INDIANA UNIVERSITY

CHEMICAL SEGREGATION and STORAGE TABLE

CLASS OF CHEMICALS	RECOMMENDED STORAGE METHOD	CHEMICAL EXAMPLES	INCOMPATIBLES SEE MSDS 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. **DO NOT store acids on metal shelves**	**Inorganic (mineral) acids -** Hydrochloric acid, Sulfuric acid, Chromic acid, Nitric acid. *Note: Nitric acid is a strong oxidizer and should be stored by itself. Separate nitric acid from other acids by storing it in a secondary container or a separate acid cabinet.*	Flammable liquids, flammable solids, bases, and oxidizers**.** **Organic acids**
Corrosives – Acids ORGANIC	Store in a separate, lined/protected acid storage cabinet. **DO NOT store acids on metal shelves**	**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, Sodium azide, Trinitroaniline, Trinitroanisole, Trinitrobenzene, Trinitrophenol/Picric acid, Trinitrotoluene (TNT).	All other chemicals.
Flammable Liquids	Store in a flammable storage cabinet. *Note: Peroxide forming chemicals must be dated upon opening, e.g., ether, tetrahydrofuran, dioxane*	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. *Note: The following chemical groups are considered oxidizers: Nitrates, Nitrites, Chromates, Dichromates, Chlorites, Hypochlorites, Chlorates, Perchlorates, Permanganates, Persulfates, Peroxides, Picrates, Bromates, Iodates, Superoxides.*	Separate from reducing agents, flammables, 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. Use upper level shelving for non-hazardous chemicals only.	Agar, Sodium chloride, Sodium bicarbonate, and most non-reactive salts	See MSDS

Questions: Please contact EHS at (812) 855-2004 and ask for a Lab Safety Specialist

This table is available at: www.ehs.iu.edu/doc/lab-safety/chemical-segregation-table.pdf

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