneously, a separate sample cell with an unreacted sample of the water tested must be used to zero the colorimeter. Please note that varying the test procedure from the original can affect the precision of the test.

Note: Glassware that has not been properly cleaned may contaminate the sample and affect test results. Clean glassware thoroughly before and after use with 70% Isopropyl Alcohol (available at local stores); then rinse with DI Water (R-0833) or sample water several times.

1. Turn on the Colorimeter.
2. Select a test menu (ALL TESTS, RECENT TESTS, or FAVORITES) containing Filming Amine ODA 8 or alternative filming amine test (Filming Amine OA 8, or Filming Amine ODAP 5) using ◀▶.

3. Select appropriate filming amine test using ▲▼; then press ENTER Ⓞ.
4. Rinse and fill 25 mm sample cell to 10 mL mark with sample; then cap.
5. Insert sample cell into sample cell compartment. Align marks per User's Manual.
6. Select ZERO using ◀▶; then press ENTER Ⓞ. Zero will be displayed.
7. Remove sample cell from sample cell compartment; then remove cap.
8. Add 0.5 mL Filming Amine - Reagent A; then swirl to mix.
9. Add 0.5 mL Filming Amine - Reagent B; then cap and swirl to mix thoroughly.
10. Insert sample cell into sample cell compartment. Align marks.

11. Select TIMER using ◀▶; then press ENTER Ⓞ.
12. Select START using ◀▶; then press ENTER Ⓞ. (A 2-minute [02:00] countdown will begin.) Immediately select AUTO using ◀▶; then press ENTER Ⓞ.
13. When the timer beeps, the instrument will read the sample and the result will be displayed.

Filming Amine	Alternate Name	CAS Number
ODA (Octadecylamine)	Stearylamine	124-30-1
OA (Oleylamine)	(Z)-Octadec-9-enylamine	112-90-3
ODAP (N-Oleyl-1,3-diaminopropane)	(Z)-N-9-Octadecenylpropane-1,3-diamine	7173-62-8

Interferences

Alkalinity \geq 400 ppm – positive interference
 To remove interference: Add 1 drop of Hydrochloric Acid 3N (R-0737) for every 200 ppm of Total Alkalinity above the stated interference amount.

Polyphosphate, all levels – negative interference

Quats, all levels – positive interference

The following analytes were tested up to the levels listed and found not to cause any interference up to the specified values:

Chloride – 1000 ppm
 Copper – 5 ppm
 EDTA – 20 ppm
 Iron, Ferric – 10 ppm
 Iron, Ferrous – 10 ppm

Molybdate – 50 ppm
 Phosphate – 100 ppm
 Phosphonate – 50 ppm
 Polymer (PAA) – 1000 ppm
 Silica – 50 ppm
 Sulfate – 500 ppm
 Sulfite – 100 ppm

Test Method

Rose Bengal

At an acidic pH, filming amines react with rose bengal to produce a pink color that is proportional to the concentration of filming amines in a sample.

**Estimated
Detection Limit**

0.3 ppm ODA
0.3 ppm OA
0.2 ppm ODAP

Precision

Using a single lot of reagent and a standard solution of 4.0 ppm OA, an individual analyst obtained a standard deviation of ± 0.3 ppm OA.

Application

Industrial Water

Ordering Info

Reagent Pack

K-8045 Filming Amine

Formulated for exclusive use with Taylor's TTI® Colorimeter.

Reagent Pack Components

R-8045A Filming Amine - Reagent A

R-8045B Filming Amine - Reagent B

Optional Reagents & Accessories

R-0737 Hydrochloric Acid 3N

R-0833 DI Water