

Chemical Segregation and Storage Table

CHEMICAL CLASS	RECOMMENDED STORAGE METHOD	CHEMICAL EXAMPLES	INCOMPATIBLES Always consult SDS
Flammable Compressed Gases	Store in a cool, dry area, avoid oxidizing gases. Gas cylinders should be strapped (chained) securely to a wall or sturdy bench top	Methane, Acetylene, Propane	Oxidizing and toxic compressed gases
Compressed Gases (oxidizers)	Store in a cool, dry area, separate from flammable gases and liquids. Gas cylinders should be strapped (chained) securely to a wall or sturdy bench top	Oxygen, Chlorine Bromine	Flammable gases
Compressed Gases (Poisonous)	Store in a cool, dry area, separate from flammable gases and liquids. Gas cylinders should be strapped (chained) securely to a wall or sturdy bench top	Carbon monoxide Hydrogen sulfide	Flammable and/or oxidizing gases
Corrosives – Inorganic acids	Store in appropriate acid cabinets. Separate from bases and organic acids. Do not store on metal shelves. Nitric acid (strong oxidizer) should be stored by itself in a secondary container or other acid cabinet if available	Minerals acids (Hydrochloric/sulfuric/Chromic/Nitric).	Flammable liquids, flammable solids, bases and oxidizers. Organic acids.
Corrosives-Organic acids	Store in appropriate acid cabinets. Separate from inorganic acids. Avoid storing on metal shelves	Acetic acid Formic acid Propionic acid	Flammable liquids/ solids Bases, Oxidizers Inorganic acids
Corrosives-Inorganic Bases	Store in appropriate corrosives cabinet separate from acids	Potassium hydroxide, Ammonium hydroxide	Flammable liquids, acids, oxidizers, organic bases
Corrosives-Organic Bases	Store in corrosives cabinet, separated from acids and inorganic bases	Hydroxylamine Tetramethylethylamine Diamine, Triethylamine	Acids Oxidizers Hypochlorites Inorganic bases
Explosives	Store in a secure location away from other chemicals, store in areas away from shock or friction	Trinitrophenol, Picric Acid, Diazoisobutylnitrile Cyclonite	Consult SDS sheets or RMS for chemical and process specific info
Flammable Liquids	An approved flammable storage cabinet Peroxide-forming chemicals must be dated upon delivery and opening (See Peroxide Handling Guidelines on RMS website)	Ethanol, Methanol, Acetone, Xylene, Toluene, Diethyl Ether, Tetrahydrofuran	Acids, bases, oxidizers
Flammable Solids	Cool dry area away from oxidizers and corrosives	Paraformaldehyde	Acids, bases, oxidizers
Water Reactive Chemicals	Store in a cool dry location. Protect from fire Sprinkler system and other sources of water. Label area for water-reactive storage.	Sodium metal Lithium metal Potassium Metal, Metal hydrides Sodium Borohydride	Aqueous solutions, oxidizers, water sources. Consult SDS sheets or RMS for chemical and /or process specific info
Oxidizers	Store in secondary containment with non-combustibles	Perchlorates, Nitrates Permanganates,	Flammables, combustibles organic materials
Toxic Chemicals (Poisons)	In a ventilated, dry, cool area in a chemically resistant secondary container	Chloroform, Cyanides, Heavy Metals such as Cadmium, Mercury	Flammable liquids, acids, bases, reactive, oxidizers
Non-hazardous / General stock chemicals	Storage on laboratory benches, or shelves with like Chemicals. Use upper shelves for non-hazardous chemicals	Sodium bicarbonate, Agar, Salt buffers	Consult chemical specific SDS sheets

Contact RMS at 334-740 9711 OR 334-740-9798 for more information

Web: www.auburn.edu/RMS