

# Midd Lab Safety

## CHEMICAL SEGREGATION AND STORAGE CHART

CLASS OF CHEMICALS	RECOMMENDED STORAGE METHOD	CHEMICAL EXAMPLES	INCOMPATIBLES SEE SDS IN ALL CASES
<b>Compressed Gases - Flammable</b>	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.
<b>Compressed Gases - Oxidizing</b>	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.
<b>Compressed Gases - Poisonous</b>	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.
<b>Corrosives – Acids INORGANIC</b>	Store in a separate, lined/protected acid storage cabinet. <i>*DO NOT store acids on metal shelves*</i>	<b>Inorganic (mineral) acids</b> - Hydrochloric acid, Sulfuric acid, Chromic acid, Nitric acid. <i>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.</i>	Flammable liquids, flammable solids, bases, oxidizers. <b>Organic acids</b>
<b>Corrosives – Acids ORGANIC</b>	Store in a separate, lined/protected acid storage cabinet. <i>*DO NOT store acids on metal shelves*</i>	<b>Organic acids</b> - Acetic acid, Trichloroacetic acid, Lactic acid	Flammable liquids, flammable solids, bases, and oxidizers. <b>Inorganic acids</b>
<b>Corrosives - Bases</b>	Store in a separate storage cabinet.	Ammonium hydroxide, Potassium hydroxide, Sodium hydroxide	Flammable liquids, oxidizers, poisons acids.
<b>Explosives</b>	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.
<b>Flammable Liquids</b>	Store in a flammable storage cabinet. <i>Note: Peroxide forming chemicals must be dated upon opening, e.g., ether, tetrahydrofuran, dioxane</i>	Acetone, Benzene, Diethyl ether, Methanol, Ethanol, Hexanes, Toluene	Acids, bases, oxidizers poisons.
<b>Flammable Solids</b>	Store in a separate dry cool area away from oxidizers, corrosives.	Phosphorus, Carbon, Charcoal	Acids, bases, oxidizers, and poisons.
<b>Water Reactive Chemicals</b>	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, oxidizers.
<b>Oxidizers</b>	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. <i>Note: The following chemical groups are considered oxidizers: Nitrates, Nitrites, Chromates, Dichromates, Chlorites, Hypochlorites, Chlorates, Perchlorates, Permanganates, Iodates, Persulfates, Peroxides, Picrates, Bromates, Superoxides.</i>	Separate from reducing agents, flammables, combustibles, organic materials.
<b>Poisons/Toxic</b>	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, oxidizers.
<b>General Chemicals Non-Reactive</b>	Store on general laboratory benches or shelving. Use upper shelving for non-hazardous chemicals only.	Agar, Sodium chloride, Sodium bicarbonate, and most non-reactive salts	See MSDS

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