

Nationwide, schools are finding unwanted chemicals in classrooms and storage areas. Chemicals may no longer offer educational value, given their potential risks and subsequent liability to school administrators, staff and students. Discoveries include chemicals that are aged (more than 50 years old), degraded, improperly stored, shock/heat-sensitive (explosive), peroxide-formers, carcinogenic, acutely toxic, controlled substances, radioactive and highly flammable. Implementing a Chemical Management Program will provide your school with guidance in proper chemical safety and health practices.

Chemical Management Program

A Chemical Management Program is a comprehensive effort to implement chemical safety and health practices that address: purchasing, inventory control, safe handling and usage, storage, security, disposal, emergency preparedness and training. School management should emphasize the importance of managing chemicals with a written program containing, at least, the following elements:

Purchasing Policies

- Centralized purchasing for all chemicals used by the district
- Formalized review process for chemicals purchased or donated by vendors, contractors, or businesses; the process should examine chemical hazard information, safety precautions, usage practices, quantity, storage requirements, and disposal
- Limiting purchases to a two-year supply or less, depending on the properties of the chemicals and hazard information

Inventory All Chemicals—CAUTION—High-hazard chemicals (explosive and/or shock-sensitive) may be present. Be sure to follow chemical safety procedures and use eye and hand protection when conducting the inventory. Do not move containers that have not been used for extensive lengths of time or if contents are unknown.

- Identify current chemical supplies throughout the school district

- Determine surplus, if any, for redistribution within the school district
- Document the chemical name,



manufacturer, location, quantity, disposal method, and user

- Identify hazardous chemical risks and liabilities
- Maintain centralized or area/department inventory documents
- Update inventory(ies) annually
- Submit inventory(ies) to local fire authorities

Material Safety Data Sheet (MSDS) and Labeling

- Obtain current MSDS for each chemical in the inventory
- Maintain MSDS readily accessible to each chemical user, either in electronic media or hard copy form
- Label secondary or transfer containers with chemical name and hazard warnings

Handling and Usage

- Review curriculum and program for chemical usage; consider using less hazardous chemicals, microscaling laboratory experiments, etc.
- Safety equipment requirements—emergency eyewash/shower, fume hoods, storage cabinets, adequate ventilation

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- Personal Protective Equipment (PPE)—safety glasses, chemical goggles, face shields, aprons, gloves, lab coats, respirators, etc. PPE must be selected based on the type of chemical being used
- Written Chemical Hygiene Plan for laboratories, usually in the Science department
- Written Hazard Communication Program for the entire school district

Storage and Security

- Chemicals must be stored according to their chemical class and reactivity (flammable, corrosive, oxidizer, air and/or water reactive, etc.)
- All flammable liquids stored in approved “flammable” liquid storage cabinets
- Acids separated from bases in storage cabinets designed for “Acids” and “Corrosives”
- Laboratory chemicals should be stored based on a classification system (i.e., Flinn Scientific, Sargent-Welch, Fisher, VWR, etc.)
- Chemical storage shelves should have lips
- Chemicals should be stored at eye level and below
- Storage areas and cabinets should be kept secure (locked or directly supervised) to prevent unauthorized access
- Flammable storage rooms and chemical laboratory storage areas should be vented directly to the outside and have at least six complete air changes per hour

Chemical Disposal

- Waste minimization efforts should be implemented
- Determination of a hazardous or universal waste
- Disposal of hazardous and nonhazardous waste
- Written documentation of waste disposal (i.e., manifest, invoice, etc.)
- Contractual agreements between waste haulers, recyclers, etc.

Chemical Emergency Preparedness

- Key contacts
- Decision tree to determine incidental vs. emergency spill (when to call for help)
- Emergency response phone numbers
- Diagram of chemical storage areas
- Spill equipment and cleanup procedures
- Spill prevention program
- Evacuation plan

Training

- Hazard Communication staff information and training
- Chemical Management Program components
- Chemical Hygiene Plan for laboratories
- Hazardous waste disposal methods
- Emergency preparedness—spill prevention and response, security breaches, etc.

Identifying School Chemicals

Chemicals are used throughout a school district in virtually each building. A Chemical Management Program should extend district-wide, to all areas and departments. The following areas/departments should be researched for chemicals in each of the school district’s buildings:

- Kitchens
- Art Rooms
- Bus Barns
- Custodial Services

For Additional Information

Mercury in Schools:

www.mercuryinschools.uwex.edu

Florida Department of Environmental Protection:

www.dep.state.fl.us

- School Chemicals

EMC Insurance Companies: www.emcins.com

- Tech Sheets
- EMC Services – Email chemeyes@emcins.com