2-Propanol

There are many chemicals that can accumulate hazardous levels of peroxides simply on storage after exposure to air, heat, light, etc. Recently, the New York City Fire Inspector has targeted 2-propanol (Isopropanol) as a common peroxide-forming chemical, which must be dated once opened. The New York City Fire Inspector has been writing Violation Orders for opened, undated bottles and bottles older than 2 years. Bottles older than 12 months must be tested for peroxides and bottles older than 2 years must be disposed through Environmental Health and Safety (EH&S).

Peroxide Test Strips:
Although there are other test methods, the recommended way to test for peroxides is through semi-quantitative analysis using peroxide detection dip strips, which are available from Fisher Scientific (cat# M100811). If the test strip indicates a concentration above 10 ppm, 2-propanol (Isopropanol) cannot be used, and you must submit a Hazardous Waste Pick Up Form to (EH&S). Chemicals that show no peroxides should be retested every 3 months with the results of each test recorded on the bottle.

Do not test or treat any peroxide-forming chemicals if:
- the age of the chemical is undetermined,
- there are visible crystals, and a precipitate or oily viscous layer is present.

NEVER use a metal spatula with peroxides. Contamination by metals can lead to explosive decompositions. If the container has been opened but not tested, and is more than two years old, do not open or test the contents of the container. Fill out a Hazardous Waste Pick Up Form and mail it or fax it to EH&S.

In order to avoid receiving violations from the NYC Fire Department, any laboratory containing 2-propanol (Isopropanol) must:
1. Date 2-propanol upon receipt and upon opening.
2. Test it for peroxides and record the information on the bottle if the 2-propanol has been stored for more than one year.
3. Dispose any opened 2-propanol bottle which is older than 2 years.

Avoid the prolonged storage of all peroxide-forming chemicals. These chemicals should be purchased in amounts, which will guarantee they are used within six months to one year. This practice will help to ensure that all peroxide-forming chemicals are used before their expiration date. For a complete list of peroxide-forming chemicals, contact EH&S at X3560.

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