

## Peroxide-Forming Chemicals Information Sheet

Peroxide forming chemicals (PFCs) can pose a serious safety hazard. PFCs are chemicals that can form peroxides as they degrade over time. Shock, heat, and friction can cause the peroxides to unexpectedly explode. The following provides information on how to properly handle, test and dispose of PFCs to reduce the safety hazard.

### Labeling

The PFC container(s) in this package has been labeled with a green PFC label. The label indicates:

- **PFC Class:** Each class of PFC (A, B, C) has specific handling requirements. Class A PFCs are the most hazardous and have the strictest requirements.
- **Date Container Received:** This date is entered upon receipt at EHSS Chemical Receiving.
- **Date Container Opened:** The lab must enter this date when the container is opened.

### Peroxide Testing

Periodic testing of Class B and C PFCs is required. EHSS has attached three (3) peroxide test strips to the PFC container(s) in this package. Please contact EHSS at [ehss@syr.edu](mailto:ehss@syr.edu) if additional test strips are needed.

- **Testing Frequency:** Please use the peroxide test strips to test the PFC at the recommended frequency (also indicated on the PFC label):
  - Class B and C: Every 3 months and prior to concentrating.
  - Class A: Not required but recommended to test before each use.
- **Testing Instructions (Quantofix Peroxide Test Strips)**
  1. Open the PFC container and dip the test strip into the PFC chemical for 1 second.
  2. Compare test strip to the color scale included with the test strips.
  3. Identify which color on the scale most closely matches the color on the test strip.
  4. Record the number (ppm) for the color that most closely matches the test strip on the green PFC label.
- **Evaluating Testing Results**
  - Results at **0-25 ppm** - Continue to use and periodically test the PFC according to the EHSS PFC label.
  - Results at **>25 ppm** - Do not concentrate. Disposal is recommended.
  - Results at **≥100 ppm** - Do not use. Contact EHSS for immediate disposal.

### Handling, Use and Disposal

- Consult the manufacturers Safety Data Sheet prior to use.
- Record the date the PFC is first opened on the container's green PFC label.
- Prior to each use, visually inspect PFCs for signs of discoloration, crystallization, or the formation of a surface crust. Do not open or move PFCs that exhibit unusual visual characteristics. Contact EHSS for disposal.
- Prior to each use, confirm the PFC has not exceeded the manufacturer expiration date or University disposal timelines (based on NIH guidance) listed below. If the chemical is expired, contact EHSS for disposal.
  - Class A PFCs:** Dispose of by the manufacturer's expiration date, or 3 months after the date received.
  - Class B and C PFCs:** Dispose of by the manufacturer's expiration date, or 12 months after date received.

Additional information can be found on the EHSS website or by contacting [ehss@syr.edu](mailto:ehss@syr.edu) or 315.443.4132