Chemical Hazard Communication Compliance requirements for manufacturers, distributors, and employers
Introduction

- The Occupational Safety and Health Administration's (OSHA's) Hazard Communication Standard (HCS) is based on a simple concept - that employees have both a need and a right to know the hazards and identities of the chemicals they are exposed to when working.

- They also need to know what protective measures are available to prevent adverse effects from occurring.

- The HCS is designed to provide employees with the information they need.
Knowledge acquired under the HCS will help employers provide safer workplaces for their employees.

When employers have information about the chemicals being used, they can take steps to reduce exposures, substitute less hazardous materials, and establish proper work practices.

These efforts will help prevent the occurrence of work-related illnesses and injuries caused by chemicals.
Introduction

- The HCS addresses the issues of evaluating and communicating hazards to workers.

- Evaluation of chemical hazards involves a number of technical concepts, and is a process that requires the professional judgement of experts.

- The HCS is designed so that employers who simply use chemicals, rather than produce or import them, are not required to evaluate the hazards of those chemicals.
Introduction

- Hazard determination is the responsibility of the producers and importers of the materials.
- Chemical producers and importers are then required to provide the hazard information to employers that purchase their products.
Objectives

At the end of this Chemical Hazard Communication Compliance module, you should be able to:

- Understand the requirements for manufacturers, distributors, and employers
- Understand staff responsibilities
- Determine ways to identify hazardous chemicals in the workplace
- Identify the key items/actions that must be implemented as part of the hazardous communication program.
Introduction

- Employers that don't produce or import chemicals need only focus on those parts of the rule that deal with establishing a workplace program and communicating information to their workers.

- This module provides such employers a general guide to help determine what's required under the rule.

- It does not supplant or substitute for the regulatory provisions, but rather provides a simplified outline of the steps an average employer would follow to meet those requirements.
Introduction

- This module covers the following sections:
  - Becoming Familiar with the Rule
  - Identifying Responsible Staff
  - Identifying Workplace Hazardous Chemicals
  - The Hazard Communication Program.
The HCS or "the rule" is long, and some parts of it are technical, but the basic concepts are simple. In fact, the requirements reflect what many employers have been doing for years.

You may find that you are already largely in compliance with many of the provisions, and will simply have to modify your existing programs somewhat.

If you are operating in an OSHA-approved State Plan State, you must comply with the State's requirements, which may be different than those of the Federal rule.
Many of the State Plan States had hazard communication or "right-to-know" laws prior to promulgation of the Federal rule.

Employers in State Plan States should contact their State OSHA offices for more information regarding applicable requirements.
The HCS Rule requires ...

- The HCS requires information to be prepared and transmitted regarding all hazardous chemicals.
- The HCS covers both physical hazards (such as flammability), and health hazards (such as irritation, lung damage, and cancer).
- Most chemicals used in the workplace have some hazard potential, and thus will be covered by the rule.
- One difference between this rule and many others adopted by OSHA is that this one is performance-oriented.
- That means that you have the flexibility to adapt the rule to the needs of your workplace, rather than having to follow specific, rigid requirements.
- It also means that you have to exercise more judgment to implement an appropriate and effective program.
The HCS's Design is ...

- The Hazard Communication Standard's design is simple.
- Chemical manufacturers and importers must evaluate the hazards of the chemicals they produce or import.
- Using that information, they must then prepare labels for containers, and more detailed technical bulletins called Material Safety Data Sheets (MSDS).
- Chemical manufacturers, importers, and distributors of hazardous chemicals are all required to provide the appropriate labels and Material Safety Data Sheets to the employers to whom they ship the chemicals.
The HCS’s Design is …

- The information is to be provided automatically.
- Every container of hazardous chemicals you receive must be labeled, tagged or marked with the required information.
- Your suppliers must also send you a properly completed Material Safety Data Sheet at the time of the chemical’s first shipment, and with the next shipment after the MSDS is updated with new and significant information about the hazards.
You can rely on information …

- You can rely on the information received from your suppliers.

- You have no independent duty to analyze any chemical or evaluate its hazards.

- Employers that "use" hazardous chemicals must have a program to ensure the information is provided to exposed employees.
You can rely on information …

- "Use" means to:
  - Package
  - Handle
  - React
  - Transfer.

- This is an intentionally broad scope, and includes any situation where a chemical is present in such a way that employees may be exposed under normal conditions of use or in a foreseeable emergency.
The requirements of the HCS

The requirements of the Hazard Communication Standard that deal specifically with the hazard communication program can be found in the following portions of the standard:

- Paragraph (e) - written hazard communication programs
- Paragraph (f) - labels and other forms of warning
- Paragraph (g) - Material Safety Data Sheets
- Paragraph (h) - employee information and training.
The requirements of the HCS

- The requirements of these paragraphs should be the focus of your attention.

- Concentrate on becoming familiar with them, using paragraphs (b) scope and application, and (c) definitions, as references when needed to help explain the provisions.
There are two types of work operations on which the Hazard Communication Standard provides limited coverage.

These are laboratories and operations where chemicals are only handled in sealed containers (e.g., a warehouse).

The limited provisions for these workplaces can be found in paragraph (b), scope and application.

Basically, employers having these types of work operations need to only:
There are two types of work …

- Keep labels on containers as they are received
- Maintain and provide employee access to material safety data sheets that are received
- Provide information and training for employees.
- The employers conducting these work operations do not need to have written hazard communication programs or lists of chemicals for these types of operations.
It is the employer’s obligation to provide coverage for workers to the degree required for the operations involved.

Any limited coverage does not affect the employer's duties as a distributor of chemicals.

For example, a distributor may have warehouse operations where employees would be protected under the limited sealed container provisions.

In this situation, requirements for obtaining and maintaining MSDSs are limited to providing access to those received with containers while the substance is in the workplace, and requesting MSDSs when employees request access for those not received with the containers.

However, as a distributor of hazardous chemicals, that employer will still have responsibilities for providing MSDSs to downstream customers at the time of the first shipment and when the MSDS is updated.

Therefore, although they may not be required for the employees in the work operation, the distributor may, nevertheless, have to have MSDSs to satisfy other requirements of the rule.
Quiz Question:

If the information from a supplier is inadequate, in some situations you may have to analyze the chemical or evaluate the hazards of it.

- True
- False
Quiz Question:

Employers, whose operations are limited to laboratories and handling chemicals in only sealed containers, are required to provide coverage limited to which of the following:

- Maintaining and providing employee access to Material Safety Data Sheets for materials received
- Providing information and training for employees
- Providing written hazard communication programs or lists of chemicals
- Keeping labels on containers as they are received
Identifying Responsible Staff

- Compliance with the Hazard Communication Standard is a continuous program in your facility not just a "one shot deal."
- In order to have a successful program, it will be necessary to assign responsibility for both the initial and ongoing activities required to comply with the rule.
- In some cases, these activities may already be part of current job assignments.
- For example, site supervisors are frequently responsible for on-the-job training sessions.
- If you identify the responsible employees early, you can develop a better plan of action which will result in an effective program design.
Identifying Responsible Staff

- Involving affected employees will enhance the evaluation of your program’s effectiveness.

- For any safety and health program, success depends on commitment at every level of the organization.

- This is particularly true for hazard communication, where success requires a change in behavior.

- This will only occur if employers understand the program, are committed to its success, and are motivated by the information presentation method.
Identifying Workplace Hazardous Chemicals

- The Hazard Communication Standard requires there to be a list of hazardous chemicals found in the workplace as part of the written hazard communication program.

- The list will eventually serve as an inventory of everything for which a MSDS must be maintained.

- At this point, however, preparing the list will help you complete the rest of the program.
Identifying Workplace Hazardous Chemicals

- It will give you some idea of the program’s scope required for compliance in your facility.

- The best way to prepare a comprehensive list is to survey the workplace.

- Purchasing records may also help, and employers should establish procedures to ensure that in the future purchasing procedures result in MSDSs being received before a material is used in the workplace.
Identifying Workplace Hazardous Chemicals

- The broadest possible perspective should be taken when doing the hazardous chemical survey.
- Sometimes people think of "chemicals" as being only liquids in containers.
- The HCS covers chemicals in all physical forms - liquids, solids, gases, vapors, fumes and mists - whether they are "contained" or not.
- The hazardous nature of the chemical and the potential for exposure are the factors which determine whether a chemical is covered.
- If it's not hazardous, it's not covered.
- If there is no potential for exposure (e.g., the chemical is inextricably bound and cannot be released), the rule does not cover the chemical.
Identifying Workplace Hazardous Chemicals

- Look around. Identify chemicals in containers, including pipes, but also think about chemicals generated in the work operations.
- For example, welding fumes, dusts, and exhaust fumes are all sources of chemical exposures.
- Read labels provided by the suppliers for hazard information.
- Make a list of all chemicals in the workplace that are potentially hazardous.
- For your own information and planning, you may also want to note on the list the location(s) of the products within the workplace, and an indication of the hazards as found on the label.
This will help you as you prepare the rest of your program.

Paragraph (b) of the HCS, scope and application, includes exemptions for various chemicals or workplace situations.

After compiling the complete list of chemicals, you should review paragraph (b) to determine if any of the items can be eliminated from the list because they are exempted materials.

For example, food, drugs and cosmetics brought into the workplace for employee consumption are exempt; as well as rubbing alcohol in the first aid kit.
Once you have compiled as complete a list as possible of the potentially hazardous chemicals in the workplace, the next step is to determine if you have received Material Safety Data Sheets for all of them.

Check your files against the inventory you have just compiled. If any MSDS's are missing, contact your supplier and request one.

It is a good idea to document these requests, either by copy of a letter or a note regarding telephone conversations.

If you have MSDSs for chemicals that are not in your list, figure out why.
Identifying Workplace Hazardous Chemicals

- Maybe you don't use the chemical anymore.
- Or maybe you missed it in your survey. Some suppliers do provide MSDSs for products that are not hazardous.
- You do not have to maintain these.
- You should not allow employees to use any chemicals for which you have not received a MSDS.
- The MSDS provides information you need to ensure proper protective measures are implemented prior to exposure.
Quiz Question:

Compliance with the Hazard Communication Standard is not a "one shot deal."

- True
- False
Quiz Question:

- The Hazard Communication Standard requires a list of hazardous chemicals in the workplace to be created as part of the written hazard communication program.
  
  - True
  - False
The HCS Program

- All workplaces where employees are exposed to hazardous chemicals must have a written plan which describes how the standard will be implemented in that facility.

- Preparation of a plan is not just a paper exercise – all of the elements must be implemented in the workplace in order to be in compliance with the rule.

- See paragraph (e) of the HCS for the specific requirements regarding written hazard communication programs.
The HCS Program

- The only work operations which do not have to comply with the written plan are laboratories and work operations where employees only handle chemicals in sealed containers.

- See paragraph (b), scope and application, for the specific requirements for these two types of workplaces.

- The plan does not have to be lengthy or complicated. It is intended to be a blueprint for implementation of your program - an assurance that all aspects of the requirements have been addressed.

- The four major topics of preparing and implementing a hazard communication program are shown to the left.
Many trade associations and other professional groups have provided sample programs and other assistance materials to affected employers.

These have been very helpful to many employers since they tend to be tailored to the particular industry involved.

You may wish to investigate whether your industry trade groups have developed such materials.
Introduction

- Although such general guidance may be helpful, you must remember that the written program has to reflect what you are doing in your workplace.

- Therefore, if you use a generic program it must be adapted to address your facility.

- For example, the written plan must list the chemicals present at the site, indicate who is to be responsible for the various aspects of the program in your facility, and indicate where written materials will be made available to employees.
Introduction

- If OSHA inspects your workplace for compliance with the HCS, the OSHA compliance officer will ask to see your written plan at the outset of the inspection.

- In general, the following items will be considered in evaluating your program.

- The written program must describe how the requirements for labels and other forms of warning, MSDSs, and employee information and training are going to be met in your facility.

- The following screens describe the type of information compliance officers will be looking for to determine if the elements of the hazard communication program have been properly addressed.
Labels and Other Forms of Warning

- In-plant containers of hazardous chemicals must be labeled, tagged, or marked with the identity of the material and appropriate hazard warnings.

- Chemical manufacturers, importers, and distributors are required to ensure that every container of hazardous chemicals they ship is appropriately labeled with such information and with the name and address of the producer or other responsible party.
Labels and Other Forms of Warning

- Employers purchasing chemicals can rely on the labels provided by their suppliers. If the material is subsequently transferred by the employer from a labeled container to another container, the employer will have to label that container unless it is subject to the portable container exemption.

- See paragraph (f) of the Hazard Communication Standard for specific labeling requirements.
The primary information obtained from an OSHA-required label is the material’s identity and appropriate hazard warnings.

The identity is any term which appears on the label, the MSDS, and the list of chemicals; and thus, links these three sources of information.

The identity used by the supplier may be a common or trade name ("Black Magic Formula"), or a chemical name (1,1,1,-trichloroethane).
Labels and Other Forms of Warning

- The hazard warning is a brief statement of the hazardous effects of the chemical ("flammable," "causes lung damage").

- Labels frequently contain other information, such as precautionary measures ("do not use near open flame"), but this information is provided voluntarily and is not required by the rule.

- Labels must be legible, and prominently displayed.

- There are no specific requirements for size or color, or any specified text.
Labels and Other Forms of Warning

With the labeling requirements in mind, the compliance officer will be looking for the following types of information to ensure that labeling will be properly implemented in your facility:

- Designation of person(s) responsible for ensuring labeling of in-plant containers
- Designation of person(s) responsible for ensuring labeling of any shipped containers
- Description of labeling system(s) used
- Description of written alternatives to labeling of in-plant containers (if used)
- Procedures to review and update label information when necessary.
Labels and Other Forms of Warning

- Employers that are purchasing and using hazardous chemicals - rather than producing or distributing them - will primarily be concerned with ensuring that every purchased container is labeled.

- If materials are transferred into other containers, the employer must ensure that these are labeled as well, unless they fall under the portable container exemption (paragraph (f)(7)).

- In terms of labeling systems, you can simply choose to use the labels provided by your suppliers on the containers.
Labels and Other Forms of Warning

- These will generally be verbal text labels, and do not usually include numerical rating systems or symbols that require special training.

- All in-plant containers of hazardous chemicals must be labeled at all times.

- Therefore, it is important to designate someone to be responsible for ensuring that the labels are maintained as required on the containers in your facility, and that newly purchased materials are checked for labels prior to use.
Material Safety Data Sheets

- Chemical manufacturers and importers are required to obtain or develop a Material Safety Data Sheet for each hazardous chemical they produce or import.
- Distributors are responsible for ensuring that their customers are provided a copy of these MSDSs.
- Employers must have a MSDS for each hazardous chemical which they use.
- Employers may rely on the information received from their suppliers.
- The specific requirements for Material Safety Data Sheets are in paragraph (g) of the Hazard Communication Standard.
Material Safety Data Sheets

- There is no specified format for the MSDS under the rule, although there are specific information requirements.

- OSHA has developed a non-mandatory format, OSHA Form 174, which may be used by chemical manufacturers and importers to comply with the rule.

- The MSDS must be in English.

- You are entitled to receive a data sheet from your supplier which includes all of the information required under the rule.
Material Safety Data Sheets

- If you do not receive one automatically, you should request one.

- If you receive one that is obviously inadequate, with, for example, blank spaces that are not completed, you should request an appropriately completed one.

- If your request for a data sheet or for a corrected data sheet does not produce the information needed, you should contact your local OSHA Area Office for assistance in obtaining the MSDS.
Material Safety Data Sheets

- Under the rule the MSDS is to provide detailed information on each hazardous chemical, including:
  - Its potential hazardous effects
  - Its physical and chemical characteristics
  - Recommendations for appropriate protective measures.
  - This information should be useful to you as the employer responsible for designing protective programs, as well as to the workers.
Material Safety Data Sheets

- If you are not familiar with Material Safety Data Sheets and with chemical terminology, you may need to learn to use them yourself.

- A glossary of MSDS terms may be helpful in this regard.

- Generally speaking, most employers using hazardous chemicals will primarily be concerned with MSDS information regarding hazardous effects and recommended protective measures.

- Focus on the sections of the MSDS that are applicable to your situation.
Material Safety Data Sheets

- MSDSs must be readily accessible to employees during their work shifts in their work areas.

- This may be accomplished in a way appropriate for your particular workplace.

- Some employers keep the MSDSs in a binder in a central location (e.g., in the pick up truck on a construction site).

- Others, particularly in workplaces with large numbers of chemicals, computerize the information and provide access through terminals.

- As long as employees can get the information when they need it, any approach may be used.
Material Safety Data Sheets

- Employees must have access to the MSDSs themselves - simply having a system where information can be read to them over the phone is only permitted under the mobile worksite provision, paragraph (g)(9), when employees must travel between workplaces during the shift.

- In this situation, they must have access to the MSDSs prior to leaving the primary worksite, and when they return.

- The telephone system is an emergency arrangement
Material Safety Data Sheets

In order to ensure that you have a current MSDS for each chemical in the plant and that employee access is provided as required, the compliance officers will be looking for the following types of information in your written program:

- Designation of person(s) responsible for obtaining and maintaining the MSDSs
- How such sheets are to be maintained in the workplace (e.g., in notebooks in the work area(s) or in a computer with terminal access), and how employees can obtain access to them when they are in their work area during the work shift
Material Safety Data Sheets

- Procedures to follow when the MSDS is not received at the time of the first shipment
- For producers, procedures to update the MSDS when new and significant health information is found
- Description of alternatives to actual data sheets in the workplace, if used.
Material Safety Data Sheets

- For employers using hazardous chemicals, the most important aspect of the written program in terms of MSDSs, is to ensure that someone is responsible for obtaining and maintaining the MSDSs for every hazardous chemical in the workplace.

- The list of hazardous chemicals required to be maintained as part of the written program will serve as an inventory.

- As new chemicals are purchased, the list should be updated.

- Many companies have found it convenient to include on their purchase orders the name and address of the person designated in their company to receive MSDSs.
Quiz Question:

The primary information to be obtained from an OSHA-required label is the material’s identity and appropriate hazard warnings.

- True
- False
Quiz Question:

Employers are responsible for ensuring that their customers are provided a copy of the Material Safety Data Sheet.

- True
- False
Quiz Question:

- OSHA has developed a mandatory format, OSHA Form 174, which must be used by chemical manufacturers and importers.

  - True
  - False
Quiz Question:

- MSDS’s must be readily accessible to employees when they are in their work areas during their work shifts.
  - True
  - False
Employee Information and Training

- Each employee must be provided information and training:
- Prior to initial assignment to work with potential exposure to hazardous chemicals
- Whenever the hazard changes.
- "Exposure" or "exposed" under the rule means that "an employee is subjected to a hazardous chemical in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etc.) and includes potential (e.g., accidental or possible) exposure."
Employee Information and Training

- See paragraph (h) of the standard for specific requirements. Information and training may be done either by individual chemical, or by categories of hazards (such as flammability or carcinogenicity).
- If there are only a few chemicals in the workplace, then you may want to discuss each one individually.
- Where there are large number of chemicals, or the chemicals change frequently, you will probably want to train employees based on general hazard categories (e.g., flammable liquids, corrosive materials, carcinogens).
- Employees will have access to the substance-specific information on the labels and MSDSs.
Employee Information and Training

- Information and training are a critical part of the hazard communication program. Information regarding hazards and protective measures is provided to workers through written labels and MSDSs.

However, through effective information and training, workers will learn to:

- Read and understand such information
- Determine how it can be obtained and used in their own workplaces
- Understand the risks of exposure to the chemicals in their workplace as well as the ways to protect themselves.
Employee Information and Training

- A properly conducted training program will ensure comprehension and understanding. It is not sufficient to just read material to the workers, or to simply hand them material to read.

- You want to create a climate where workers feel free to ask questions.

- This will help you to ensure that the information is understood. You must always remember that the underlying purpose of the HCS is to reduce the incidence of chemical source illnesses and injuries.

- This will be accomplished by modifying behavior through the provision of hazard information and information about protective measures.

- If your program works, you and your workers will better understand the chemical hazards within the workplace.

- The procedures you establish regarding, for example, purchasing, storage, and handling of these chemicals will improve, and thereby reduce the risks posed to employees exposed to the chemical hazards involved.

- Furthermore, your workers’ comprehension will also be increased, and proper work practices will be followed in your workplace.
Employee Information and Training

- If you are going to do the training yourself, you will have to understand the material and be prepared to motivate the workers to learn.

- More information regarding appropriate training can be found in OSHA Publication No. 2254 which contains voluntary training guidelines.

- In reviewing your written program with regard to information and training, the following items need to be considered:
  - Designation of person(s) responsible for conducting training
  - Program format to be used (audiovisuals, classroom instruction, etc.)
Employee Information and Training

- Elements of the training program (should be consistent with the elements in paragraph (h) of the HCS)

- Procedure to train new employees at the time of their initial assignment to work with a hazardous chemical, and to train employees when a new hazard is introduced into the workplace.
Employee Information and Training

- The written program should provide enough detail about the employer's plans for employee information and training to assess whether or not a good faith effort is being made to train employees.

- OSHA does not require that employees know every chemical hazard in the workplace.

- In general, the most important aspects of training under the HCS are to ensure that employees:
  - Are aware that they are exposed to hazardous chemicals
Employee Information and Training

- Know how to read and use labels and material safety data sheets
- Are following the employer’s established appropriate protective measures.
- OSHA compliance officers will be talking to employees to determine if they have received training, if they know they are exposed to hazardous chemicals, and if they know where to obtain substance-specific information on labels and MSDSs.
Employee Information and Training

- The rule does not require employers to maintain records of employee training, but many employers choose to do so.
- This may help you monitor your own program to ensure that all employees are appropriately trained.
- If you already have a training program, you may simply have to supplement it with whatever additional information is required under the HCS.
- For example, construction employers that are already in compliance with the construction standard (29 CFR 1926.21) will have little extra training to do.
Employee Information and Training

- An employer can provide employees information and training through whatever means found appropriate and protective.
- Although there would always have to be some training on-site (such as informing employees of the location and availability of the written program and MSDSs), employee training may be satisfied in part by general training about the requirements of the HCS and about chemical hazards on the job.
- These are often presented by trade associations, unions, colleges, and professional schools.
Employee Information and Training

- The employer is always ultimately responsible for ensuring that employees are adequately trained.

- Previous training, education, and experience of a worker may relieve the employer from some of the training burdens.

- If the compliance officer finds that the training is deficient, the employer will be cited for the deficiency regardless of who actually provided the training.
Other Requirements

In addition, when compliance officers evaluate training they will ask the following:

- Does a hazardous chemicals list exist in each work area or at a central location?
- Are employee hazard information methods for non-routine tasks outlined?
- Are employees informed of the hazards associated with chemicals contained in unlabeled pipes in their work areas?
- On multi-employer worksites, has the employer provided other employers with information about labeling systems and precautionary measures where the other employers have employees exposed to the initial employer's chemicals?
- Is the written program made available to employees and their designated representatives?

If your program adequately addresses the means of communicating information to employees in your workplace, and provides answers to the basic questions outlined above, it will be found to be in compliance with the rule.
Quiz Question:

In reviewing your written program with regard to information and training, the following items need to be considered:

- Elements of the training program
- Procedure to train employees
- Employees are able to recite all known chemical hazards in the workplace
- Format of the program to be used (audiovisuals, classroom instruction, etc.)
Quiz Question:

- Information and training must be done by each individual chemical.
  
  - True
  - False
Quiz Question:

The Hazard Communication Standard requires employers to maintain records of employee training for three years.

- True
- False
In this module we discussed:

- Becoming Familiar with the Rule
- Identifying Responsible Staff
- Identifying Workplace Hazardous Chemicals
- The Hazard Communication Program.