

Chemical Segregation and Storage Chart

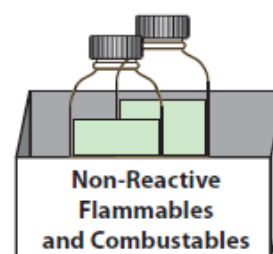
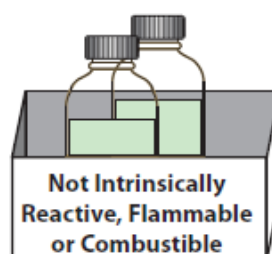
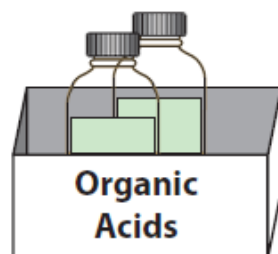
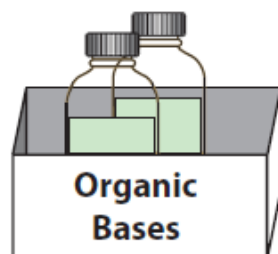
Environmental Health and Safety

CLASS OF CHEMICALS and STORAGE GROUP *	RECOMMENDED STORAGE METHOD	CHEMICAL EXAMPLES	INCOMPATIBLES SEE SDS IN ALL CASES
Compressed Gases - Flammable	Store in a cool, dry area, away from oxidizing gases. Securely strap or chain cylinders to a wall or bench top.	Methane, Acetylene, Propane	Oxidizing and toxic compressed gases, oxidizing solids.
Compressed Gases - Oxidizing	Store in a cool, dry area, away from flammable gases and liquids. Securely strap or chain cylinders to a wall or bench top.	Oxygen, Chlorine, Bromine	Flammable gases.
Compressed Gases - Poisonous	Store in a cool, dry area, away from flammable gases and liquids. Securely strap or chain cylinders to a wall or bench top.	Carbon monoxide, Hydrogen sulfide	Flammable and/or oxidizing gases.
Corrosives - Acids INORGANIC	Store in a separate, lined/protected acid storage cabinet. <i>*DO NOT store acids on metal shelves*</i>	Inorganic (mineral) acids - Hydrochloric acid, Sulfuric acid, Chromic acid, Nitric acid.	Flammable liquids, flammable solids, bases, and oxidizers. Organic acids
Corrosives - Acids ORGANIC	Store in a separate, lined/protected acid storage cabinet. <i>*DO NOT store acids on metal shelves*</i>	Organic acids - Acetic acid, Trichloroacetic acid, Lactic acid	Flammable liquids, flammable solids, bases, and oxidizers. Inorganic acids
Corrosives - Bases	Store in a separate storage cabinet.	Ammonium hydroxide, Potassium hydroxide, Sodium hydroxide	Flammable liquids, oxidizers, poisons, and acids.
Explosives	Store in a secure location away from all other chemicals. Do not store in an area where they can fall.	Ammonium Nitrate, Nitro Urea, Trinitroaniline, Trinitroanisole, Trinitrobenzene, Trinitrophenol/Picric acid, Trinitrotoluene (TNT).	All other chemicals.
Flammable Liquids	Store in a flammable storage cabinet. <i>*Peroxide forming chemicals must be dated upon opening (e.g. Ether, Tetrahydrofuran) and removed for disposal within one year from opening date or following manufacturers recommendations</i>	Acetone, Benzene, Diethyl ether, Methanol, Ethanol, Hexanes, Toluene	Acids, bases, oxidizers, and poisons.
Flammable Solids	Store in a separate dry cool area away from oxidizers, corrosives.	Phosphorus, Carbon, Charcoal	Acids, bases, oxidizers, and poisons.
Water Reactive Chemicals	Store in a dry, cool location. Protect from water and the fire sprinkler system, if applicable. Label location - WATER REACTIVE CHEMICALS	Sodium metal, Potassium metal, Lithium metal, Lithium Aluminium hydride	Separate from all aqueous solutions, and oxidizers.
Oxidizers	Store in a spill tray inside a non-combustible cabinet, separate from flammable and combustible materials.	Sodium hypochlorite, Benzoyl peroxide, Potassium permanganate, Potassium chlorate, Potassium dichromate. The following are generally considered oxidizing substances: Peroxides, Perchlorates, Chlorates, Nitrates	Separate from reducing agents, flammables, and combustibles and organic materials.
Poisons/Toxic	Store separately in a vented, cool, dry, area in chemically resistant secondary containers.	Cyanides, heavy metal compounds, i.e. Cadmium, Mercury, Osmium	Flammable liquids, acids, bases, and oxidizers.
General Chemicals -Non-Reactive	Store on general laboratory benches or shelving.	Agar, Sodium chloride, Sodium bicarbonate, and most non-reactive salts	See SDS

The segregation chart shown above shall be used at all times. Instances may exist where available storage space is limited and best storage practices may not be used. In those instances, refer to the next pages for alternative storage options or contact the Environmental Health and Safety at 773.702-9999. Laboratory research locations should contact the Office of Research Safety for further guidance on chemical segregation at 773.834.2707

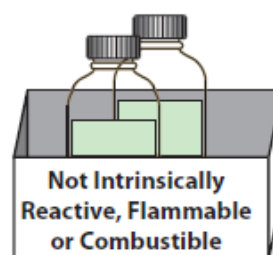
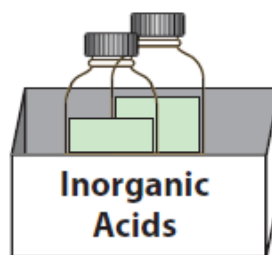
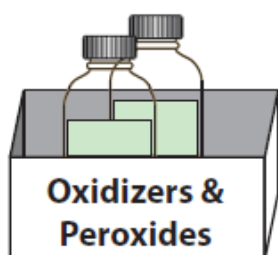
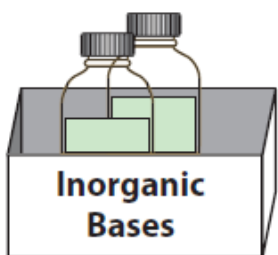
This chart should be used in conjunction with specific storage conditions taken from the manufacturer's label and MSDS

If space does not allow Storage Groups to be kept in separate cabinets the following scheme can be used with extra care taken to provide stable, uncrowded, and carefully monitored conditions using secondary containment



*Flammables in Excess of 10 gallons shall be stored in a flammables liquid cabinet

SHELF 1



*Corrosives in Excess of 10 gallons shall be stored in a corrosives cabinet

SHELF 2

Incompatibles

Hydrogen Peroxide, 30%
Picric Acid Solution (1-4%)
Raney Nickel
Sodium Azide

Chemicals in this group must be segregated from all other chemicals

**Pyrophoric & Water
Reactive Materials**

Not compatible with any other storage group

