

## APPENDIX C

## INCOMPATIBLE CHEMICALS

<b><u>CHEMICAL</u></b>	<b><u>KEEP OUT OF CONTACT WITH:</u></b>
Acetic acid	Acetaldehyde, ammonium nitrate, chromic acid, nitric acid, hydroxyl compounds, ethylene glycol, perchloric acid, peroxides, permanganates
Acetaldehyde	Acetic acid, acetic anhydride, ammonia (anhydrous)
Acetylene	Chlorine, bromine, copper, fluorine, silver, mercury
Acetone	Concentrated nitric and sulfuric acid mixtures
Acrolein	Aqueous ammonia
Alkali and alkali earth metals	Water, carbon tetrachloride, or other chlorinated hydrocarbons, carbon dioxide, the halogens
Aluminum	Ammonium nitrate, bromates, chlorates, iodates, bromine vapor, carbon disulphide vapor
Ammonia, Anhydrous	Mercury, chlorine, calcium hypochlorite, iodine, bromine, hydrofluoric acid
Ammonium chloride	Self-reacting
Ammonium nitrate	Acids, aluminum metal powder, metal powders, flammable liquids, chlorates, nitrites, sulfur, finely divided organic or combustible materials
Aniline	Nitric acid, hydrogen peroxide
Antimony	Bromine vapor (all halogen vapors)
Arsenic	Any bromate, chlorate, or iodate
Bromine	Same as chlorine: ammonia, acetylene, butadiene, butane, methane, propane (or other petroleum gases), hydrogen, sodium carbon, turpentine, benzene, finely divided metals
Barium	Carbon tetrachloride
Carbon, activated	Calcium hypochlorite, all oxidizing agents

**CHEMICAL****KEEP OUT OF CONTACT WITH:**

Chlorates	Ammonium salts, acids, arsenic, metal powders, sulfur, finely divided organic or combustible material, sulphides
Chromic acid	Acetic acid, naphthalene, camphor, glycerin, turpentine, alcohol, flammable liquids in general
Chlorine	Same as bromine: ammonia, acetylene, butadiene, butane, methane, propane (or other petroleum gases), hydrogen, sodium carbide, turpentine, benzene, finely divided metals
Chlorine dioxide	Ammonia, methane, phosphine, hydrogen sulfide
Chloroform	Disilane
Copper	Acetylene, bromates, chlorates, iodates, hydrogen peroxide
Cumene hydroperoxide	Acids, organic or inorganic
Disilane	Chloroform, carbon tetrachloride
Flammable liquids	Ammonium nitrate, chromic acid, hydrogen peroxide, nitric acid, sodium peroxide, halogens
Hydrocarbons	Fluorine, chlorine, bromine, chromic acid, sodium peroxide
Hydrocyanic acid	Nitric acid, alkali
Hydrofluoric acid	Ammonia, aqueous or anhydrous
Hydrogen peroxide	Copper, chromium, iron, most metals or their salts, alcohols, acetone, ferrous sulphide, lead IV oxide, lead II oxide, lead sulphide, organic materials, aniline, nitromethane, flammable liquids, oxidizing gases
Hydrogen sulfide	Fuming nitric acid, oxidizing gases
Iodine	Acetylene, ammonia (aqueous or anhydrous), hydrogen acetylene, fulminic acid, ammonia
Maleic anhydride	Magnesium hydroxide, lithium metal
Magnesium metal	Mercury II oxide, nitric acid
Mercury	Acetylene, fulminic acid, ammonia
Methyl alcohol	Lead perchlorate, mercury II nitrate

**CHEMICAL****KEEP OUT OF CONTACT WITH:**

Nitric acid	Acetic acid, aniline, chromic acid, hydrocyanic acid, hydrogen sulfide, flammable liquids, flammable gases, powdered magnesium metal, phosphorus, phthalic acid
Oxalic acid	Silver, mercury
Perchloric acid	Acetic anhydride, aluminum, Bakelite, bismuth and its alloys, alcohol, paper, wood, plastics, nylon (polyamide), modacrylic ester (35-85% acrylonitrile), polyester, Lucite, cellulose-based lacquers, metals, copper and copper alloys, high-nickel alloys, cotton, wool, glycerin-lead oxide
Phosphorus	Mercury II oxide
Potassium	Carbon tetrachloride, carbon dioxide, water, nickel II bromide
Potassium permanganate	Glycerin, ethylene glycol, benzaldehyde, sulfuric acid
Silver	Acetylene, oxalic acid, tartaric acid, ammonium compounds
Sodium	Carbon tetrachloride, carbon dioxide, water
Sodium peroxide	Ethyl or methyl alcohol, glacial acetic acid, acetic anhydride, benzaldehyde, carbon disulfide, glycerin, ethylene glycol, ethyl acetate, methyl acetate, furfural
Sulfuric acid	Potassium chlorate, potassium perchlorate, potassium permanganate (or compounds with similar light metals, such as sodium, lithium, etc.)