



KOÇ ÜNİVERSİTESİ

STORAGE OF CHEMICALS

Class of Chemicals	Recommended Storage Method	Chemical Examples	Incompatible Chemicals
Compressed Gasses - Flammables, Explosives	Should be stored in a cool and dry area 5 meters away from oxidizing gasses. Cylinders should be securely strapped or chained to a wall.	Methane, acetylene, hydrogen	Oxidizing gasses, toxic gasses, oxidizing solids
Compressed gases – Liquid Flammables	Should be stored in a cool and dry area 5 meters away from oxidizing gasses. Cylinders should be securely strapped or chained to a wall. Except for daily work, permanent storage of gasses more than 0.5 litre should be located outside of the building.	Propane, butane	Oxidizing gasses, toxic gasses, oxidizing solids
Compressed Gasses - Reactive	Should be stored in a cool and dry area 5 meters away from oxidizing gasses. Cylinders should be securely strapped or chained to a wall. Except for daily work, permanent storage of gasses more than 0.5 litre should be located outside of the building. Safe storage of some gasses may require installation of a ventilation system in the storage area.	Oxygen, chlorine, bromine	Flammable gasses
Compressed gasses - Toxics, Corrosives	Should be stored in a cool and dry area 5 meters away from oxidizing gasses. Cylinders should be securely strapped or chained to a wall. Safe storage of some gasses may require installation of a ventilation system in the storage premises.	Carbon monoxide, hydrogen sulfur	Flammable gasses, oxidizing gasses
Corrosives- Inorganic Acids	Should be stored in a separate, protected storage cabinet or plastic secondary container.	Hydrochloric acid, sulfuric acid, chromic acid, nitric acid. (Nitric acid is a strong oxidizer and should be stored by itself)	Flammable liquids, flammable solids, bases, oxidizers and organic acids
Corrosives- Organic Acids	Should be stored in a separate, protected storage cabinet or plastic secondary container.	Acetic acid, trichloroacetic acid, lactic acid	Flammable liquids, flammable solids, bases, oxidizers and inorganic acids
Corrosives- Bases	Should be stored in a separate container	Ammonium hydroxide, potassium hydroxide, sodium hydroxide	Oxidizers and acids



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Explosives	Should be stored away from all other chemicals in a secure location where they cannot fall.	Ammonium nitrate, nitro Urea, sodium azide, trinitroaniline, trinitroanisole, trinitrobenzene, trinitrophenol/picric Acid, trinitrotoluene (TNT)	All other chemicals

Flammable Liquids	Should be stored in a flammable storage cabinet (Peroxide forming chemicals must be disposed of within 6 months upon opening, e.g., ether, tetrahydrofuran, dioxane).	Acetone, benzene, diethyl ether, methanol, ethanol, toluene, hexanes	Oxidizers and acids
Flammable Solids	Should be stored in a separate dry and cool area away from oxidizers and corrosives.	Phosphorus, carbon	Oxidizers and acids
Water Reactive Chemicals	Should be stored in a dry, cool location, away from water and the fire sprinkler system.	Sodium metal, potassium metal, lithium metal, lithium aluminium hydride	All aqueous solutions and oxidizers
Oxidizers	Should be stored 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 (Chemical groups, such as nitrates, nitrites, chromates, dichromates, chlorites, permanganates are considered oxidizers).	Reducing agents, flammables, combustibles and organic materials
Toxics (Poisons)	Should be stored separately in vented, cool, dry area in chemically resistant secondary containers.	Cyanides, heavy metal Compounds (Cadmium, mercury, osmium)	See: Material Safety Data Sheet (MSDS)
Pyrophoric Liquids	Should be stored under inert atmosphere away from any heat source.	Grignard reagents, n-butyl lithium, t-butyl lithium	All aqueous solutions and oxidizers
Non-Reactive Chemicals	Should be stored on general laboratory benches or shelving. Use upper shelving for non-hazardous chemicals only.	Agar, sodium chloride, sodium bicarbonate, and non-reactive salts	See: Material Safety Data Sheet (MSDS)