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## HAZARD COMMUNICATION REVISITED: IS YOUR PROGRAM COMPLETE?

*By SeaBright Insurance Loss Control*

**T**housands of chemicals are used in our country today, both at home and at work. Chemical products are so common, in fact, that both employers and workers are often indifferent to the potential dangers of unprotected exposure. Disaster, and even death, can occur if chemicals are mistakenly combined. Cumulative use of some products can create a serious, lifetime chemical sensitivity for some people. Employees who are ignorant of these risks may unknowingly risk their own health, or even the health of family members. For this reason, it is only *right* that individuals understand the potential hazards associated with the chemicals they are asked to work with, and how to protect themselves.

The Hazard Communication Standard, also known as the Employee “Right to Know” Law, or “Hazcom,” was first implemented by the Federal Government in 1983. This law, 29 CFR 1910.1200, holds employers responsible for informing and training employees about the hazardous chemicals used in their operations. Even though this law has been in effect for twenty-five years, Hazard Communication is still the *second* ranked OSHA violation with 5,586 citations issued in 2006. Each year citations and penalties are assessed to companies for failing to comply with the basic elements of this standard.

Although many organizations have addressed the issue of Hazcom with their employees, deficiencies often exist within their hazard communication system. Most firms have only dealt partially with the important elements of the standard. The most commonly issued OSHA citations involve the lack of a formal written program, failure to train employees about the chemicals they work with, poor availability of Material Safety Data Sheets (MSDS), and lack of properly labeled chemical containers.

There are seven key elements of the Hazard Communication standard that employers must implement and document:

1. Complete an inventory of chemicals used in the facility;
2. Identify containers of chemicals with signs and labels;
3. Assure that Material Safety Data Sheets (MSDS) are available for each chemical;
4. Provide hazard communication training to exposed employees;
5. Develop a written hazard communication program that defines policies and procedures;
6. Develop a spill or emergency plan;
7. Establish methods of informing outside contractors of the hazardous chemicals they may be exposed to in your facility.

### **1. The Chemical & Hazard Inventory**

An evaluation of all processes carried out at your facility will help identify the chemicals used within your organization. This includes products used in cleaning and maintenance activities *if* such use is part of the employee’s expected work activities--as opposed to a product brought in for personal cleaning of a workstation area. In general, if the chemical is used in bulk or is required as part of the job duties then it must be inventoried. If you have multiple facilities or departments, the chemical inventory should be site-specific. Assign one or more responsible individuals to collect this information at all locations. This may mean a little more work initially, but will simplify training later on.

Individuals should also be assigned responsibility for identifying and documenting any new chemicals that are introduced to your facility or old chemicals, which are no longer used. The inventory may be alphabetical, or grouped under major categories such as abrasives, cleaners, fuels, metals, etc. Each chemical listed should make reference to a notebook or file where the MSDS for that chemical can be found. The inventory process can also be used to eliminate chemicals that are no longer used or have been replaced with less hazardous alternatives. Limiting which chemicals can be purchased also provides a measure of control when creating a chemical inventory.

Some states such as Alaska have expanded the “Right to Know” standards to include hazardous “Physical Agents” which may be unsafe to workers. These physical agents include high levels of noise, heat stress, cold stress, microwave/radio frequency radiation, ionizing radiation, ultra-violet radiation, hand-arm vibration, and lasers.

## **2. Signs and Labels**

All containers of hazardous chemicals must be identified with clearly marked labels so that no mistake will be made regarding the contents. The three basic purposes of these labels are to:

- Identify the chemical within containers;
- Inform individuals of any potential dangers;
- Identify proper precautions or protective equipment to be used in handling the chemical.

Recommended labels for primary chemical containers include the National Fire Protection Association (NFPA) 704M formats, or the Color Bar type labels which include color and number designations for describing the type and degree of hazard present. Typical color codes are:

- Blue - indicates a health hazard
- Red - indicates a fire hazard
- Yellow - indicates a reactivity hazard
- White - indicates a specific hazard.

Number codes within the color areas indicate the degree of that specific hazard:

- “0” means a minimal hazard;
- “1-3” designates increasing degrees of severity;
- “4” means a severe hazard.

**Secondary Containers:** It is also very important for employees to understand the importance of labeling secondary, or “transfer” containers. The standard explains that transfer containers do not require labeling if the chemicals within them are used up by individual employees during their work shift. However, unlabeled or mislabeled containers with remaining material are often left abandoned during busy, high-pressure activities. Since this could create a hazard for anyone who comes upon such a container, it is prudent to establish a policy ensuring that *any* secondary container is labeled with the name of the chemical it contains. Some companies find it useful to coordinate container types by color, i.e. only red containers are used for flammables.

## **3. Material Safety Data Sheets**

An MSDS must be available for every substance identified on your chemical inventory, and accessible to all exposed employees. If you are missing any of these, they can be acquired from the chemical supplier or the manufacturer. Employers should also inform their suppliers that they will reject any new chemicals which do not have proper identification labels attached to the containers. The MSDS file must also include the Physical Agent Data Sheets (PADS) required by some states, and mentioned above. PADS should be available through your State’s OSHA office.

Most employers have collected MSDS’ for the chemicals they use, and placed these in a binder or a computer system somewhere within the facility. These data sheets must be available to supervisors and employees at all times. Several companies provide services for online or telephone access to MSDS files. These companies take your inventory and maintain current MSDS files available to your employees via a toll free number. The problem with Material Safety Data Sheets, however, is that few people understand the terminology that explains the hazards and precautions. Terms found in the eight or nine sections of the MSDS are rarely “user friendly” or part of everyday language.

The MSDS sections are:

1. Chemical Identification
2. Hazardous Ingredients
3. Physical Data
4. Fire and Explosion Data
5. Health Hazards
6. Reactivity Data
7. Spill or Leak Procedures
8. Special Protection and
9. Special Precautions.

For those of us who are non-chemists—which means most of us—it's helpful to include a glossary of terms within the binder of the MSDS, to define complex terminology that we're not usually familiar with. If this glossary is kept in the same location as the MSDS it provides a valuable reference source.

#### **4. Employee Training**

Employees must be trained to properly use the chemicals or the hazardous physical agents they are working with. They must understand:

- The nature of the chemicals they work with;
- Needed personal protective equipment (PPE);
- Additional precautions when using chemicals;
- First aid and emergency steps to take if needed;
- The location of the MSDS file or binder;
- Who is responsible for answering questions regarding MSDS, chemicals, or PPE.

Any new person to your department or facility must have training that is specific to the chemicals used at that location. Specific procedures or engineering controls used for handling chemicals and minimizing exposures must be communicated to employees, both in training and in the written program.

Although not required by the standard, it is recommended that all employees be given an annual review of the Hazard Communication System and chemical handling procedures for your facility, as part of your regular safety training curriculum. More experienced employees can sometimes be asked to help supervisors assure that all co-workers understand and follow proper handling procedures. The names and dates of all who receive training, plus the specific items discussed during each session should be documented.

Many firms incorporate training into their regular weekly or monthly employee safety meetings, by periodically reviewing a specific MSDS during crew meetings throughout the year. Most employees understand and retain information more easily when it is provided in smaller units, rather than all at once.

#### **5. The Written Program**

Of all the elements in the standard, this one is most often neglected, receives the most frequent OSHA citations, and is most critical to the success of your system. Some organizations feel that just because they have given at least *some* training, and have MSDS' at their locations, they are in compliance with the standard, but this is not the case.

Besides the fact that the written portion is a required element of your Hazard Communication Program, it also provides critical basic information to employees. It tells them who is responsible for maintaining updated information regarding the chemical inventory and where the MSDS' in different departments will be located. It identifies who is responsible for training people about proper handling procedures for any hazardous substances in your workplace. This person also becomes a valuable resource for answering specific questions about the proper use of any needed personal protective equipment (PPE).

If applicable, the written program also identifies who is responsible for providing information to outside contractors about the hazards and precautions they must observe while working at any of your company's operations.

In order to make this document most accessible to employees, it's recommended that you include a copy in the same binder or file folder as your MSDS forms, and include an MSDS glossary of terms as well. This provides a single location for all needed information about chemicals in the workplace. The written program identifies who an employee needs to talk to should they have further questions, and the glossary helps people understand many of the terms and scientific jargon that appears on MSDS'.

#### **6. Spill or Emergency Plan**

The spill plan or emergency plan should be included in your written program; outlining what procedures will be followed should a chemical emergency arise. It should identify the most senior person at your site who is responsible for assuring spill containment and

for calling the emergency numbers such as the local fire department's Hazardous Materials team or the national CHEMTREC number at 1-800-424-9300.

Some employers are required to have an Environmental Protection Agency document called a Spill Prevention Control and Countermeasure Plan as a separate document to address bulk chemical storage locations and emergency procedures for spills on their premises. If this document is required for your operations, a professional engineer must certify it. If your facility is close to any navigable or environmentally sensitive waterways, this EPA requirement could apply to you.

## **7. Informing Outside Contractors**

Before any outside contractors begin work on your company's premises, a system should be in place to ensure that they are provided with all appropriate information regarding hazardous chemicals or conditions at your facility. Contractors must also provide you with all necessary information regarding chemical hazards or hazardous work, which they may bring onto your property. One or more designated individuals should be identified in your written plan as having responsibility for gathering and communicating this information to each contractor prior to any work being done on your location.

**Follow The Guidelines.** There is no question that firms which utilize a large variety of chemicals find implementing the Hazcom program a significant undertaking. Yet, it is not difficult to comply with the Hazard Communication Standard for general industry (29 CFR 1910.1200) or the construction industry (29 CFR 1926.59) if you follow the guidelines. It does mean, however, that responsible staff must dedicate time and resources to review the standard, inventory their chemicals, obtain MSDS', develop training, and create a written program.

If your system is deficient in any one of these critical areas, your SeaBright Loss Control Consultant can help you, by providing sample policies, procedures and forms to help you customize a user-friendly program that is specific to your needs. Both state and federal OSHA agencies also provide easy to follow program development guidelines.

It is well worth the effort it takes to be in compliance with Hazcom regulations, considering the waste of management time that can be involved with handling OSHA inspections, responding to citations, attending information gathering meetings or conferences, or paying OSHA fines. But most importantly, you will be establishing formal procedures, which will help protect the life and health of people you know and care about—your employees.