

# Appendix B

## Chemical Segregation

**Table Appendix B**

HAZARD CLASS	RECOMMENDED STORAGE METHOD	EXAMPLES	INCOMPATIBILITIES CHECK SDS/MSDS
<b>Oxidizers</b>	Store inside a noncombustible cabinet, separate from flammable and combustible materials. Store inorganic oxidizers, organic peroxides, separate from each other via secondary containment.	Inorganic oxidizers - Sodium hypochlorite, ammonium nitrate Organic peroxides – methyl ethyl ketone peroxide, allyl compounds, haloalkenes, dienes, monomeric vinyl compounds	Separate from reducing agents, flammables and combustibles
<b>Flammable Liquids</b>	Store in grounded flammable storage cabinet.	Acetone, benzene, methanol, ethanol, toluene	Separate from acids, bases, oxidizers, and poisons.
<b>Flammable Solids</b>	Store in grounded flammable storage cabinet. Flammable solids must be segregated from flammable liquids using secondary containment.	Phosphorus, lithium, sodium, potassium	Separate from acids and oxidizers.
<b>Corrosives Acids</b>	Store in separate acid storage cabinet. Within the acid cabinet store each of the following groups separately via secondary containment: oxidizing acids, flammable (organic) acids, and mineral acids.	Oxidizing acids - nitric acid, perchloric acid, chromic acid, picric acid Flammable and organic acids – glacial acetic acid, trifluoroacetic acid, trichloroacetic acid Mineral acids - Hydrochloric acid, sulfuric acid, phosphoric acid	Separate from flammable liquids, flammable solids, bases, oxidizers.
<b>Corrosives - Bases</b>	Store in separate storage cabinet. Store inorganic bases separate from reducing agents via secondary containment.	Inorganic bases –sodium hydroxide, potassium hydroxide, ammonium hydroxide Reducing agents – Lithium aluminum hydride, sodium borohydride, lithium borohydride	Separate from oxidizers and acids.
<b>General Chemicals Non-reactive</b>	Store on general laboratory benches or shelving preferably below eye level.	Agar, sodium chloride, sodium bicarbonate, and most non-reactive salts	See SDS/MSDS
<b>Water Reactive Chemicals</b>	Store in dry, cool, location, protect from water fire sprinkler. Note: Many water reactive chemicals are flammable solids. If flammable solid, store as such. If not, store separately from all other chemicals.	Sodium metal, potassium metal, lithium metal, lithium aluminum hydride	Separate from all aqueous solutions, and oxidizers.
<b>Poisons (Toxicological Hazard)</b>	If poisons can be categorized as oxidizer, acid, or flammable, store as such. If non-reactive but highly toxic store separately from all other chemicals.	Cyanides, heavy metals compounds (e.g., cadmium, mercury, osmium) methyl iodide, dimethyl sulfate, mercury	Flammable liquids, acids, bases, and oxidizers.