



Many chemicals are potentially hazardous to employees' health. These items include cleaning agents, welding and cutting supplies, acids, alkalis, finishing products, and flammables. Employees can be over-exposed to some chemicals through inhalation and some—like carbon tetrachloride—can be absorbed through the skin. Others—like lead—can pose a significant risk when amounts of hand contaminant get transferred to food, cigarettes or any other item put in the mouth.

Hazard Communications Programs



Damage to container labels reduces their usefulness and can lead to mishaps.

Employers are required to inform workers of the potential dangers of hazardous chemicals through implementation of a written “Hazard Communication Program,” or HCP. The HCP requires employers to make a list of all products in the work area that contain hazardous chemicals and to obtain a “material safety data sheet” for each. By law, labels must identify hazardous chemicals and provide hazard warnings for physical and health hazards. If a chemical is transferred into another container, that container must also be properly labeled. Transferred chemicals that are expected to be used the same day by the person who transferred them do not need to be labeled.

Employers should use less hazardous chemicals when effective substitutes are available, and make sure appropriate protective measures are available. In addition an effective hazard determination, conducted as part of the HCP, should be integrated with the chemical purchasing and distribution processes.

Material Safety Data Sheet



A well organized MSDS binder.

An important part of any HCP is for employers to make available to employees a “Material Safety Data Sheet,” or MSDS, of each hazardous chemical product in the work area. An MSDS includes information about the identity of hazardous chemicals in the product, flammability and other physical hazards, possible health effects, recommended exposure controls (including personal protective equipment), what to do if a person comes in contact with the chemical, how to properly handle it, and what to do if the material is spilled or ignited.

Although MSDS formats may vary, all are required to contain certain categories of information: a list of ingredients, their exposure limits, signs and symptoms of exposures, medical conditions that can be aggravated by exposure, its routes of entry into the body, precautions for safe handling and use, proper personal protective equipment and other controls, and emergency and first aid procedures.

Employers are also responsible for ensuring that MSDSs are available to employees and for ensuring all containers have adequate labels. MSDSs are often provided in alphabetical order within a binder kept in an area of the work area where they can be quickly used, especially during an emergency. Each employee must also be provided with effective information and training on the nature of physical and health hazards present, operations where hazardous chemicals are present during routine and non-routine tasks, and the location and availability of the written HCP. Employees must be provided with documented information and training at the time of their initial assignment, and whenever a new physical or health hazard is introduced into their work area.

Proper Handling and Storage



An unlabeled bottle in a storage cabinet for flammable chemicals risks misuse or consumption.

Proper handling and storage also plays an important role in chemical safety. Chemicals need to be handled, transported and stored in a responsible manner to ensure the chemical stays in its container. Only compatible materials should be stored together. For example, strong oxidizers should not be stored with organic materials. All flammable liquids and aerosols need to be stored in specially designed flammable storage cabinets.

IMPORTANT NOTICE - The information and suggestions presented by Michigan Millers Mutual Insurance Company in this Safety Talks Toolkit Bulletin are for your consideration in your loss prevention efforts. They are not intended to be complete or definitive in identifying all hazards associated with your business, preventing workplace accidents, or complying with any safety related, or other, laws or regulations. You are encouraged to alter them to fit the specific hazards of your business and to have your legal counsel review all of your plans and company policies.