

Hazardous Chemicals in the Workplace

There are an estimated 650,000 existing hazardous chemical products -- and hundreds of new ones are being produced each year. Employees of all kinds work with these chemicals in a pure form or in a mixture.



What are the Risks of Working with These Chemicals? Chemical hazards are generally classified into physical hazards (such as flammability, corrosion, and reactivity) and health hazards (such as irritation, sensitization, and carcinogenicity). The actual types and levels of the hazards associated with a product depend on both the hazards of the individual components and how they may combine.

Dealing with the Risks In order to work safely with these materials, workers must understand the risks of working with them and what can be done to stay safe. This article is intended to serve as a brief general introduction into workplace chemical hazards and general issues related to their management.

Recognition Before you can know how dangerous the chemical hazards are in your workplace, you must know what chemicals are present and have safety information in regards to them.

- Do you know what chemicals are in your workplace?
- Are all the containers clearly labeled?
- Are the labels complete and informative?

Evaluation - A review of the documents and labels should provide at basic information as to the types and levels of chemical hazards they may present. If you don't understand, ask!

Simply reviewing a data sheet may not be enough. It is important to assess real exposures in the actual workplace. Work practices and how the products are used can make a great deal of difference as to the real hazard.

Control Once the assessment has been made, control measures may be required, and may include:

- Additional employee training in recognition and use of the products
- Appropriate personal protective equipment such as gloves, eyewear, respiratory protection, and protective clothing
- Replacement of hazardous products with another product which has less hazard
- Engineering controls such as capture and exhaust ventilation
- Administrative controls - i.e. work scheduling
- Process changes of changes in how the work is done.

Hazard Communication Standard Ultimately, the responsibility for workplace hazard communication lies with the employer. Your workplace should provide you with what you need to work safely with the chemicals found on the job. The Occupational Safety and Health Administration (OSHA) has in place a Hazard Communication Standard (HCS) that covers workers exposed to hazardous chemicals in all industrial sectors. This standard asserts that employees have both a need and a right to know the identities and the risks of the products they are exposed to while at work. Employees also need to know what protective measures can and should be used to prevent harm from these products. The major components of the HCS are:

Information Availability. Information must be easily available to workers about the identities and hazards of the chemicals they may be exposed to. This information will be provided in the form of labels and materials Safety Data Sheets (MSDS'), and must be in a language they understand.

Material Safety Data Sheets (MSDS). Manufacturers and importers of chemical products are required to evaluate the hazards their products and prepare labels and material safety data sheets (MSDSs) with hazard information to their customers and to employers that purchase their products. The information contained in the MSDS is specified. MSDSs must be updated by the chemical manufacturer or importer within three months of learning of "new or significant information" regarding the chemical's hazard potential.

Labels and Labeling. Manufacturers, importers, or distributors are required to label each container of hazardous chemicals. The content and format of the labels is specified. If these chemicals are transferred into unmarked containers, these containers must be labeled with the required information, unless the container into which the chemical is transferred is intended for the immediate use of the employee who performed the transfer.



Training. Employees must be trained at the time they are assigned to work with a hazardous chemical, and prior to exposure. This training must assure that the employees know how to use the information provided in the hazard communication program, and should include an opportunity for employees to ask questions.

Management Plan. Your school district has developed a written hazard communication program – take the time to review it.