

Chemical Storage Guidelines

Class of Chemicals	Recommended Storage Method and Additional Concerns	Common Chemical Examples	Common Incompatibles. (Always Consult SDS)
Flammable Liquids	An approved flammable storage cabinet *Remember: peroxide-forming chemicals must be dated upon delivery and opening (consult Peroxide Forming-Chemical Job Aid)	Ethanol, Methanol, Acetone, Xylene, Toluene, *Diethyl Ether, *Tetrahydrofuran	Oxidizers, reactives, acids, bases
Toxics	In a ventilated, dry, cool area in a chemically resistant secondary container	Chloroform, Cyanides, Heavy Metal Compounds (e.g. Cadmium, Mercury)	Flammable liquids, acids, bases, reactive, oxidizers please consult OH&S for assistance
Corrosive Acids- Inorganic	Store in corrosives cabinet (marked ACID), or on protected shelving and in secondary containment *Do NOT store acids on metal shelving	Hydrochloric Acid, Sulfuric Acid, Phosphoric Acid, Chromic Acid, Nitric Acid	Flammable liquids, flammable solids, bases and oxidizers, organic acids, cyanides, sulfides
Corrosive Acids- Organic	Store in corrosives cabinet, on protected shelving, secondary containment away from inorganic acids *Do NOT store acids on metal shelving	Acetic Acid, Trichloroacetic Acid, Formic Acid	Flammable liquids, flammable solids, bases and oxidizers, inorganic acids, cyanides, sulfides
Corrosive- Bases- Inorganic	Store in corrosives cabinet, or on protected shelving away from acids	Ammonium Hydroxide, Potassium Hydroxide, Sodium Hydroxide	Flammable liquids, acids, oxidizers, organic bases
Corrosive Bases-Organic	Store in corrosive cabinet, and separated from acids and inorganic bases	Hydroxylamine, Tetramethylethylamine Diamine, Triethylamine	Acids, oxidizers, hypochlorites, inorganic bases
Flammable Solids	Cool dry area away from oxidizers and corrosives	Carbon, Charcoal, Paraformaldehyde	Acids, bases, oxidizers
Oxidizers	Store in secondary containment with non-combustibles or inorganic material	Perchlorates, Permanganates, Nitrates	Flammables, combustibles and organic materials
Water Reactive	Store in a cool dry location. Protect from fire sprinkler system and sources of water. Label area for water-reactive storage	Sodium, Lithium, and Potassium Metals, Sodium Borohydride	Aqueous solutions, oxidizers, water sources. Please consult OH&S, and SDS for specific information
Explosives	Store in a secure location away from other chemicals, store in areas away from shock or friction	Trinitrophenol, Picric Acid, Diazoisobutylnitrile	Please consult the SDS and OH&S.
General Stock Chemicals	Storage on laboratory benches, or shelves with like chemicals	Sodium bicarbonate, Agar, Salt buffer	See chemical-specific SDS

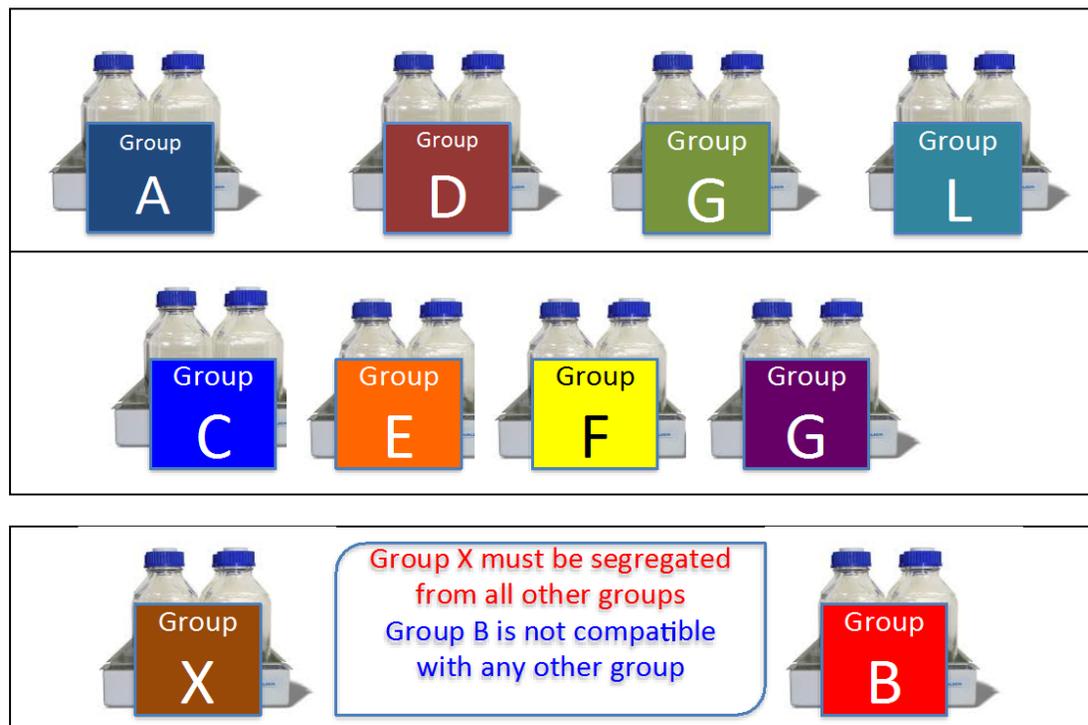
"Sax's Dangerous Properties of Industrial Materials", eighth edition, 1992, Richard J. Lewis, Sr. editor, Van Nostrand Reinhold, New York, New York.

"Handbook of Toxic and Hazardous Chemicals and Carcinogens", third edition, 1991, Marshall Sittig editor, Noyes Publications, Park Ridge, New Jersey.

"Fire Protection Guide to Hazardous Materials", eleventh edition, 1994, National Fire Protection Association, One Batterymarch Park, Quincy, Massachusetts 02269.

Chemical Storage Guidelines

A	Compatible Organic Bases
B	Compatible Pyrophoric & Water Reactive
C	Compatible Inorganic Bases
D	Compatible organic Acids
E	Compatible Oxidizers including Peroxides
F	Compatible Inorganic Acids not including Oxidizers or Combustibles
G	Not Intrinsicly Reactive or Flammable or Combustible
J	Poison Compressed Gas
K	Compatible Explosives or other Highly Unstable Material
L	Non-reactive Flammables and Combustibles including Solvents
X	Incompatible with all other Storage Groups
<p>Storage Groups J, K and X require consultation with OH&S and the safety data sheet (SDS) for specific storage requirements</p>	



If space does not allow Storage Groups to be kept in separate cabinets the above scheme can be used with precautions taken to provide uncrowded and carefully monitored storage

¹National Research Council. *Prudent Practices in the Laboratory: Handling and Management of Chemical Hazards, Updated Version*. Washington, DC: The National Academies Press, 2011.