

## GENERAL WRITTEN SOP – Peroxidizables

*The OSHA Laboratory Standard explicitly requires "standard operating procedures relevant to safety and health considerations to be followed when laboratory work involves the use of hazardous chemicals." If the general SOP in this section do not fulfill this requirement, you must amend and append in some manner so as to comply.*

**Special Precautions for Working with Peroxidizables:** *Peroxidizables are substances or mixtures which react with oxygen to form peroxides. Some peroxides can explode with impact, heat, or friction such as that caused by removing a lid. Peroxides form inside the containers of some materials even if they have not been opened. Examples include ethyl ether, tetrahydrofuran, liquid paraffins (alkanes), and olefins (alkenes). See Appendix B for additional materials which may form peroxides. Precautions are given below.*

- 1) Date all peroxidizables upon receipt and upon opening. Unless an inhibitor has been added by the manufacturer, materials should be properly disposed of after 12 months from date of receipt or 3 months from date of opening.
- 2) Test all peroxide forming materials at least every three months.
- 3) Test prior to distillation or purification regardless of the material's age.
- 4) Do not handle or open any peroxide forming material that appears suspicious (crystal formation around the lid, viscous, oily).
- 5) Inform your instructor (supervisor, principal investigator) and colleagues in the work area immediately about the hazard.
- 6) Isolate the cabinet or area and post the following label:

**“DO NOT HANDLE! DANGEROUS PEROXIDE FORMING MATERIAL!”**

Contact the Laboratory Safety Manager (953-1067) and EHS (953-4816) promptly for proper disposal and further instructions.

- 7) Other special precautions are similar to those used for flammables.