

Chemical Segregation Chart

This chart assists with proper segregation of chemicals in storage and waste. With all chemicals: **Check the SDS** (Section 7: Handling and Storage, Section 10: Stability and Reactivity) for specific storage requirements. **Label** all storage areas with the hazard present. Use **secondary containment** whenever possible for hazardous chemicals, and is **required** for all waste. Secondary should be large enough to contain **110% of the largest container**. For assistance with chemical storage questions, contact compliance@kent.edu, and for all lab and research safety needs, visit <https://www.kent.edu/compliance/research-safety-and-compliance>

Cat.	GHS Symbol	Chemical Hazard	Examples	Storage	Store away from	
Compressed Gas		Flammable	Methane Acetylene Propane	<ul style="list-style-type: none"> Cool, dry area 20 ft. away from oxidizing gases or separated by 5 ft. high wall with 0.5hr fire resistance Secure cylinders upright with two chains/straps 	Oxidizing gases Toxic gases Oxidizing solids	
		Oxidizing	Oxygen Chlorine Fluorine mixtures	<ul style="list-style-type: none"> Cool, dry area 20 ft. away from flammable gases or separated by 5 ft. high wall with 0.5hr fire resistance Secure cylinders upright with two chains/straps 	Flammable Gases	
		Poisonous	Carbon monoxide Hydrogen sulfide	<ul style="list-style-type: none"> Cool, dry area Away from flammable gases and liquids Secure cylinders upright with two chains/straps 	Flammable Gases Oxidizing Gases	
Corrosives		Inorganic Acids	Hydrochloric acid Sulfuric acid Phosphoric acid	<ul style="list-style-type: none"> Separate acid storage cabinet Use a chemically resistant secondary container Metal shelves not recommended due to corrosion 	Flammables Bases Oxidizers Organic acids	
		Organic Acids	Acetic acid Trichloroacetic acid Lactic acid	<ul style="list-style-type: none"> Separate acid storage cabinet Use a chemically resistant secondary container Metal shelves not recommended due to corrosion 	Flammables Bases Oxidizers Inorganic acids	
		Oxidizing Acids	Nitric Acid Perchloric acid Chromic acid	<ul style="list-style-type: none"> Separate acid storage cabinet Use a chemically resistant secondary container Away from flammables and other acid types Metal shelves not recommended due to corrosion 	Flammables Inorganic acids Organic acids Bases	
		Bases	Ammonium hydroxide Potassium hydroxide Sodium hydroxide	<ul style="list-style-type: none"> Storage cabinet separate from all acids Use a chemically resistant secondary container 	Flammable liquids Oxidizers Poisons Acids	
Reactives		Explosives	Picric acid (dry) Tri-nitro compounds Heavy metal azides	<ul style="list-style-type: none"> Secure location Away from all other chemicals Protect from falls, impacts, and shocks Contact EH&S for specific guidelines 	All other chemicals	
		Flammable Liquids	Acetone Benzene Methanol	<ul style="list-style-type: none"> Flammable storage cabinet Separate, dry, cool area Away from oxidizers and corrosives Peroxide forming chemicals must be dated when opened 	Acids/Bases Oxidizers Poisons	
			Flammable Solids			Phosphorous Carbon Charcoal
			Oxidizers	Hydrogen peroxide Potassium dichromate Halogens Nitrate compounds	<ul style="list-style-type: none"> Non-combustible cabinet Use a chemically resistant secondary container Away from flammables 	Reducing agents Flammables Organic materials
			<i>No GHS symbol</i>	Water Reactive Chemicals	Sodium metal Potassium metal Lithium Metal	<ul style="list-style-type: none"> Dry, cool location Use a chemically resistant secondary container Label location "water reactive"
Other		Poisons	Cyanides Heavy metal compounds	<ul style="list-style-type: none"> Cool, dry area Well ventilated area Use a chemically resistant secondary container 	Flammables Corrosives <i>Check Sections 7 & 10 of SDS</i>	
		Skin/Eye Irritants Acute Toxicity Narcotic Effects Respiratory Tract Irritants	Tris Base Dichloromethane Polyvinylpyrrolidone			
		Carcinogens Mutagens Respiratory Sensitizers Target Organ Toxicity Aspiration Toxicity	Acrylamide Chloroform Formaldehyde			