

| List A—Chemicals that may form explosive levels of peroxides without concentration by evaporation or distillation. These materials are particularly dangerous because they can be hazardous even if never opened. | CAS | Synonyms |
|--|------------|-------------------------|
| Butadiene | 106-99-0 | 1,3-Butadiene |
| Chloroprene | 126-99-8 | 2-Chloro-1,3- butadiene |
| Divinylacetylene | 821-08-9 | 1,5-Hexadien- 3-yne |
| Isopropyl ether | 108-20-3 | |
| Tetrafluoroethylene | 116-14-3 | |
| Vinylidene Chloride | 75-35-4 | 1,1- Dichloroethylene |

| List B—Chemicals that form explosive levels of peroxides on concentration. They typically accumulate hazardous levels of peroxides only when evaporated, distilled or otherwise treated to concentrate the peroxides (e.g. deactivation or removal of peroxide inhibitors). Therefore, they have the potential of becoming far more hazardous after they are opened. | CAS | Synonyms |
|---|------------|-----------------------------|
| Acetal | 105-57-7 | |
| Acetaldehyde | 75-07-0 | |
| Benzyl alcohol | 100-51-6 | |
| 2-Butanol | 78-92-2 | |
| Cumene | 98-82-8 | Isopropyl benzene |
| Cyclohexanol | 108-93-0 | |
| 2-Cyclohexen-1-ol | 822-67-3 | |
| Cyclohexene | 110-83-8 | |
| Decahydronaphthalene | 91-17-8 | |
| Diacetylene | 460-12-8 | |
| Dicyclopentadiene | 77-73-6 | |
| Diethyl ether | 60-29-7 | Ethyl ether |
| Diglyme | 111-96-6 | dimethyl ether |
| Dioxanes | 123-91-1 | 1,4-Dioxane |
| Glyme | 110-71-4 | dimethyl ether |
| 4-Heptanol | 589-55-9 | 4-Heptanol |
| 2-Hexanol | 626-93-7 | |
| Methylacetylene | 74-99-7 | Propyne |
| 3-Methyl-1-butanol | 123-51-3 | Isoamyl alcohol |
| Methylcyclopentane | 96-37-7 | |
| Methyl isobutyl ketone | 108-10-1 | Methyl-i-butyl ketone |
| 4-Methyl-2-pentanol | 108-11-2 | |
| 2-Pentanol | 6032-29-7 | |
| 4-Penten-1-ol | 821-09-0 | |
| 1-Phenylethanol | 98-85-1 | alpha-Methyl-benzyl alcohol |
| 2-Phenylethanol | 60-12-8 | Phenethyl alcohol |
| 2-Propanol | 109-99-9 | |
| Tetrahydrofuran | 119-64-2 | |
| Tetrahydronaphthalene | | |
| Vinyl ethers | | |
| Other secondary alcohols | | |

| List C—Chemicals that may autopolymerize as a result of peroxide accumulation. These chemicals have been associated with hazardous polymerization reactions that are initiated by peroxides which have accumulated in solution. These materials are typically stored with polymerization inhibitors to prevent these dangerous reactions. | CAS | Synonyms |
|--|------------|------------------------|
| Acrylic acid | 79-10-7 | |
| Acrylonitrile | 107-13-1 | |
| Butadiene | 106-99-0 | |
| Chloroprene | 126-99-8 | 2-Chloro-1,3-butadiene |
| Chlorotrifluoroethylene | 79-38-9 | |
| Methyl methacrylate | 80-62-6 | |
| Styrene | 100-42-5 | |
| Tetrafluoroethylene | 116-14-3 | |
| Vinyl acetate | 108-05-4 | |
| Vinylacetylene | 689-97-4 | Buten-3-yne |
| Vinyl chloride | 75-01-4 | Mono-chloroethylene |
| 2-Vinyl pyridine | 100-69-6 | |
| 4-Vinyl pyridine | 100-43-6 | |
| Vinylidene chloride | 75-35-4 | 1,1-Dichloroethylene |

| List D represents other peroxidizable chemicals which can not be placed into the other categories but nevertheless require handling with precautions. | CAS |
|---|------------|
| Acrolein | 107-02-8 |
| Allyl ether | 557-40-4 |
| Allyl ethyl ether | 537-31-3 |
| Allyl phenyl ether | 1746-13-0 |
| p-(n-Amyloxy)benzoyl chloride | 36823-84-4 |
| n-Amyl ether | 693-65-2 |
| Benzyl n-butyl ether | 3459-80-1 |
| Benzyl ether | 103-50-4 |
| Benzyl ethyl ether | 539-30-01 |
| Benzyl methyl ether | 558-86-3 |
| Benzyl-1-naphthyl ether | 613-62-7 |
| 1,2-Bis(2-chloroethoxy)ethane | 112-26-5 |
| Bis(2-ethoxyethyl)ether | 112-36-7 |
| Bis(2-(methoxyethoxy)ethyl) ether | 143-24-8 |
| Bis(2-chloroethyl) ether | 111-44-4 |
| Bis(2-ethoxyethyl) adipate | 109-44-4 |
| Bis(2-methoxyethyl) carbonate | |
| Bis(2-methoxyethyl) ether | 119-96-6 |
| Bis(2-methoxyethyl) phthalate | 117-82-8 |
| Bis(2-methoxymethyl) adipate | 106-06-3 |
| Bis(2-n-butoxyethyl) phthalate | 117-83-9 |
| Bis(2-phenoxyethyl) ether | 622-87-7 |
| Bis(4-chlorobutyl) ether | 6334-96-9 |
| Bis(chloromethyl) ether | 542-88-1 |
| 2-Bromomethyl ethyl ether | 13057-17-5 |
| beta-Bromophenetole | 596-10-6 |
| o-Bromophenetole | 593-19-7 |
| p-Bromophenetole | 588-96-5 |
| 3-Bromopropyl phenyl ether | 588-63-6 |
| 1,3-Butadiyne | 460-12-8 |
| Buten-3-yne | 689-97-4 |
| tert-Butyl ethyl ether | 637-92-3 |
| tert-Butyl methyl ether | 16634-04-0 |
| n-Butyl phenyl ether | 1126-79-0 |
| n-Butyl vinyl ether | 11-34-2 |
| Chloroacetaldehyde diethylacetal | 621-62-5 |
| 2-Chlorobutadiene | 126-99-8 |
| 1-(2-Chloroethoxy)-2-phenoxyethane | 2243-49-91 |
| Chloroethylene | 75-01-4 |
| Chloromethyl methyl ether | 107-30-2 |
| b-Chlorophenetole | 614-72-2 |
| o-Chlorophenetole | 143-24-8 |
| p-Chlorophenetole | 622-61-7 |
| Cyclooctene | 931-88-4 |
| Cyclopropyl methyl ether | 540-47-6 |
| Diallyl ether | 557-40-4 |
| p-Di-n-butoxybenzene | 75942-37-9 |
| 1,2-Dibenzoyloxyethane | |
| p-Dibenzoyloxybenzene | |
| 1,2-Dichloroethyl ethyl ether | 623-46-1 |
| 2,4-Dichlorophenetole | 5392-86-9 |
| Diethoxymethane | 462-95-3 |
| 2,2-Diethoxypropane | 126-84-1 |
| Diethyl ethoxymethylenemalonate | 87-13-8 |
| Diethyl fumarate | 623-91-6 |
| Diethyl acetal | 105-57-7 |
| Diethylketene | 96-22-0 |
| m,o,p-Diethoxybenzene | 2168-54-9 |
| 1,2-Diethoxyethane | 629-14-1 |
| Dimethoxymethane | 109-87-5 |
| 1,1-Dimethoxyethane | 534-15-6 |
| Dimethylketene | |
| 3,3-Dimethoxypropene | 6044-68-4 |
| 2,4-Dinitrophenetole | 610-54-8 |

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|---|------------|
| 1,3-Dioxepane | 505-65-7 |
| Di(1-propynyl) ether | 111-43-4 |
| Di(2-propynyl) ether | |
| Di-n-propoxymethane | 505-84-0 |
| 1,2-Epoxy-3-isopropoxypropane | 4016-14-2 |
| 1,2-Epoxy-3-phenoxypropane | 122-60-1 |
| p-Ethoxyacetophenone 2-Methoxyethyl vinyl ether | 11676-63-7 |
| 1-(2-Ethoxyethoxy)ethyl acetate | |
| 2-Ethoxyethyl acetate | 111-15-9 |
| (2-Ethoxyethyl)-a-benzoyl benzoate | |
| 1-Ethoxynaphthalene | 5328-01-8 |
| o,p-Ethoxyphenyl isocyanate | 5395-71-1 |
| 1-Ethoxy-2-propyne | |
| 3-Ethoxypropionitrile | 2141-62-0 |
| 2-Ethylacrylaldehyde oxime | |
| 2-Ethylbutanol | 97-75-0 |
| Ethyl-b-ethoxypropionate | 763-69-9 |
| 2-Ethylhexanal | 123-05-7 |
| Ethyl vinyl ether | 109-92-2 |
| Furan | 110-100-9 |
| 2,5-Hexadiyn-1-ol | |
| 4,5-Hexadien-2-yn-1-ol | |
| n-Hexyl ether | 112-58-3 |
| o,p-Iodophenetole | |
| Isoamyl benzyl ether | 109-53-5 |
| Isoamyl ether | 544-01-4 |
| Isobutyl vinyl ether | 109-53-5 |
| Isophorone | 78-59-1 |
| b-Isopropoxypropionitrile | |
| Isopropyl-2,4,5-trichlorophenoxy acetate | |
| Limonene | |
| 1,5-p-Methadiene | |
| Methyl-p-(n-amyloxy)benzoate | |
| 4-Methyl-2-pentanone | |
| n-Methylphenetole | 202-507-4 |
| 2-Methyltetrahydrofuran | 4435-53-4 |
| 3-Methoxy-1-butyl acetate | 109-86-4 |
| 2-Methoxyethanol | 110-49-6 |
| 3-Methoxyethyl acetate | |
| 2-Methoxyethyl vinyl ether | 111-96-6 |
| Methoxy-1,3,5,7-cyclooctatetraene | |
| b-Methoxypropionitrile | 110-67-8 |
| m-Nitrophenetole | |
| 1-Octene | 203-893-7 |
| Oxybis(2-ethyl acetate) | |
| Oxybis(2-ethyl benzoate) | |
| b,b-Oxydipropionitrile | |
| 1-Pentene | 203-694-5 |
| Phenoxyacetyl chloride | 211-862-4 |
| a-Phenoxypropionyl chloride | 122-35-0 |
| Phenyl-o-propyl ether | |
| p-Phenylphenetone | |
| n-Propyl ether | 111-43-7 |
| n-Propyl isopropyl ether | |
| Sodium 8-11-14-eicosatetraenoate | |
| Sodium ethoxyacetylde | 73506-39-5 |
| Tetrahydropyran | 142-68-7 |
| Triethylene glycol diacetate | 111-21-7 |
| Triethylene glycol dipropionate | |
| 1,3,3-Trimethoxypropene | 241-547-7 |
| 1,1,2,3-Tetrachloro-1,3-butadiene | 921-09-5 |
| 4-Vinyl cyclohexene | 100-40-3 |
| Vinylene carbonate | 872-36-6 |
| Vinylidene chloride | |