

| <b>List A: Chemicals that form explosive levels of peroxides without concentration (3 months)<sup>1</sup></b>     |  |   |
|---|--|---|
| Butadiene <sup>2</sup> (106-99-0)   | Isopropyl Ether (108-20-3)                           | Tetrafluoroethylene <sup>2</sup> (116-14-3) |
| Chloroprene <sup>2</sup> (126-99-8)   | Potassium Metal (7440-09-7)                          | Vinylidene Chloride (75-35-4)               |
| Divinyl Acetylene (821-08-9)  | Sodium Amide (7782-92-5)                             |   |
| <b>List B: Chemicals that form explosive levels of peroxides on concentration (12 months)<sup>1</sup></b>         |  |   |
| 1,1-Dimethoxymethane (109-87-5)   | Benzyl alcohol (100-51-6)                            | Di-n-propoxymethane (505-84-0)              |
| 1,2-Epoxy-3-isopropoxy propane (4016-14-2)  | Benzyl n-butyl Ether (588-67-0)                      | Dioxane (123-91-1)                          |
| 1,2-Dibenzoyloxyethane (622-22-0)   | Benzyl Ether (103-50-4)                              | Diethyl Ether (60-29-7)                     |
| 1-Phenylethanol (98-85-1)   | Benzyl Ethyl Ether (539-30-0)                        | Ethylene Glycol Dimethyl Ether (110-71-4)   |
| 2-Butanol (78-92-2)   | Benzyl 1-naphthyl Ether (607-58-9)                   | Isoamyl Ether (544-01-4)                    |
| 2-Hexanol (626-93-7)  | Cumene (98-82-8)                                     | Isophorone (78-59-1)                        |
| 2-Methyl-1-butanol (137-32-6)   | Cyclohexene (110-83-8)                               | Methyl Isobutyl Ketone (108-10-1)           |
| 2-Penten-1-ol (1576-95-0)   | Cyclooctane (292-64-8)                               | Methyl Acetylene (74-99-7)                  |
| 2-Phenylethanol (60-12-8)   | Decahydronaphthalene (91-17-8)                       | Methylcyclopentane (96-37-7)                |
| 2-Propanol (67-63-0)  | Diacetylene (460-12-8)                               | Other secondary alcohols (N/A)              |
| 4-Heptanol (589-55-9)   | Diallyl Ether (557-40-4)                             | p-Dibenzoyloxybenzene (621-91-0)            |
| 4-Methyl-2-pentanol (108-11-2)  | Dicyclopentadiene (77-73-6)                          | p-Isopropoxypropionitrile (110-47-4)        |
| 4-Penten-1-ol (821-09-0)  | Diethoxymethane (462-95-3)                           | Tetrahydrofuran (109-99-9)                  |
| Acetal (105-57-7)   | Diethyl acetal isoamyl benzyl ether (N/A)            | Tetrahydronaphthalene (119-64-2)            |
| Acetaldehyde (75-07-0)  | Diethylene Glycoldimethyl Ether (diglyme) (111-96-6) | Vinyl Ethers (N/A)                          |
| Allyl Ether (557-40-4)  | Dimethoxymethane (109-87-5)                          |   |
| <b>List C: Chemicals that may autopolymerize as a result of peroxide accumulation (12 months)<sup>1,3,4</sup></b> |  |   |
| Acrylic Acid (79-10-7)  | Methyl Methacrylate (80-62-6)                        | Vinyl Chloride (75-01-4)                    |
| Acrylonitrile (107-13-1)  | Styrene (100-42-5)                                   | Vinylidene chloride (75-35-4)               |
| Butadiene <sup>2</sup> (106-99-0)   | Tetrafluoroethylene <sup>2</sup> (116-14-3)          | 2-Vinyl Pyridine (100-69-6)                 |
| Chloroprene <sup>2</sup> (126-99-8)   | Vinyl Acetate (108-05-4)                             | 4-Vinyl Pyridine (100-43-6)                 |
| Chlorotrifluoroethylene (79-38-9)   | Vinyl Acetylene (689-97-4)                           |   |

- Safe storage periods are given for an open container of each class of peroxidizable material. Unopened containers from the manufacturer have a safe storage period of 12 months.
- When stored in liquid form these chemicals may form explosive levels of peroxides without concentration. When stored as a gas, these chemicals may autopolymerize as a result of peroxide accumulation.
- If chemical from List C is inhibited, do not store under an inert atmosphere. Oxygen is required for inhibitor to function.
- Uninhibited chemicals from List C have a safe storage period of 24 hours.

**List D: Other Time Sensitive Chemicals (varies)<sup>5</sup>**

|                                  |                                   |                                   |
|----------------------------------|-----------------------------------|-----------------------------------|
| Acetylene (74-86-2)              | Ethylene oxide (75-21-8)          | Nitrogen triiodide (13444-85-4)   |
| Ammonium Nitrate (6484-52-2)     | Germanium (7440-56-4)             | Nitrogen trichloride (10025-85-1) |
| Ammonium Perchlorate (7790-98-9) | Hexanitrodiphenylamine (131-73-7) | Nitroglycerin (55-63-0)           |
| Ammonium Picrate (131-74-8)      | Hexanitrostilbene (20062-22-0)    | Nitroglycol (628-96-6)            |
| Calcium Nitrate (10124-37-5)     | Hydrazine (302-01-2)              | Nitroguanidine (556-88-7)         |
| Chloroform (67-66-3)             | Hydrazoic acid (7782-79-8)        | Nitrourea (556-89-8)              |
| Dinitrotoluene (121-14-2)        | Hydrogen Compound Gases (NA)      | Perchloric acid (7601-90-3)       |
| Dinitrophenol (51-28-5)          | Lead styphnate (15245-44-0)       | Picric acid (88-89-1)             |

5. Please refer to the Time Sensitive Chemicals policy for more details on safe storage and shelf life.