Making Sense Out of Chemical Storage

Proper chemical storage is a critical part of laboratory safety. Here are some basic steps for safe, organized chemical storage.

Let's Get Organized!

- Separate each hazard class of chemicals so that they will not react with each other. Container labels should have the chemical name and hazard easily visible.
- Post each storage shelf or cabinet with a sign that lists the primary hazard. Use the classifications below to sort chemicals for storage.
 - Toxic or Poison
 - o Flammable
 - Reactive
 - o Corrosive (acids and bases)
 - o Oxidizer
 - Low Hazard



- Order and store highly toxic or cancer causing chemicals in the smallest practical amount.
- Store flammable or combustible liquids in approved containers.



- o Put containers in flammable material storage cabinets, or in under-hood storage areas.
- Store no more than 10 gallons of flammable liquids outside flammable material storage cabinets.
- Keep water reactive chemicals in a cool, dry area away from sources of water.
 - o Protect these materials from water that may be released from sprinklers during a fire.

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- Separate acids and bases.
 - o Do not put containers of corrosives on high shelves. Crystals may form on bottles if acids and bases are stored in the same cabinet.
 - Nitric acid is an oxidizer and corrosive acid. Store it by itself. Separate oxidizers like hydrogen peroxide or perchlorates from flammable chemicals. If oxidizers mix with flammable chemicals, they may cause a fire.



- Secure compressed gas cylinders upright in well-ventilated, cool areas.
 - o Make sure the valve protection caps are in place.
 - The maintenance department will install wall brackets and chains for securing cylinders.

Last, but not least...

- Check chemicals at least annually to make sure they have not expired, and that the containers are still in good condition.
- Dispose of outdated chemicals. (Hint: 1968, 1976, or 1989 might have been good years for wine, but not for chemicals. Dispose of them properly!)
 - o Recycle chemicals that have not been used for more than 2 years.



For more information on chemicals, recycling, and exchange contact OH&S.