

Substance	Incompatibility
Acetic acid	Chromic acid, nitric acid, hydroxyl compounds, ethylene glycol, perchloric acid, peroxides, permanganates, ammonium nitrate
Acetic anhydride	Hydroxyl-containing compounds such as ethylene glycol, perchloric acid
Acetone	Concentrated nitric and sulfuric acid mixtures
Acetaldehyde	Acetic acid, acetic anhydride
Acetylene	Chlorine, bromine, copper, fluorine, silver, mercury
Acrolein	Ammonia(aqueous), any alkali or amine, strong oxidizing agents
Alkali and alkaline earth metals (such as powdered aluminum or magnesium, calcium, lithium, sodium, potassium)	Water, carbon tetrachloride or other chlorinated hydrocarbons, carbon dioxide, halogens
Aluminum metal	Ammonium nitrate, antimony trichloride, bromate
Ammonia (anhydrous)	Mercury (in manometers, for example), chlorine, calcium hypochlorite, iodine, bromine, hydrofluoric acid (anhydrous)
Ammonium nitrate	Acids, powdered metals, flammable liquids, chlorates, nitrites, sulfur, finely divided organic combustible materials
Aniline	Nitric acid, hydrogen peroxide, strong acids, oxidizers
Arsenic materials	Any reducing agent
Azides	Acids
Bromine	Ammonia, acetylene, butadiene, butane, methane, propane (or other petroleum gases), hydrogen, sodium carbide, benzene, finely divided metals, turpentine
Calcium oxide	Water
Carbon (activated)	Calcium hypochlorite, all oxidizing agents
Carbon tetrachloride	Sodium
Chlorates	Ammonium salts, acids, powdered metals, sulfur, finely divided organic or combustible materials

Chromic acid and chromium trioxide	Acetic acid, naphthalene, camphor, glycerol, alcohol, flammable liquids in general
Chlorine	Ammonia, acetylene, butadiene, butane, methane, propane (or other petroleum gases), hydrogen, sodium carbide, benzene, finely divided metals, turpentine
Chlorine dioxide	Chlorine Ammonia, methane, phosphine, hydrogen sulfide
Copper	Acetylene, hydrogen peroxide
Cumene hydroperoxide	Acids (organic or inorganic)
Cyanides	Acids
Flammable liquids	Ammonium nitrate, chromic acid, HCl, hydrogen peroxide, nitric acid, sodium peroxide, halogens
Fluorine	All other chemicals
Hydrazine	Hydrogen peroxide, nitric acid, any other oxidant
Hydrocarbons (such as gasoline, turpentine, butane, propane, benzene)	Fluorine, chlorine, bromine, chromic acid, peroxides, sodium peroxide
Hydrocyanic acid	Nitric acid, alkalis
Hydrofluoric acid (anhydrous), hydrogen fluoride	Ammonia (aqueous or anhydrous)
Hydrogen peroxide	Copper, chromium, iron, most metals or their salts, alcohols, acetone, organic materials, aniline, nitromethane, combustible materials, ferrous sulfide
Hydrogen sulfide	Fuming nitric acid, oxidizing gases
Hypochlorites	Acids, activated carbon
Iodine	Acetylene, ammonia (aqueous or anhydrous), hydrogen
Mercury	Acetylene, fulminic acid*, ammonia
Methanol	Lead perchlorate, mercury nitrate
Nitrates	Sulfuric acid
Nitric acid (concentrated)	Acids: acetic,chromic, hydrocyanic

	<p>Flammable liquids: acetone, alcohol</p> <p>Flammable gases: H₂S</p> <p>Heavy metals: any, copper, brass</p>
Nitrites	Acids
Nitroparaffins	Inorganic bases, amines
Oxalic acid	Silver, mercury and their salts
Oxygen	Oils, grease, hydrogen, flammable liquids, solids or gases
Perchloric acid	Acetic anhydride, bismuth and its alloys, alcohol, paper, wood, grease, oils
Peroxides, organic	Acids (organic or mineral) avoid friction, store cold
Phosphorus (white)	Air, oxygen, alkalis, reducing agents
Phosphorus pentoxide	Alcohols, strong bases, water
Potassium	Carbon tetrachloride, carbon dioxide, water
Potassium chlorate	Sulfuric and other acids, ammonium salts, metal powders, combustibles
Potassium nitrite	Potassium cyanide(if heated)
Potassium perchlorate	Acids, Acetic anhydride, bismuth and its alloys, alcohol, paper, wood, grease, oils
Potassium permanganate	Glycerol, ethylene glycol, benzaldehyde, sulfuric acid
Selenides	Reducing agents
Silver, and Silver salts	Acetylene, oxalic acid, tartaric acid, ammonium compounds, fulminic acid*
Sodium	Water, carbon tetrachloride or other chlorinated hydrocarbons, carbon dioxide, halogens, sulfur
Sodium Azide	Heavy Metals: Lead, Copper
Sodium nitrite	Ammonium nitrate and other ammonium salts

Sodium peroxide	Ethyl or methyl alcohol, glacial acetic acid, acetic anhydride, benzaldehyde, carbon disulfide, glycerin, ethylene glycol, ethyl acetate, methyl acetate, furfural
Sulfides	Acids
Sulfur	Silver Oxide
Sulfuric acid	Chlorates, perchlorates, permanganates and their compounds with potassium/sodium/lithium
Tellurides	Reducing Agents