**Best Management Practice**
**Environmental Fact Sheet**

# Peroxide Forming Agents

| | |
|---|---|
| Audience: | University of Connecticut Laboratories |
| Campus Covered: | All |
| EHS Contact: | Denis Shannon 6-3613 |
| Reg. Citations: | University of Connecticut Policy |
| Last Revised: | September 2001 |

---

Peroxides are explosives and are very sensitive to shock and heat. A variety of organic compounds react with oxygen to form unstable peroxides. Well known peroxide-forming agents include:

- Diethyl Ether
- Tetrahydrofuran
- Isopropyl Ether Dioxanes
- Petroleum Ether is not peroxidizable)
- Other peroxide-forming agents include:
- Aldehydes
- Compounds with benzylic hydrogens
- Compounds with allyl groups

Exposure of any of the peroxide-forming agents to light or air increases the rate of peroxide formation. Order small amounts frequently to decrease storage time. DATE ALL NEW CONTAINERS WHEN OPENED. Refrigeration does not prevent peroxide formation and, unless the refrigerator used is explosion-proof, these materials should not be refrigerated.

Be particularly cautious with materials of unknown origin. Do not attempt to remove caps from container that may cause sparks or excess friction (e.g. old metal cans or fitted glass stoppers.) Call Environmental Health and Safety when such containers are found.

NEVER distill peroxide-forming solvents UNLESS they are known to be free of peroxides. Peroxides concentrated in the residue can pose a serious explosion hazard. Other precautions for handling reactive chemicals can be requested from the Department of Environmental Health & Safety.