

Appendix F

Storage of Chemicals

It is important to avoid storing incompatible chemicals together. In the list below, do not store chemicals in the left column together with chemicals in the right column.

This chemical is . . .	incompatible with this chemical:
I. acids	bases
A. nitric acid	metals, acetic acid sulfuric acid, sulfides, nitrites and other reducing agents, chromic acid and chromate, permanganates, flammable liquids.
B. oxalic acid	silver, mercury
C. sulfuric acid	metals, chlorates, perchlorates, permanganate, nitric acid
II. alkali and alkaline earth metals and their carbides, hydrides, hydroxides, oxides, peroxides	water, acids, halogenated organics oxidizing agents
III. ammonia	halogens, silver, mercury, sodium hypochlorite (bleach)
IV. carbon, activated	oxidizing agents*
V. hydrogen peroxide	metals and their salts
VI. inorganic azides	acids, heavy metals and their salts, oxidizing agents*
VII. inorganic cyanides	acids, strong bases
VIII. inorganic nitrates	acids, metals, nitrites, sulfur
IX. inorganic nitrites	acids, oxidizing agents*
X. inorganic sulfides	acids
XI. organic compounds	oxidizing agents*
A. acetylene and monosubstituted acetylenes (R-CCH)	halogens, Group 11 and 12 metals and their salts
B. organic acyl halides	bases, organic hydroxy compounds
C. organic anhydrides	bases, organic hydroxy compounds
D. organic halogen compounds	aluminum metal
E. organic nitro compounds	strong bases
XII. phosphorus (yellow)	oxygen, oxidizing agents*, strong bases
XIII. phosphorus pentoxide	water
XIV. powdered metals	acids, oxidizing agents*

* Oxidizing agents include chromates, dichromates, chromium (VI) oxide, halogens, hydrogen peroxide and peroxides, nitric acid, nitrates, perchlorates and chlorates, permanganates, and persulfates.

This table was adapted from *Prudent Practices in the Laboratory*, 1995. Additional information on chemical incompatibility and storage patterns is available in the annual *Chemical and Biological Catalog Reference Manual* published by Flinn Scientific, Inc.