








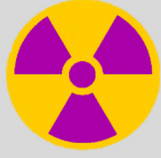



## Chemical Storage – Segregation Groups

<b>FLAMMABLE</b> 	<b>CORROSIVE</b> 	<b>Highly TOXIC</b> 	<b>OXIDIZER</b> 	<b>OTHER</b> 
<p><i>Segregate Further by:</i></p> <div>Peroxide Formers</div>  <div>Water Reactives</div>  <div>Air Reactives</div> 	<p><i>Segregate Further by:</i></p> <div>Organic Acids</div> <p>Acetic, Benzoic, Butanoic, Citric, Formic, Oxalic</p> <div>Inorganic Acids</div> <p>Hydrochloric, Phosphoric</p> <div>Oxidizing Acids</div> <p>Chloric, Chromic, Sulfuric, Perchloric</p> <div>Nitric Acid</div> <p>(Isolate)</p> <div>Bases</div> <p>Hydroxides</p>	<div>Acute Toxins</div> <ul style="list-style-type: none"> <li>○ Lethal by Inhalation</li> <li>○ Lethal by Dermal contact</li> <li>○ Highly Toxic</li> </ul> <div>Carcinogens</div> <ul style="list-style-type: none"> <li>○ OSHA 13 regulated</li> <li>○ Known or reasonably anticipated</li> <li>○ Causes tumors</li> </ul> <div>Reproductive Toxins</div> <p>(Also known as)</p> <p><b>Particularly Hazardous Substances</b></p>	<ul style="list-style-type: none"> <li>○ Bromine</li> <li>○ Bromates</li> <li>○ Chlorates</li> <li>○ Chromates</li> <li>○ Nitrates</li> <li>○ Nitrites</li> <li>○ Perborates</li> <li>○ Perchlorates</li> <li>○ Permanganates</li> <li>○ Peroxides</li> <li>○ Persulphates</li> </ul> <p><b>Hydrogen Peroxide</b> <b>Potassium Permanganate</b></p> <p><i>Segregate from:</i> <b>Flammables and Combustibles</b></p>	<p><i>Segregate Further by:</i></p> <div>General Storage</div> <div>Chemical Families / Functional Groups</div>   

*Refer to the Chemical Segregation & Incompatibilities Guidelines, and Safety Data Sheets for specific incompatibilities.*

# Organize Chemicals by Hazard

- Establish storage space and separate chemicals according to their hazard. The following categories of chemicals and color-coding are strongly recommended as a starting point for determining storage. In all cases, classification is done based upon the potential interaction of the chemical.
- **Separate Solids from Liquids** - to minimize the involvement of chemicals in the event of a liquid spill
- **Remember the “Big Five” common hazards -**
  1. **FLAMMABLES – Red** - Store in a corrosion-proof area, and separate the following:
    - Air Reactive flammables
    - Water incompatible flammables (sodium, potassium, lithium metals)
  2. **CORROSIVES – White** - Separate the following:
    - **Acids –**
      - Inorganic Acids
      - Organic Acids
      - Oxidizing Acids (Sulfuric, Perchloric, Chloric, etc.)
      - Nitric Acid (Isolate)
    - **Bases**
  3. **OXIDIZERS – Yellow** - Store away from flammables and combustibles
  4. **TOXICS / POISONS – Blue** - Secure in poisons area
  5. **OTHER CATEGORIES – Gray** - and general storage area.
- Designate a cabinet, shelf, or area (with secondary containment) for each color according to the guidelines above.
- Place color-coded chemicals by hazard in the area that matches their color. You can alphabetize chemicals within each hazard.
- **Classify chemicals by organic or inorganic, within hazard color codes.** This can provide an extra level of safety with materials that could interact, especially where large amounts of organic and inorganic chemicals are present.
- **Some items need separate storage:** Nitric acid should be stored in an isolated compartment within an acid storage cabinet.  
Sodium and potassium metals are supplied under oil in a bottle that is in turn enclosed in a sealable can. The can provides isolation for the chemical.