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C. Incompatible Chemicals Partial Listing

Chemical Incompatible Chemicals

Acetic acid

Chromic acid, nitric acid, permanganates, and peroxides

Acetic anhydride

Hydroxyl containing compounds such as ethylene glycol, perchloric acid

Acetone

Concentrated nitric acid and sulfuric acid mixtures, hydrogen peroxide

Acetylene

Bromine, chlorine, copper, fluorine, mercury, and silver

Alkaline and alkaline earth metals such as powdered calcium, cesium, lithium, magnesium, potassium, sodium, aluminum, etc.

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Cyanides

Acids or alkalies

Flammable liquids

Ammonium nitrate, chromic acid, hydrogen peroxide, nitric acid, sodium peroxide, and the halogens

Fluorine

Most materials (isolate from everything)

Hydrocarbons such as benzene, butane, gasoline, propane, turpentine, etc.

Bromine, chlorine, chromic acid, fluorine, hydrogen peroxide, and sodium peroxide

Hydrofluoric acid or anhydrous hydrogen fluoride

Ammonia (anhydrous or aqueous)

Hydrocyanic acid or hydrogen cyanide

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Chlorates and perchlorates, nitrates and nitric acid, organic materials, reducing agents, white phosphorous, air or oxygen in addition to others

Phosphorous pentoxide

Organic compounds, water, reducing agents

Picric acid

Ammonia heated with oxides or salts or heavy metals (particularly copper, lead, zinc) and friction with oxidizing agents and reducing agents

Potassium

Air (moisture and/or oxygen) or oxygen

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Sodium peroxide

Acetic acid (glacial), acetic anhydride, alcohols, benzaldehyde, carbon disulfide, ethyl acetate, ethylene glycol, furfural, glycerine, methyl acetate, and other oxidizable substances, powdered metals, water, acids, organic materials

Chemicals Incompatible Chemicals

Sulfur

Any oxidizing materials

Sulfuric acid

Chlorates, perchlorates, permanganates, combustibles

Water

Acetyl chloride, carbides, chromic acid, phosphorous oxychloride, phosphorous pentachloride, sulfuric acid, and sulfur trioxide

Zinc chlorate

Acids or organic materials

Zinc (particularly powder)

Acids or water