# Basic Chemical Segregation

| CLASS OF CHEMICALS | RECOMMENDED STORAGE METHOD | EXAMPLES | INCOMPATIBILES * |
|---|---|---|---|
| **Carginogens** | Label all containers as "Cancer Suspect Agents."<br>Store according to the hazardous nature of the chemical, using the appropriate security when necessary. | Benzidine, beta-naphthylamine, benzene, methylene chloride, beta-propiolactone | See the original chemical label or the SDS for more information. |
| **Compressed Gases - Flammable** | Store in a cool, dry area, away from oxidizing gases.<br>Securely strap or chain cylinders to a wall or bench top. | Methane, acetylene, propane | Oxidizing and toxic compressed gases, oxidizing solids |
| **Compressed Gases – Oxidizing** | Store in a cool, dry area, away from oxidizing gases.<br>Securely strap or chain cylinders to a wall or bench top. | Oxygen, chlorine, bromine | Flammable gases |
| **Compressed Gases – Poisonous** | Store in a cool, dry area, away from oxidizing gases.<br>Securely strap or chain cylinders to a wall or bench top. | Carbon monoxide, hydrogen sulfide (H2S) | Flammable and/or oxidizing gases |
| **Corrosives – Acids** | Store in a separate acid storage cabinet.<br>Segregate oxidizing acids (i.e., Chromic, nitric, sulfuric, perchloric acides) from organic acids | Mineral acids – hydrochloric acid, sulfuric acid, nitric acid, percholoric acid, chromic acid, chromerge | Flammable liquids, flammable solids, bases, oxidizers |
| **Corrosives – Bases** | Store in a separate storage cabinet. | Ammonium hydroxide, sodium hydroxide | Flammable liquids, oxidizers, poisons, acids |
| **Flammable Liquids** | Store in a grounded flammable storage cabinet. | Acetone, benzene, diethyl ether, methanol, ethanol, toluene, glacial acetic acid | Acids, bases, oxidizers, poisons |

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| **Flammable Solids** | Store in a separate dry, cool area away from oxidizers, corrosives, and flammable liquids. | Phosphorus (yellow), calcium carbide, picric acid, benzoyl peroxide | Acids, bases, oxidizers, poisons |
| **General Chemicals Non-Reactive** | Store on general laboratory benches or shelving preferable behind glass doors, or below eye level. | Agar, sodium chloride, sodium bicarbonate, most non-reactive salts | See the original chemical label or the SDS for more information. |
| **Oxidizers** | 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<br>The following are generally considered oxidizing substances: peroxides, percholorates, chlorates, nitrates, bromates, superoxides. | Separate from reducing agents, flammables, combustibles |
| **Peroxide-Forming Chemicals** | Store in air-tight containers in a dark, cool, dry area. (See **Suggested Storage Time Limits for Common Peroxidizable Compounds** for more information.) | Diethyl ether, acetaldehyde, acrylonitrile | See the original chemical label or the SDS for more information. |
| **Poisons/Toxic Compounds** | Store separately in a vented, cool, dry area in unbreakable chemically resistant secondary containers. | Cyanides, heavy metal compounds (i.e., cadmium, mercury, osmium) | Flammable liquids, acids, bases, oxidizers |
| **Shock Sensitive Materials** | Store in a secure location away from all other chemicals. | Ammonium nitrate, nitro urea, picric acid (in a dry state), trinitroaniline, trinitroanisole, trinitrobenzene, trinitrophenol/picric acid, trinitrotoluene, urea nitrate, zironium picramate | Flammable liquids, oxidizers, poisons, acids, bases |

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| **Strong Reducing Agents** | Store in a cool, dry, well-ventilated location.<br>Most of these are water-reactive.<br>Segregate from all other chemicals. | Acetyl chloride, thionyl chloride, maleic anhydride, ferrous sulfide | See the original chemical label or the SDS for more information. |
| **Teratogens** | Label all containers as "Suspect Reproductive Hazard."<br>Store according to the hazardous nature of the chemical, using the appropriate security when necessary. | Lead, mercury compounds, benzene, aniline | See the original chemical label or the SDS for more information. |
| **Water Reactive Chemicals** | Store in a dry, cool location.<br>Protect these chemicals from the water fire sprinklers. | Sodium metal, potassium metal, lithium metal, lithium aluminum hydride | Separate from all aqueous solutions and oxidizers |

This information is from the **Environment, Health, and Safety Online** website (EHSO). We wish to give them full credit and our thanks for this information.

***Read the chemical label or the SDS if you have questions or call OH&S.**