

## PEROXIDE FORMERS

The below is quoted from The CRC Handbook of Chemistry and Physics, Internet Version 2019 100<sup>th</sup> Print Edition, 2019, <http://www.hbcpnbase.com/> (accessed April 2020). Note that the easiest way to test for peroxides is with commercially available peroxide test strips/sticks.

Because some compounds form peroxides more easily or faster than others, prudent practices require testing the supply on hand in the laboratory on a periodic basis. The following list provides guidelines on test scheduling. The peroxide hazard of the compounds listed in Group 1 is on the basis of time in storage. The compounds in Group 2 present a peroxide hazard primarily due to concentration, mainly by evaporation of the liquid. The compounds listed in Group 3 are hazardous because of the potential of peroxide-initiated polymerization. When stored as liquids, the peroxide formation may increase, and therefore these compounds should be treated as Group 1 peroxidizable compounds.

### Group 1

(Test Every 3 Months)

- Divinyl acetylene
- Isopropyl ether
- Potassium
- Sodium amide
- Vinylidene chloride

### Group 2

(Test Every 6 Months)

- Acetal
- Cumene
- Cyclohexene
- Diacetylene
- Dicyclopentadiene
- Diethyl ether
- Dimethyl ether
- 1,4-Dioxane
- Ethylene glycol dimethyl ether (glyme)
- Methyl acetylene
- Methyl isobutyl ketone
- Methyl cyclopentane
- Tetrahydrofuran
- Tetrahydronaphthalene (tetralin)
- Vinyl ethers

### Group 3

(Test Every 12 Months)

- Acrylic acid
- Acrylonitrile
- Butadiene
- Chloroprene
- Chlorotrifluoroethene
- Methyl methacrylate
- Styrene
- Tetrafluoroethylene
- Vinyl acetate
- Vinyl acetylene
- Vinyl chloride
- Vinyl pyridine