Weekly Safety Meeting

Chemical Storage Is A Matter of Safety

There are many work situations in which chemicals are routinely relied upon to get the work done. But just as important as the safe handling of these chemicals, is their safe storage. If not stored properly, chemicals can cause a fire, explosion, or personal injury. There are some real and common-sense safe storage procedures that should be followed to keep workers and the workplace free of chemical-related accidents.

The most important factor in chemical storage safety is keeping chemicals in their original containers. Next, check that each chemical container has a label. The label is a quick way of determining whether the material is a fire, health, or reactivity hazard. Read the chemical's Safety Data Sheet (SDS). The SDS describes the chemical's properties, hazards, and what to do if there is an accidental spill or exposure. Use the SDS as a guide for making storage decisions.

General Guidelines:

Follow these guidelines for safe chemical storage:

- Read chemical labels and SDSs for specific storage instructions.
- Store chemicals in a well-ventilated area; however, do not store chemicals in a fume hood.
- Maintain an inventory of all chemicals in storage.
- Return chemical containers to their proper storage location after use.
- Store glass chemical containers so that they are unlikely to be broken.
- Store all hazardous chemicals below eye level.
- Never store hazardous chemicals in a public area or corridor.

Separating Hazardous Chemicals:

In addition to the guidelines above, there are storage requirements for separating hazardous chemicals. Because an alphabetical storage system may place incompatible chemicals next to each other, group chemicals according to their hazard category (i.e., acids, bases, flammables, etc.).

Follow these guidelines to ensure that hazardous chemicals are stored safely:

- Separate acids from bases. Store these chemicals near floor level;
- Isolate perchloric acid from organic materials. Do not store perchloric acid on a wooden shelf;
- Separate highly toxic chemicals and carcinogens from all other chemicals. The storage location should have a warning label and should be locked;
- Separate acids from flammables;

- Do not keep peroxide-forming chemicals longer than twelve months;
- Do not allow picric acid to dry out;
- If flammables need to be chilled, store them in a laboratory-safe refrigerator, not in a standard refrigerator;
- Flammables should be stored in a flammable storage cabinet; and
- Store reactive materials separately from corrosives or flammables.

You Can Protect Yourself Against Chemical Hazards:

- Read container labels, safety data sheets (SDSs) and safe-work instructions for handling the chemical;
- Use specified personal protective equipment (PPE) that may include chemical-splash goggles, a respirator, safety gloves, apron, steel-toed shoes, safety glasses with side shields, etc.;
- Ensure the PPE fits properly, and you are trained in its use;
- Inspect all PPE before you use them. Look for defects in the equipment such as cracks, missing parts, rips, etc. Ensure your respirator has the proper chemical cartridge for the particular chemical hazard. Change cartridges when it is necessary;
- Know the location of safety showers and eyewash stations and how to use them;
- Wash your hands before eating, especially after handling chemicals;
- Leave your contaminated clothing at work.
  - If you wear the clothes home, you can expose your family to the hazards.

Maintenance:

Maintenance is another important factor in safe chemical storage. Someone should be assigned to periodically inventory the chemicals, not only to check for proper storage but to also check for damaged or corroded containers, signs of leakage, or container pressure buildup.

Make sure empty or damaged chemicals are disposed of properly.

USING CHEMICALS…KNOW THE DANGERS!!

Safety Meeting Sign-In Sheet

Supervisor:	Subject:
Location:	Date:
Conducted By:	Trainer Signature:

Name (print clearly)	Signature	Comments / Safety Concerns / Training Requests