

# Risk Manager

Answers, resources and information to help assess and reduce risk

## Laboratory Chemical Storage By Derek Neubauer

A chemistry program has certain potential inherent dangers. With proper labeling and storage, most dangers associated with the use of chemicals in an activity-based science program may be avoided. Ensuring the chemicals are stored correctly is another important step in the overall safety program for an academic science lab. Below are general rules to assist with proper storage of chemicals:

### Storage Area

- Store chemicals inside cabinets with doors or on a sturdy shelf with at least a three-quarter inch lip to reduce spills.
- Secure shelving to the wall or floor.
- Chemical storage rooms should have doors with locks.
- Chemical storage areas should only be accessible to the instructor and not the students.
- Ventilate storage areas appropriately.

### Organization

- Take an inventory of all chemicals that are currently being stored on a routine basis.
- Store chemicals by compatibility first, not alphabetically.
- Remove and properly dispose of any unused or old chemicals.

### Chemical Segregation

- Store acids in an acid cabinet.
- Nitric acid should be stored in a separate compartment inside an acid cabinet.

- Store toxic chemicals in a lockable poison cabinet with a highly visible sign.
- Store flammable and combustible liquids in an approved flammable liquids cabinet.

### “Don’ts”

- Don’t expose stored chemicals in direct heat or sunlight.
- Don’t store chemicals on shelves above eye level.
- Don’t store chemicals on the floor.
- Don’t store chemicals in refrigerators that are used for personal food consumption.
- Don’t eat or prepare food/drink in the chemical storage room.
- Don’t store chemicals in chemical hoods except when in use.

### Chemical Storage Containers

- Never use food containers for chemical storage.
- Make sure all containers are properly closed.
- Wipe down containers with paper towel after use. Ensure the paper towel is disposed of properly.
- If a chemical begins to react, the chemicals involved should be disposed of properly.

### Highlights of the Globally Harmonized System (GHS)

- Became effective May 26, 2012.
- MSDS are now Safety Data Sheets (SDS).

- The goal is to have uniform rules when classifying chemicals. Previously, chemicals manufactured by different companies could be classified differently.
- Will improve consistent hazard information.
- Training should be completed by December 2013.
- Make sure any SDS received from chemical suppliers meet the new requirements.

Proper storage of chemicals assists in both providing a safe science lab environment and regulates the chemicals used in class experiments.

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For additional information or training on best practices and safety management within your school entity, please contact Director of Risk Management Sharon Orr at (866) 401-6600, ext. 7152 or [sorr@cmregent.com](mailto:sorr@cmregent.com).