Right to Know Laws* or Hazard Communication Standards

There is some confusion about the use of hazardous chemicals in schools and about how the relevant "Right-to-Know" laws apply to schools. Let's set the record straight for public schools. The United States government has passed the Hazard Communication Standard (usually referred to as the "Right-to-Know" law) and the Laboratory Standard, but these laws do not extend coverage to state and local governments. However, almost all state governments have either passed their own version of the Hazard Communication Standard or put their stamp of approval on the federal laws and extended their jurisdiction to cover local and state governmental bodies—including public schools. Federal jurisdiction does apply to all private schools.

The purpose of these laws is to inform employees about any hazards associated with an employee's work. Employees have the "right to know" about all the hazards they might deal with in the workplace.

GHS Revision

In March 2012 OSHA published the first major revision to the Hazard Communication Standard since its inception. In announcing the revision to incorporate what is known as GHS, OSHA stated that its goal was to transform the "right to know" into the right to understand chemical hazards. GHS stands for the Globally Harmonized System of Classification and Labeling of Chemicals. GHS is a document that establishes objective criteria for classifying and identifying chemical hazards. The overarching goal is to ensure the safe use of chemicals by providing practical, reliable, and comprehensible information on their hazards. GHS provides a set of objective criteria for classifying the physical and health hazards of chemicals. To remove ambiguity about the degree of risk inherent in using a chemical, GHS further specifies the use of standard symbols and language elements to convey the hazard information on chemical labels. Hazardous chemical labels will be required to include pictograms, a signal word, as well as specific hazard and precautionary statements.

Major Requirements

The federal and most state Right to Know laws contain the following six requirements or provisions.

1. Safety Data Sheets (SDS)

SDS are the primary way of communicating the hazards of a chemical to an employee or an employer. The SDS provision of the law requires the employer to acquire, update and maintain SDS for all of the hazardous chemicals used or stored in the facility and to make those SDS available to the employee for informational purposes.

The minimum standards for SDS include:

- The SDS must be written in English
- Chemical name
- Hazards identification with GHS signal word, pictograms, hazard class, and applicable hazard statements.
- Hazardous components
- Physical characteristics (density, flash point, etc.)
- Physical hazards (fire, explosion, reactivity)
- Health hazards (both chronic and acute). All signs or symptoms of exposure must be listed. Carcinogens must be identified.
- Primary routes of entry and target organs
- Permissible exposure limits or TLV
- Any applicable precautions (gloves, goggles, fume hood, etc.)
- First aid and emergency procedures (chemical splash, spill handling, etc.)
- Date prepared
- Name and address of the manufacturer or SDS preparer including the phone number.

2. Hazardous Materials List

A list of all hazardous chemicals must be assembled. In most states this list is kept only by the employer and access is given to the employee on request. Some states require a copy of this list to be given to the fire department or some other state agency. See the state-by-state breakdown of the Right to Know laws for further details.

3. Inventory

The hazardous materials list and an up-to-date inventory usually go hand in hand. Both the list and the inventory must be continually updated. An inventory of all hazardous chemicals is an essential requirement of most Right to Know laws. An inventory consists of the name of the chemical, how much you have, and where it is stored.

4. Notification

All laws require the employer to notify the employee of any potential exposure or actual exposure to a hazardous substance. This is initially accomplished by posting the Right to Know regulations or a poster where it can be easily read and will be noticed by the employee. Notification is also accomplished through training and employee access to SDS.

5. Training

Many state laws are very detailed and specific in the area of training requirements of employees. Most states require training to be done on an annual basis or when exposure to a new hazard is anticipated. Some states require this training to be in written form while others allow verbal training or some combination of both types. Training includes:

a. Learning to read labels and SDS
b. Providing the locations of hazardous materials
c. Learning the hazards associated with the materials in the workplace, both chronic and acute
d. Safe handling of chemicals
e. Use of protective equipment (fire extinguishers, respirators, etc.)
f. First aid and emergency procedures (spills, exposure, splashes, etc.)

*** The Right to Know law summary information listed here was obtained from reliable sources. For more information, go to www.flinnsci.com/safety for the name and address of the agency in your state that regulates these laws and standards.**

continued on next page.

6. Labels and Labeling of Hazardous Materials

Most laws require that a minimum standard of labeling must be observed. This includes:

- Chemical name, concentration, target organ, effect, and date prepared
- Hazards, both physical and health
- Hazards identification with GHS signal word, pictograms, hazard class, and applicable hazard and precautionary statements.
- Name and address of the manufacturer

All states indicate that if the product is purchased and the label meets the standard, no further labeling is necessary.

Flinn Is Your Source for Safety Training

Annual safety training is required in most states. Flinn Scientific trains over 5,000 teachers every year through the Flinn Scientific Laboratory Safety course, labsafety.flinnsci.com. To help satisfy annual training requirements, Flinn provides free monthly safety training through the Flinn Science Department Safety Training Notes. These safety notes are sent out every month via e-mail. To receive this valuable training aid, please call Flinn or sign up on our Web site at www.flinnsci.com.

Many teachers consider *The Flinn Scientific Catalog/ Reference Manual* their "safety bible" and use it as the source of their informal safety training. The Flinn technical staff also writes numerous safety articles every year that are e-mailed to our customers or available on the Flinn Web site. Count on Flinn for your safety training needs.

The Chemical Hygiene Plan

In May of 1990, the federal government passed an extension of the Hazard Communication Act written specifically for the research and academic laboratory. Most states also passed a version of the Laboratory Standard. Enforcement of the new Laboratory Standard began in January of 1991. The Laboratory Standard is very similar in many ways to the original law. The major difference is the requirement to have a Chemical Hygiene Plan and a Chemical Hygiene Officer.

A Chemical Hygiene Plan (CHP) is a written report summarizing all your safety regulations, proper laboratory procedures for handling hazardous chemicals, and training procedures. The CHP should include:

- General laboratory rules and procedures
- Personal protective equipment requirements
- Spill and accident procedures
- Chemical storage rules and procedures
- Safety equipment requirements and inspection procedures
- Employee safety training
- Exposure and medical evaluations
- Emergency evacuation plan

The CHP is a manual that describes your laboratory regulations, proper lab procedures, and how to respond to emergency situations. The listing of rules and procedures are your Standard Operating Procedures. These rules and procedures must be well thought out with the principal goal of always minimizing the exposure of employees and students to hazardous chemicals.

Flinn CHP Has Helped Thousands of Teachers

Developing a Chemical Hygiene Plan (CHP) does not have to be difficult. Thousands of schools have created their own individualized CHP starting with the Flinn Scientific Chemical Hygiene Plan as a model or template. This multi-paged CHP model plan is available free from Flinn Scientific. It contains the basic safety laboratory regulations and procedures and is easy to alter to meet your individual school's needs. For a free copy of this important document, which is available as either a paper hard copy or a Word document, send your request to Flinn Scientific, Inc., P.O. Box 219, Batavia, IL 60510. For an electronic version, please e-mail us at flinn@flinnsci.com and request the CHP Microsoft Word® document.

Conclusion

The various state Right to Know laws are all very similar. The six major requirements or provisions discussed above are always included, along with minor modifications concerning who must be trained and how or to whom you will have to send SDS and hazardous materials lists. The paperwork requirements (SDS and reporting lists) can be overwhelming, but are mandated by the laws. The science teacher's five major steps include:

1. Take an inventory (develop a list of hazards)
2. Acquire, update, and maintain Safety Data Sheets
3. Label all chemicals properly
4. Train
5. Develop a Chemical Hygiene Plan

Following these five steps will not only help you comply with your respective state's Right to Know law, but will also improve the safety in your classroom.