Access to Information about Hazardous and Toxic Substances

Table of Contents

APPENDICES

Access to Information about Hazardous and Toxic Substances

Summary of Requirements

- Compile a chemical information list and submit it to Maryland Department of the Environment.
- Obtain a safety data sheet (SDS) for each hazardous substance on the chemical information list.
- Add new chemicals to the list within 30 days of introduction into the workplace.
- Realphabetize and resubmit a new chemical information list every two years.
- Maintain each chemical information list for at least 40 years.
- Ensure that each container of hazardous chemicals in the workplace is labeled, tagged or marked with a product identifier for the hazardous chemical, a signal word, hazard statement(s), pictogram(s), precautionary statement(s), and manufacturer information.
- Ensure that the chemical information list is accessible to employees and designated representatives within one working day of a request.
- Make safety data sheets readily accessible to employees during their work shift.
- Provide employees with information and training on hazardous chemicals in their work area.
- Develop, implement, and maintain at the workplace a written hazard communication program that includes provisions for compiling and submitting a list of hazardous chemicals, collection and availability of safety data sheets, container labeling, and an employee training program. The written hazard communication program also must describe the means the employer will use to inform employees of the hazards of non-routine tasks, the hazards associated with chemicals in unlabeled pipes, and how the employer intends to inform other employers on multi-employer worksites of chemical hazards they may be exposed to.

In addition, manufacturers and importers must:

- Classify chemicals produced in the workplace to determine whether they are hazardous.
- Provide a safety data sheet to each purchaser of a hazardous chemical.
- Properly label each container of hazardous chemicals leaving the workplace.
- Maintain an SDS for each hazardous chemical in the workplace and ensure that it is readily accessible to employees in their work areas during each work shift.

Employer Guidelines

In 1984 the Maryland General Assembly enacted legislation designed to give employees information about hazardous substances in their workplaces. This law, sometimes called the employee “Right-to-Know" Law, was amended in 1990 to include the provisions of the federal standard, 29 CFR 1910.1200. The law was further amended in 2012 to include the changes to the federal stanadrd, 29 CFR 1910.1200, as a result of the implementation of the “Globally Harmonized System of Classidication and Labeling of Chemicals (GHS)”. The Right-to-Know Law is part of the Maryland Occupational Safety and Health (MOSH) Act, and the provisions of the MOSH Act apply to the administration and enforcement of this law.

The “Right-to-Know” law requires employers to obtain, maintain, and submit certain information. It applies to most employers in the State and covers more than 50,000 chemicals, as well as hundreds of thousands of products.

The definition of hazardous chemicals includes physical hazards such as compressed oxidizers, as well as such health hazards as carcinogens, irritants, corrosives, sensitizers and agents which may damage the lungs, skin, eyes or mucous membranes. With the addition of the GHS information several new classifications of hazardous chemicals have been included; simple asphyxiant, combustible dust, pyrophoric gas, and hazards not otherwise classified. Also covered are consumer products when they are used in a form, concentration or manner different from that used by consumers, or when employee exposure is greater than that of a consumer.

Five Most Frequently Heard Misconceptions About the Employee Right-to-Know Law

- **"We don't have any hazardous chemicals in our workplace."**

  Most places of employment in the State have some substances that meet the definition of a hazardous chemical. Products such as paints, glues, cleaning solutions, compressed gases, floor cleaners, and many other commonly found substances generally are considered hazardous chemicals under the Employee Right-to-Know Law.

- **"We only use small quantities of hazardous chemicals; we don't have any 55 gallon drums of chemicals."**

  This law does not contain quantity or size limitations. If you use or store hazardous chemicals in your workplace, you must comply with this law.

- **"We already filed the form you sent us about hazardous waste."**

The Employee Right-to-Know Law is separate and distinct from other laws relating to hazardous chemicals administered by the Department of the Environment. Submitting the "Inventory Report for the State Toxic Substances Registry System", the "Generator Annual Hazardous Waste Report" or the "Emergency and Hazardous Chemical Inventory Form" required by SARA, does **not** satisfy the requirements of this law.

- **"There are no penalties associated with violating the law! I received a citation but it was just a warning."**

  Wrong! The Employee Right-to-Know Law is an integral part of the MOSH Law. All the procedures and most of the penalties in the MOSH Law may be applied in cases of violations. Since 1984, citations have been issued for thousands of serious violations of this law, all of them with accompanying penalties.

  In addition, any citation, including other-than-serious violations, creates a record that a violation has been found. Failure to correct that violation can carry penalties up to $7,000 per day of non-compliance. Repeated violations also can carry substantial penalties.

- **"I am not a chemist. I can't possibly be expected to know anything about hazardous and toxic substances."**

  You don't have to be a chemist to comply with the Right-to-Know Law. Generally, you will be able to obtain the information you need about hazardous or toxic substances from your manufacturer or distributor, who is required by Maryland law to provide you with safety data sheets for the products you purchase.

IF YOU:

- use or store, handle, package or repackage, distribute, import or sell any hazardous substance, and
- have one or more employees,

AND IF YOU HAVE NOT:

- compiled and submitted a chemical information list,
- ensured that safety data sheets are available,
- trained your employees, or
- prepared and implemented a written hazard communication program,

Please carefully review the requirements of the law and take appropriate steps to comply.

Twelve Steps to Compliance

The following twelve steps provide employers with a guide to achieving compliance with the law and to promoting safe and healthy working conditions for employees.

STEP 1. <u>Make an inventory of all materials.</u>

- Walk around your workplace and prepare a written inventory of all materials that may be hazardous, regardless of quantity.

- As you prepare your inventory, read the container labels and note the name of the product; information about the manufacturer or distributor, such as the name, telephone number, and location; and the general work area where the product is found.

- Do not forget such things as compressed gasses, welding rods and alloy metals. Also check for by-products and intermediate products that may result from a process your company uses.

- Check with the person who purchases supplies to be sure that these materials are included on your list.

STEP 2. <u>Obtain Safety Data Sheets (SDS).</u>

- When your company places its first order for a hazardous chemical, the manufacturer should send a SDS with the initial shipment. Manufacturers and importers are required to provide a SDS with the initial shipment of a product to distributors and purchasers, and must provide updated information with the first shipment after each update. You may have received a SDS previously and, not knowing what it was, thrown it away.

- For each substance noted during the survey for which you do not have a SDS, request a safety data sheet from the manufacturer or distributor. If the request is made verbally, follow up with a letter to document your request.

- If you are a manufacturer or importer, you must classify the hazards of the chemicals you produce or import, and produce or obtain a SDS for products produced or imported at your facility.

STEP 3. <u>Use the information on the safety data sheet to determine the chemical name and to identify the hazards of the substance.</u>

- The chemical name will typically consist of the Chemical Abstract Service (CAS) number that is associated with the individual ingredients that make up the product. They can be found in Section 3: Composition/Information on Ingredients of the SDS.

- The hazards that have been indentified by the manufacturer will generally be found in Section 2: Hazards Identification of the SDS. However be sure to read the entire SDS to determine if there are any decomposition, reaction, or bi-product hazards associated with a chemical.

STEP 4. <u>Prepare a chemical information list.</u>

- Arrange the safety data sheets in alphabetical order by common or trade name.

- Review your inventory to be sure that you include all hazardous materials, even if you have not received a safety data sheet from the manufacturer or distributor.

- Using the safety data sheets and the inventory, prepare a chemical information list for your workplace. The list must:

  - be arranged in alphabetical order according to common name,
  - contain the chemical name,
  - identify the work area in which the hazardous chemical is found, and
  - list the date the product was first brought into the facility or jobsite

- Be sure that the same name or *product identifier* is used on the label, the SDS, and the chemical information list to facilitate access to hazard and emergency information.

- If a product is a consumer product, be sure to consider the frequency of exposure that a typical consumer would have and compare it to the frequency of exposure of your employees. If your employees are exposed more frequently or in greater amounts than the typical consumer, the consumer product must be included on the list.

- See the following section for help in preparing your chemical information list.

STEP 5. <u>Send the chemical information list to Maryland Department of the Environment</u>.

- Be sure to include, at the beginning of the list, the name of your company, a business address, the date of preparation or revision, and the name and telephone number of a contact person. Send the list to:

Maryland Department of the Environment (MDE)
Science Services Administration
Community Right-To-Know Section
1800 Washington Boulevard, Suite 540
Baltimore, MD 21230-1718

- If MDE requests a copy of a SDS, be sure to submit it within five working days of the request. Otherwise you do not have to send the SDS to MDE.

- Be sure to keep proof that you submitted the list to MDE.

- Retain a copy of the list and the SDS at your workplace.

- By law, upon request, an employer must provide access to and copies of the chemical information list, the written hazard communication program, and safety data sheets to employees, designated representatives of employees, MOSH inspectors, fire officials, and to independent contractors and other employers sharing a workplace. Fire officials may request a list arranged by work area.

STEP 6. <u>Develop a system for updating the list.</u>

- As each new substance arrives in your workplace, be sure to obtain the SDS. It may be appropriate to include on the initial purchase order for a hazardous chemical, as a condition of purchase, the requirement to provide an appropriate SDS. Be sure that purchasing personnel notify you of any new products.

- When new materials are obtained, you must add them to the chemical list within 30 days. Be sure to include the date the chemical is added to the list.

- Realphabetize the chemical list every two years and submit the new list to MDE.

STEP 7. <u>Conduct a hazard assessment.</u>

- Go through your plant and identify each process in which a hazardous chemical is used.

- Using the hazard information on the SDS, consider whether appropriate engineering controls, work practices, personal protective equipment, emergency procedures, and fire control procedures are in place to ensure the safety and health of your employees.

- Certify that this hazard assessment was done. Include on the certification the name and address of the facility, the date of the assessment, and the name and signature of the person performing the assessment.

STEP 8. <u>Check to see that all containers are labeled.</u>

- Ensure that all containers of hazardous substances in the workplace are labeled, tagged, or marked. The label must include the product identifier, signal word, hazard statement(s), pictogram(s), precautionary statement(s), and the name, address, and telephone number of the chemical manufacturer, importer, or other responsible party.

- Check all incoming shipments of hazardous substances to be sure that they are labeled in accordance to the regulations.

- If a container is not labeled, obtain a label from the manufacturer, importer, or other responsible party, or prepare a label using information obtained from these sources. Employers are responsible for ensuring that containers in the workplace are properly labeled, tagged, or marked.

- Do not remove or deface existing labels on containers unless the container is immediately re-marked with the required information.

- Instruct employees on the importance of labeling portable receptacles into which they have poured hazardous substances. If the portable container is only for the immediate use of the employee pouring the substance, then the container does not have to be labeled. If the container is used by more than one person, or on more than one shift, or if it may be left unattended by the person using it, it must be labeled (secondary containers must contain either a full label, or the product identifier and words, pictures, symbols, or combination thereof. The secondary label, in conjunction with the hazard communication program and SDS, must relay enough information as to tell the employee what the physical and health hazards of that substance are).

STEP 9. Develop an employee training and notification program.

- Employers must develop an employee training and education program that informs employees of the requirements of the law, the employer's hazard communication methods, and the employee's rights.

- The program also must include information about the nature of the hazards, appropriate work practices, control programs, protective measures, and emergency procedures.

- Training Guidelines have been developed to assist you in preparing your own program. See "Employee Training", later in this publication.

STEP 10. Train and educate employees.

- Initial training must be given to all current employees, and to new employees prior to their first assignment.

- Additional training must be provided when:
  - new hazards are introduced into the workplace,
  - exposure to hazardous chemicals changes,
  - employees are subject to increased exposure due to changes in work practices, processes or equipment,
  - additional information about hazardous substances in the workplace becomes available.

STEP 11. <u>Document the training given.</u>

- Be sure to keep records such as:
  - names of persons trained,
  - date and length of training session,
  - who conducted the training,
  - type of training, and
  - an outline or lesson plan.

STEP 12. <u>Develop a written hazard communication program.</u>

Your written hazard communication program describes how your Right-to-Know program meets all the requirements of the MOSH Law and Regulations.

This program must include:

- Information about where your chemical information list and SDS are maintained and how employees may access them,

- A description of your labeling system and other forms of warnings,

- How you provide employees with information about hazardous, non-routine tasks,

- How employees receive information about hazardous chemicals in unlabeled pipes, and

- Methods that will be used to notify other employers on a multi-employer worksite

A sample hazard communication program is provided later in this publication to assist you in developing your own program.

Preparing Your Chemical Information List

Throughout the Access to Information about Hazardous and Toxic Substances Law, there are references to the "*identity"* of a chemical. With the changes to the Hazard Communication standard to incorporate the GHS, the term *"identity"* has been removed and replaced with "product identifier". When the Access to Information about Hazardous and Toxic Substances Law references *"identity"* please substitute it for "product identifier" as defined in 29 CFR 1910.1200. For example, the manufacturer is required to include the product identifier of the hazardous chemical on the label and the safety data sheet.

"Product Identifier" is defined in 29 CFR 1910.1200 as:

> "the name or number used for a hazardous chemical on a label or SDS. It provides a unique means by which the user can identify the chemical. The product identifier used shall permit cross-references to be made among the list of hazardous chemicals required in the written hazard communication program, the label, and the SDS".

The law requires an employer to compile and maintain a chemical information list that contains the common name, chemical name, work area, and date brought into the workplace for each hazardous chemical used or stored in a workplace. However, a list is not required in work operations where employees handle chemicals only in sealed containers which are not opened under normal conditions of use, such as are found in warehousing or retail sales. The standard contains the following additional definitions:

- *Chemical name* means the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name that will clearly identify the chemical for the purpose of conducting a hazard classification.

- *Common name* means any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a chemical other than by its chemical name.

- *Work area* means a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

- *Workplace* means an establishment, job site, or project, at one geographical location containing one or more work areas.

A copy of the completed chemical information list, arranged in alphabetical order by common name, must be sent to:

Maryland Department of the Environment
Maryland Department of the Environment (MDE)
Science Services Administration
Community Right-To-Know Section
1800 Washington Boulevard, Suite 540
Baltimore, MD 21230-1718

Each chemical information list must be revised, re-alphabetized and resubmitted to the Maryland Department of the Environment every two years. If a new chemical is introduced to the workplace, it must be added to the chemical information list within 30 days, with the date of the addition noted. All additions must be placed on the list in alphabetical order at the next two-year revision of the list.

The employer must maintain each chemical information list for 40 years.

Frequently Asked Questions

Q. **Our product does not have a common name; we just know it as A31. What should we do about the list?**

A. Be sure to familiarize yourself with the definition of a common name. A common name may be a trade name, a code name or number, a brand name, or a generic name. If A31 is your code number, it may be the common name for the product. However, either the common name or the chemical name must be the product identifier of the chemical, that is, the name that appears on both the label and the SDS.

Q. We commonly call a particular product "green glop" but that name does not appear anywhere on the label or the SDS. May we use "green glop" as the common name?

A. As long as the chemical name for the product provides for cross-reference between the list, the SDS and the label, "green glop" would be acceptable as a common name on the list.

Q. If a product is a mixture of several hazardous chemicals, how do we find its chemical name?

A. You should look at the SDS to find the chemical name. It is possible that the mixture has a name which "clearly identifies the chemical for the purpose of conducting a hazard classification." If the mixture does not have a chemical name, you must list the chemical names of all the hazardous ingredients in the mixture indicated on the SDS.

Q. We have some chemicals that we use throughout the plant. How do we identify the work area?

A. If the chemical is used throughout the plant, it is acceptable to list the work area as "plant-wide." In developing your list, you must carefully consider how many different work areas

you have in your plant. Do not forget work areas outside of the building where you may store hazardous chemicals.

Q. Can you send me a chemical information list form and I'll fill it out and send it back?

A. There is no form required under this law. You may format your list in the way it is most useful for you as long as it is in alphabetical order by common name. However, because of the many requests for forms, a suggested format has been developed. See the next two pages.

CHEMICAL INFORMATION LIST

COMPANY NAME

WORKPLACE ADDRESS:
(IF DIFFERENT FROM BUSINESS ADDRESS)

BUSINESS ADDRESS: _____ _____

_____ _____

_____ _____

CONTACT PERSON_____ TELEPHONE_____ DATE OF PREPARATION OR REVISION_____

TITLE _____

COMMON NAME[1]	CHEMICAL NAME[1]	WORK AREA(S)[2]	DATE ADDED TO LIST
(In Alphabetical Order)			

[1] Either the chemical name or the common name must be the product identifier of the chemical that is found on the label and the SDS. More than one common name for a particular substance may be listed in the "Common Name" column.

[2] If symbols, letters or numbers are used to identify work areas, the employer should also provide a key, map, or other descriptive identification.

(PAGE 1 MUST BE ATTACHED TO THIS/THESE PAGE(S)

COMPANY NAME_____ WORKPLACE ADDRESS

_____

_____

DATE OF PREPARATION OR REVISION _____ _____

COMMON NAME[3]	CHEMICAL NAME[1]	WORK AREA(S)[2]	DATE ADDED TO LIST
(In alphabetical order)			

CHEMICAL INFORMATION LIST (CONT.) PAGE_____ OF ____

Employee Training

Employee training is a vital part of your hazard communication program. We urge you as an employer to view the hazard communication process as an opportunity to improve the safety and health of your employees, and to conduct your training in a way that motivates your employees to work safely. If you approach the training program as a means to enhance worker protection rather than as another burdensome requirement imposed by government, you may enjoy some positive results: less absenteeism, a reduction of lost time accidents, a reduction of work related illnesses, a possible reduction in Workers' Compensation costs, and potentially, saved lives.

These guidelines were developed to aid employers in complying with Maryland's Right-to-Know Law. The guidelines are not intended as a substitute for the law but rather are offered as suggestions to employers who must develop employee training programs.

Specific legal requirements are detailed in 29 CFR 1910.1200(h), Employee Information and Training. You should use that information in conjunction with these guidelines.

♦ **WHEN TO TRAIN**

- Initial training is required for all employees
- New employees must be trained before their first assignment.
- Additional training is required whenever:
  - new hazards are introduced into the workplace,
  - exposure to hazardous chemicals changes,
  - employees are subject to increased exposure due to changes in work practices, processes or equipment, or
  - additional information about the hazardous substances in the workplace becomes available.

TRAINING PROGRAM

A. Prepare Objectives

Identifying specific learning objectives is the first step in establishing an effective training program. Right-to-Know training should be designed to provide information and training on six key points. These are:

1. The purpose and content of the law,
2. The nature of the hazardous substances in the workplace, and where they are located, used, and stored
3. Protection from the hazards,
4. How and where to obtain information on hazardous materials used in the workplace,
5. How to use the information on hazardous materials, and
6. Employee rights.

B. Determine Who to Train

- ***Identify the employees to be trained***. Using such tools as organizational charts, employee rosters and personnel records, identify the groups of employees who must be trained. Within one workplace, there may be such diverse staff as secretarial, managerial, engineering, production, maintenance, and sales staff.

- ***Consider employees' exposure to hazardous substances***. After identifying the groups of employees who must be trained, assess the employees' actual and potential exposure to hazardous chemicals, both during normal conditions of use and in potential emergencies. The program must provide detailed information to those employees who are using the chemicals. For those employees who may be exposed to a chemical only in a foreseeable emergency, training in identifying and responding to the emergency should be provided. For emergency training, also consult the requirements of 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response.

- ***Identify how employees are hired and transferred between jobs***. Determine the best method to ensure that employees are appropriately trained and updated. How employees are hired may determine the most appropriate manner to train new employees before their initial assignment. Perhaps the Right-to-Know training can be integrated into an orientation program or existing safety and health training. If employees frequently are transferred to different jobs, the training program should provide information for each type of exposure that may occur.

C. Design the Training Program

Keeping your objectives and employees in mind, begin to develop a program that meets the needs of your particular operation. While the nature and complexity of processes will vary from company to company, there are certain requirements that all employers must meet in order for a training program to be effective:

- ***An explanation of what the law is about***. Explain that the purpose of the law is to create a safer and healthier workplace by providing employees with information about the chemicals they use. Provide a brief overview of the law explaining that it contains definitions of hazardous materials as well as requirements for chemical information lists, data sheets, labeling, written hazard communication programs, and training. Tell your employees what you, as an employer, have done to comply with the law, such as compiling a chemical information list, obtaining safety data sheets, and conducting training.

- ***An explanation of how the chemicals in the workplace can be a hazard***. Explaining the hazards of chemicals in the workplace is a vital part of your training program. A first step in developing this portion of your program is evaluating the information about the hazardous chemicals on the labels and safety data sheets. This may be an

ideal time to organize the information so it is work area specific and is readily accessible in each work area.

This portion of the training should provide information on the specific nature of operations involving hazardous chemicals, a description of physical and health hazards of the materials, and when appropriate, a discussion of any signs or symptoms of overexposure. Emphasize hazardous chemicals that may be formed as a by-product of a process (for example, carbon monoxide from burning L.P. gas). Provide specific information to help employees recognize and evaluate conditions and situations that may result in employee exposure.

- ***A discussion of how exposure to hazardous chemicals can be controlled***. Include both routine and emergency situations such as a major leak or spill. The discussion should provide information on such topics as:

  - Work practices — procedures for handling materials, steps to minimize exposure, prohibitions on consumption of food and beverages in areas of possible contamination.
  - Engineering controls — ventilation, process control equipment, remote sensors, etc. Be sure to explain when and how these controls are to be used.
  - Personal protective equipment — gloves, goggles, respirators, protective clothing, etc. Be sure to discuss the proper usage, storage, maintenance, and limitations of any protective equipment, as well as its location and availability.

- ***An explanation of how employees can obtain information on hazardous substances***. Describe your written hazard communication program and the system that you use to make the chemical information list(s) and safety data sheets (SDS) available to employees. Employees should understand exactly when, where, how, and from whom they can obtain access to the written hazard communication program, the chemical information list(s), and safety data sheets. Explain any labeling, posters, or placarding systems that you use to convey hazard information.

- ***An explanation of how to use information on hazardous substances.***

  - **Labels** — Train employees in the importance of reading labels. Explain the elements and the requirements of the label. Show examples of labels that will be used in your workplace.

    Under the new GHS rules, which are incorporated into the Hazard Communication Standard, labels must contain six specific items; the product identifier, signal word, hazard statement(s), pictogram(s), precautionary statement(s), and the name and contact information of the manufacturer. Each one is defined and described in the standard.

  - **SDS**— Training must also focus on the safety data sheets and how employees can use them as a tool to find answers to their questions about specific materials. It is more important to ensure that each employee has a basic knowledge of how to

find information on the sheet and to properly make use of that information than to review every SDS with each employee. Under the revised standard SDS will be in a required 16 section format. Providing a general explanation of the required sections and what employees may expect to find in each one may be a beneficial part of your training program. Allowing/prompting employees to ask questions about SDS is imperative to learning and retaining knowledge.

- ***An explanation of employee rights***. Tell employees and their designated representatives that they have three basic rights under the Right-to-Know law:

  - Ready access to safety data sheets, upon request,
  - Access to the chemical information list(s) within one working day of a request, and
  - One copy of the requested information or the means to produce a copy, without charge, within five working days.

  If an employer fails to provide the required access to or a copy of the information about the hazardous chemical, the employee may refuse to work with the hazardous chemical.

D. Select Techniques for Training

Consider the following ideas as you begin to develop your training plan:

- The person or persons designated to do the training should be credible, respected, and knowledgeable about the operations and should be given the time, authority, and resources to develop an effective program.

- All employees may be trained at one time in some aspects of the law, while some individuals or small groups may need special instructions.

- Training may be conducted in a formal classroom setting or informally in “tool box" sessions (as long as all required information is gone over and thoroughly explained).

- Posting additional information in certain work areas may reinforce some aspects of your training.

- Materials that can be handed out to employees is useful, examples would be PowerPoint’s, examples of SDS, quick reference guides, etc.

- The use of audiovisual materials such as videotapes and sound/slide presentations may be helpful for discussion of a topic such as the use of safety data sheets. A number of vendors supply these materials. Be sure to review training materials before purchase to assure they meet the requirements of the Maryland law and your specific needs. MOSH offers a wide range of safety and health videos and DVDs (in English and Spanish) that can be checked out.

- Check with your professional society or trade association. Many of these groups have training materials. Some are geared to specific industries.

- Demonstrations are valuable training aids. Issues such as proper selection and use of personal protective equipment and simulated spill cleanup lend themselves to demonstrations. Some vendors provide training that you may wish to incorporate into your program.

- Periodic retraining is an important part of an effective training and education program. Refresher training should be provided at least annually. Additionally, the principles discussed in your training should be reinforced on a regular basis when the chemicals are being used.

E. Assess Effectiveness

At the conclusion of a training session, it is important to evaluate its effectiveness. The following suggestions may be helpful:

- Determine if the training objectives were met. This can be done by testing. You may wish to use a written test, a one-on-one oral evaluation with employees, or demonstration by employees of skills learned from the training.

- Stimulate discussion by presenting hypothetical situations and asking for comments.

- Provide an opportunity at the end of each training session for questions and answers.

- Ask for employees' evaluation of the training. Try to determine what employees found most valuable and helpful and what they found least useful. You can use this information in planning subsequent training sessions. If it is clear that the training did not give the employees the expected level of knowledge and skill, it may be necessary to revise the training program and provide retraining.

F. Establish Procedures for Recordkeeping

In the event of a MOSH inspection, a record of training can help prove that adequate training was provided. As a minimum, records should include:

- Who was present (you may want to use a sign-in sheet)
- Who conducted the training
- A brief outline, summary or lesson plan of what was covered
- Date the training was conducted
- Length of the training
- Titles of any audiovisual material used
- Copies/list of any handouts given to employees

G. Note What is Not Considered "Training"

While audiovisual materials, notices to employees, and posters may be valuable as training aids, merely providing them does not constitute adequate training. The following are examples of what would **NOT** be considered adequate training:

- Distributing or reading safety data sheets to employees without any explanation of how to interpret them.

- Showing a generalized slide/tape program on Right-to-Know without determining if it meets all the training requirements outlined in the Maryland law.

- Posting a notice to employees without providing an explanation.

Employee Right-to-Know Training Checklist

	YES	NEEDS ACTION
1. Have you identified all of your employees who must be trained?	∂	∂
2. Have you determined which chemicals your employees may be exposed to under normal working conditions or foreseeable emergencies?	∂	∂
3. Does the training inform your employees of the requirements of the law, their rights, and your hazard communication methods?	∂	∂
4. Are employees aware of where the chemical information list(s), safety data sheets, and the written program are kept?	∂	∂
5. Have they received explanations of labels and warnings that are in use in their work areas?	∂	∂
6. Have you explained how to use a safety data sheet to obtain information about a chemical?	∂	∂
7. Does the training cover all types of hazardous chemicals with which the employee may come into contact under normal usage and foreseeable emergency?	∂	∂
8. Are your workers familiar with the different types of chemicals such as solvents and corrosives, and with the major hazards associated with them?	∂	∂
9. Does the training discuss those operations where hazardous chemicals are present, and the hazards posed by the chemicals?	∂	∂
10. Have you trained your employees about appropriate work practices?	∂	∂
11. Are they familiar with control programs and personal protective equipment that are to be used to control exposure?	∂	∂
12. Do your employees understand methods to detect the presence or release of chemicals in the workplace?	∂	∂
13. Does your training program provide information about appropriate procedures in the event of an emergency?	∂	∂
14. Have you developed a method of assessing effectiveness and keeping records to ensure that you have an effective training program?	∂	∂

15. Have you developed a system to ensure that new employees are trained prior to initial assignment? ∂ ∂

16. Have you developed a system with purchasing or other staff to make sure that additional training is provided if a new hazard is introduced into the work area? ∂ ∂

17. Do you have a system to ensure that current (up-to-date) SDS are available to employees? ∂ ∂

18. Do you have a system for informing employees if you become aware of new hazards relating to the chemicals in use? ∂ ∂

19. Do you have a system for informing employees of any changes in work practices, equipment, or processes that may subject them to increased exposure? ∂ ∂

NOTICE TO EMPLOYEES
YOU HAVE A RIGHT TO KNOW!

IT'S THE LAW!

The *Access to Information About Hazardous and Toxic Substances Act*, also known as the "Right-to-Know" law, gives employees a right to learn about chemical hazards in the workplace and how to work safely with these materials.

The law requires employers to prepare a list of all hazardous and toxic substances used in the workplace and to obtain safety data sheets (SDS) for these substances. Employers also must label or otherwise identify containers of hazardous chemicals.

Employees must be told how to obtain information about the hazardous substances in their workplaces and must be provided proper training in the safe use of these materials. The law also provides an employee, under certain specific circumstances, with the right to refuse to work with a chemical if the employer does not provide access to the required information.

EMPLOYEE RIGHTS

- SDS must be readily accessible to you during your work shift, when you are in your work area.
- The chemical information list for hazardous substances in your workplace must be made available within one day of your request.
- Within five days of a request, you must be provided with one copy of the chemical information list or SDS or the means to make a copy of the requested material, at no cost.
- You must be trained on the hazards of the chemicals in your workplace, the appropriate equipment and methods to protect you from the hazards, and emergency procedures.

EMPLOYEE RESPONSIBILITIES

Your Right-to-Know program takes teamwork. Do your part to work with your employer and co-workers to keep your workplace safe!

- Know where to get information about hazardous substances used, stored, or handled in your workplace.
- Learn to read labels and understand SDS.
- Identify hazards before you start a job.
- Do not be afraid to ask questions.
- Keep your work area clean.
- Use protective clothing and equipment.
- Do not smoke, eat, or drink around hazardous substances.
- Learn emergency procedures.
- Follow your employer's procedures for disposal and clean up.
- Practice safe work habits at all time.

ASSISTANCE IS AVAILABLE. CALL MOSH.

♦ Copies of MOSH publications	(410) 527-2092
♦ Industrial hygiene assistance	(410) 527-4499
♦ Complaints about an unsafe workplace	(410) 527-4447

http://www.dllr.maryland.gov/labor/mosh

Written Hazard Communication Program

For Maryland Employers

The Labor and Employment Article § 5-405, of the Annotated Code of Maryland and The Code of Federal Regulations – 29 CFR 1910.1200 requires every employer to prepare a written hazard communication program and chemcial information list(s) specific to each facility.

The written program must include a description of:

- How employees gain access to the chemical information list and safety data sheets (SDS),
- How containers are labeled,
- The employee training program,
- The hazards associated with chemicals in unlabeled pipes,
- The means by which the employer will inform employees of the hazards of non-routine tasks such as the cleaning of reactor vessels, and
- The means by which the employer will inform other employers on a multi-employer worksite of chemical hazards they may be exposed to

The chemical information list must include:

- The company name,
- The business address and workplace address (if different),
- The name, title, and telephone number of a contact person,
- The date of preperation or revision,
- The common name of each hazardous substance in the facility (in alphabetical order),
- The chemical name of each hazardous substance in the facility,
- The work area where the chemcial is used, stored, or handled, and
- The date the chemical was brought into the facility

The written program and chemical information list must be available to employees, their designated representatives, and representatives of the Commissioner of Labor and Industry.

This sample Written Hazard Communication Program for Maryland Employers has been prepared for you to use **as a guide to assist you in writing your own program**.

INTRODUCTION

This written hazard communication program has been developed and implemented by:

Name of Company _____

Address_____

to comply with the provisions of 29 CFR 1910.1200, as required by the Maryland Access to Information about Hazardous and Toxic Substances Law and COMAR 09.12.33.

This program is available in the following locations for review by any interested employee:

_____

_____

_____

_____

_____

_____

_____

_____

_____

(Locations Where Available)

The following pages document the action we have taken regarding our chemical information list, safety data sheets, labels, and employee information and training.

CHEMICAL INFORMATION LIST

Reference: Labor & Employment Article, Section 5-405, COMAR 09.12.33, and 29 CFR 1920.1200(e)(1)(i)

- Our chemical information list was compiled by:_____

  _____

  (Title or name and telephone number of responsible person)

- Our chemical information list is maintained by:_____

  _____

  (Title or name and telephone number of responsible person)

- Employees may request access to or a copy of the list from:

  _____

  (Name) (Title) (Telephone number)

- Describe how chemicals not already on the list are added to the list within 30 days of being introduced into the workplace.

  _____

  _____

  _____

- Describe the procedures used to notify employees affected by the introduction of the new substance. Note or attach any instructions given to the purchasing department to allow control.

  _____

  _____

  _____

- The list is scheduled to be revised, realphabetized, and resubmitted to the Maryland Department of the Environment every two years. Our list will be resubmitted on _____ (Date) by _____. (Name and title of responsible person)

- Describe how independent contractors are provided access to the chemical information list before they begin work.

  _____

  _____

  _____

SAFETY DATA SHEETS (SDS)

Reference: 29 CFR 1910.1200(g)

Maintaining and Updating SDS

- The responsibility for obtaining and maintaining the file of SDS has been assigned to:

_____

(Title or name) (Telephone number)

- Describe how SDS are maintained (for example, in notebooks in the work area, in a computer file, on a display board) and how employees can access them.

_____

_____

_____

_____

- Describe the procedure that is followed when a SDS is not received at the same time you receive an initial shipment of a material.

_____

_____

_____

_____

- Describe the procedure for replacing a SDS when you receive a new one from your manufacturer or distributor.

_____

_____

_____

_____

- If you are using any alternative to actual data sheets in the workplace (for example, a computerized database), describe the alternative method of providing the required information.

_____

_____

_____

- Manufacturers, distributors, or employers who prepare safety data sheets must describe the procedure for updating the SDS when new and significant health information is obtained.

Employee Access to SDS

- Describe how access to SDS is provided to each employee upon request.

- Discuss how one free copy of the requested SDS will be provided to each employee within five working days of a request.

- Employees may request a copy or access to SDS from:

(Name)	(Location)
(Name)	(Location)
(Name)	(Location)

LABELS

Reference: 29 CFR 1910.1200(f)

Incoming Containers.

- The responsibility for ensuring that all incoming containers are properly labeled has been assigned to: _____

(Name)

  - All labels on incoming containers must contain:
    - The product identifier,
    - Signal word(s);
    - Hazard statement (s);
    - Pictogram(s);
    - Precautionary statement(s); and
    - The name, address, and telephone number of the chemical manufacturer, importer, or other responsible party
  - The label must be legible, in English, and prominently displayed on each container.

In-Plant Containers.

- The responsibility for ensuring that all in-plant containers are properly labeled has been assigned to:_____

(Name)

- If an in-house system employing numbers or graphics is used, describe the system and explain how it works.

_____

_____

_____

_____

- If a method other than labeling (signs, placards, process sheets, etc.) is used to identify the contents of a fixed process vessel, describe the alternative method.

_____

_____

_____

_____

- The person responsible for labeling in-house portable containers is:

_____

(Name and title)

- Describe your method for labeling in-house portable containers (make sure all the proper information is contained on the secondary container, requirements can be found in 29 CFR 1910.1200(f)(6)(i) & (ii)).

_____

_____

_____

_____

Manufacturers

- Manufacturers of hazardous substances should identify the person responsible for ensuring that labels contain the information required by law.

_____

(Name of responsible person)

- Manufacturers, distributors and importers should identify the person responsible for ensuring that all shipped containers are labeled.

_____

(Name of responsible person)

- Manufacturers should describe procedures to review and update label information when necessary.

_____

_____

_____

_____

(Description of review mechanism)

EMPLOYEE INFORMATION AND TRAINING

Reference: 29 CFR 1910.1200(h)

- The responsibility for coordinating our Right-to-Know training has been assigned to:

_____

(Name)

- Describe the format to be used. For example, classroom instruction, self-paced, program learning, etc. (You may want to attach a copy of your training outline to this program).

_____

_____

_____

- List any training materials used, such as audiovisual materials or handouts.

_____

_____

_____

- Describe the elements of the training program. Compare them to the elements required by the standard.

_____

_____

_____

_____

- Describe the procedure used to train new employees on hazardous chemicals prior to their initial assignment.

_____

_____

_____

- Describe the procedure used to train employees when a new hazard is introduced into the workplace.

_____

_____

ADDITIONAL PROVISIONS

Hazardous Non-Routine Tasks

- Describe how employees who perform hazardous, non-routine tasks will be given information about hazardous chemicals to which they may be exposed during non-routine activity. This information will include:
  - Protective/safety measures the employee can take,
  - Measures the company has taken to lessen the hazards, including ventilation, respirators, personal protective equipment, presence of another employee, and
  - Emergency procedures.

- Non-routine tasks performed by employees of this company are:

Task **Hazardous Chemical**

_____

_____

_____

Chemicals in Unlabeled Pipes

- If employees perform work activities in areas where chemicals are transferred through unlabeled pipes, describe how and where the employees can get information prior to starting work, regarding:
  - The chemical in the pipes,
  - Potential hazards, and
  - Safety precautions which should be taken.

- List any work areas with unlabeled pipes:

_____

_____

- In these work areas with unlabeled pipes, the employee shall contact for further information:

_____

(Name/position)

Multi-Employer Worksites

- Describe the methods used to provide contractors/other employers at your site/facility with access to SDS, the chemical information list(s):

_____

_____

_____

- Describe the methods that will be used to inform contractors/other employers at your site/facility of any hazardous processes they may encounter while on site:

- Describe the methods that will be used to inform contractors/other employers at your site/facility of the labeling system being used:

- Describe the methods that will be used to obtain the chemical information list(s) and the SDS (if needed) from contractors or other employers on site:

- If your worksite is a construction site, describe how a central location for all contractor chemical information list(s) will be determined:

Written Hazard Determination Program

Manufacturers, distributors, importers, and employers classifying chemicals also shall describe in writing the procedures used to determine the hazards of chemicals they classify in accordance with the law and regulations.

APPENDIX A

LABOR AND EMPLOYMENT
TITLE 5 - OCCUPATIONAL SAFETY AND HEALTH
Subtitle 4 - Access to Information About Hazardous and Toxic Substances
Section 5-401 - Definitions.

§ 5-401. Definitions.

(a) *In general*.- In this subtitle the following words have the meanings indicated.

(b) *Employee*.- (1) "Employee" means an employee (as defined in § 5-101 of this title) or former employee when the individual may be exposed under normal operating conditions or foreseeable emergencies.

(2) "Employee" includes:

(i) a line supervisor;

(ii) a maintenance worker;

(iii) a member or former member of a volunteer fire, ambulance, or rescue company;

(iv) operating personnel; and

(v) a production worker.

(c) *Employer*.- (1) "Employer" means an employer (as defined in § 5-101 of this title) and includes a volunteer fire, ambulance, or rescue company.

(2) "Employer" does not include a farmer who:

(i) uses a hazardous chemical in farming; and

(ii) complies with the applicable requirements of the Federal Insecticide, Fungicide, and Rodenticide Act.

§ 5-402. Scope of subtitle.

Sections 5-404 through 5-409 of this subtitle do not apply to:

(1) a railroad that is subject to the Federal Railroad Safety Act of 1970 and the jurisdiction of the Federal Railroad Administration;

(2) a landfill in the State;

(3) a person who:

(i) is engaged in the business of providing commercial or residential garbage and refuse pickup and disposal service while actually engaging in the pickup and disposal of garbage and refuse; and

(ii) does not pick up, transport, treat, store, or dispose of controlled hazardous substances that are regulated under Title 7, Subtitle 2 of the Environment Article; or

(4) an analytical, educational, or research and development laboratory.

§ 5-403. Application of federal standard.

(a) *In general*.- Except as otherwise provided in this section, an employer, chemical manufacturer, importer, or distributor shall comply with all applicable provisions of the United States Department of Labor, Occupational Safety and Health Administration, "Hazard Communication Standard", 29 C.F.R. 1910.1200, as published at 52 Federal Register No. 163, August 24, 1987, pages 31876 through 31886, and, as adopted by the Commissioner, all subsequent amendments.

(b) *Interpretation of terms*.- (1) If a term is used in 29 C.F.R. 1910.1200 and defined in § 5-401 of this subtitle, the term has the meaning stated in § 5-401.

(2) When used in 29 C.F.R. 1910.1200, the terms "Assistant Secretary of Labor for OSHA" and "Director of the National Institute for Occupational Safety and Health" shall be interpreted to mean the Commissioner or a designated representative of the Commissioner.

(c) *Wood and wood products*.- The exclusion for wood and wood products set forth in 29 C.F.R. 1910.1200(b)(6)(iii) does not apply in Maryland.

(d) *Laboratories*.- (1) Except for an analytical, educational, or research and development laboratory, a laboratory shall comply with 29 C.F.R. 1910.1200.

(2) An employer that is an analytical, educational, or research and development laboratory shall comply with 29 C.F.R. 1910.1200(b)(3).

(e) *Burden of proof of trade secret*.- The party who claims a trade secret under 29 C.F.R. 1910.1200(i) has the burden of proving the claim.

§ 5-404. Waiver of a right.

(a) *Prohibited act*.- An employer may not ask or require an employee to waive any right under this subtitle or 29 C.F.R. 1910.1200.

(b) *Waiver void*.- A waiver of a right under this subtitle or 29 C.F.R. 1910.1200 is void.

§ 5-405. Chemical information list.

(a) *Scope of section*.- This section does not apply to a consumer product or foodstuff that is:

(1) packaged for distribution to and intended for use by the general public; and

(2) handled unopened or stored unopened in a retail establishment, including its storeroom or warehouse.

(b) *Duty of employer*.- (1) To comply with the requirements of 29 C.F.R. 1910.1200(e)(1)(i) for a list of hazardous chemicals, each employer shall compile and maintain a chemical information

list for each hazardous chemical that is formulated, handled, manufactured, packaged, processed, reacted, repackaged, stored, or transferred in the workplace of the employer.

(2) Within 30 days after a hazardous chemical is introduced into the workplace of an employer, the employer shall add the hazardous chemical to the chemical information list. The employer need not place the hazardous chemical alphabetically on the chemical information list until the employer next revises the list as required under paragraph (3) of this subsection.

(3) Every 2 years, an employer shall revise the chemical information list.

(c) *Contents*.- For each hazardous chemical on a chemical information list, the list shall:

(1) contain its chemical and common names; and

(2) identify each work area where the hazardous chemical is found.

(d) *Form*.- Each compilation of a chemical information list and each revision under subsection (b) of this section shall list the hazardous chemicals on the list in alphabetical order according to common name.

(e) *Retention*.- Each employer shall keep, for at least 40 years, each chemical information list that the employer compiles or revises.

§ 5-406. Submission on documents and role of Department of Environment.

(a) *Submission of documents*.- (1) Within 15 days after an employer prepares or revises a chemical information list, the employer shall submit a copy of the list to the Department of the Environment.

(2) Within 5 working days after an employer receives a written request from the Department of the Environment for a copy of a material safety data sheet, the employer shall submit to the Department a copy of that sheet.

(b) *Duty to review; notice to Commissioner*.- The Department of the Environment shall:

(1) review, for completeness and sufficiency, each:

(i) chemical information list that an employer submits under subsection (a) of this section; and

(ii) material safety data sheet that the Department requests; and

(2) give the Commissioner notice of any noncompliance.

(c) *Access to information*.- The Department of the Environment shall provide access to information on a chemical information list only to:

(1) a person who provides fire, ambulance, or rescue service for the appropriate geographic area;

(2) a nurse, physician, or physician assistant who is treating an individual in a medical emergency;

(3) a former employee of an inactive employer;

(4) the Commissioner; and

(5) an independent contractor or employer as provided in § 5-408 of this subtitle.

(d) *Confidentiality*.- Except as provided in subsections (b) and (c) of this section and § 6-503 of the Environment Article, the Department of the Environment:

(1) shall treat as confidential information in a chemical information list; and

(2) may not disclose the information:

(i) in any civil proceeding; or

(ii) to any person.

§ 5-407. Request for information.

(a) *Right of employees to see documents; access*.- (1) An employee or designated representative may ask an employer for:

(i) access to a chemical information list maintained by the employer; and

(ii) a copy of the chemical information list or any material safety data sheet in the workplace of the employee.

(2) An employer shall comply with a request under this subsection:

(i) for access, in the workplace of the employee, within 1 working day after a request; and

(ii) for a copy, within 5 days after a request.

(3) To comply with a request for a copy, an employer shall provide, without charge to the employee or designated representative, the copy or the mechanical means to produce the copy. If, during a calendar year, more than 1 copy is requested for an employee the employer may assess a reasonable charge for each additional copy.

(4) An employer shall make the material safety data sheet readily accessible in accordance with 29 C.F.R. 1910.1200(g)(8).

(5) If an employer fails to comply with this subsection, an employee who requests the information may refuse to work with the hazardous chemical for which the chemical information list or material safety data sheet was requested.

(b) *Access to documents by other persons*.- A person described in Title 6, Subtitle 5 of the Environment Article has access to a chemical information list or material safety data sheet in accordance with that subtitle.

§ 5-408. Exchange of information by contractor and employer.

(a) *Information for employers*.- An independent contractor to whom this subtitle applies or an employer:

(1) before commencement of work at a workplace, shall provide information compiled under § 5-405 of this subtitle to any other employer whose workplace is the site of work being performed by the independent contractor or employer; and

(2) on request, shall provide material safety data sheets for each hazardous chemical identified on the chemical information list to any other employer whose workplace is the site of the work being performed by the independent contractor or employer, within 1 working day after the request.

(b) *Information for independent contractors*.- Before commencement of work by an independent contractor, any employer who employs the independent contractor shall provide information required under § 5-405 of this subtitle and 29 C.F.R. 1910.1200(g) for the workplace at which the independent contractor will work.

(c) *Chemical information list at construction site*.- A general contractor or its representative shall designate, for each construction site, a common location where each independent contractor or employer shall leave the chemical information list of the contractor or employer before the contractor begins work at the site.

(d) *Information from Department of Environment*.- An independent contractor or employer who is not given information as required under subsection (a) or (b) of this section may obtain the document from the Department of the Environment in accordance with § 5-406(c) of this subtitle.

§ 5-409. Information for fire control.

(a) *"Fire department official" defined*.- In this section, "fire department official":

(1) means an individual who is responsible for the administration of a fire department in a political subdivision or a designee of the individual; and

(2) includes a fire administrator or fire chief.

(b) *Duties of employer*.- On request, an employer shall give a fire department official:

(1) a list of work areas, identified by name and location, and the appropriate chemical information list for each work area; and

(2) a material safety data sheet for each hazardous chemical included on the chemical information list.

(c) *Access to retail establishments*.- On notice, the employer at a retail establishment shall allow a fire department official to have access to the establishment, during normal business hours, to develop prefire strategy.

(d) *Confidentiality*.- (1) Except as provided in paragraph (2) of this subsection, information submitted or made available under this section is privileged and may not be disclosed to any person or in any civil proceeding.

(2) A fire department official who obtains information under subsection (b) of this section shall make the information available, on request, to an ambulance squad, fire inspection, fire suppression, or rescue squad unit within the same jurisdiction.

§ 5-410. Nonapplicability of criminal penalty.

The criminal penalty under § 5-804 of this title does not apply to a violation that arises under §§ 5-404 through 5-409 of this subtitle.

APPENDIX B

Title 09 DEPARTMENT OF LABOR, LICENSING, AND REGULATION
Subtitle 12 DIVISION OF LABOR AND INDUSTRY
Chapter 33 Maryland Occupational Safety and Health Regulations for Access to Information about Hazardous and Toxic Substances
Authority: Labor and Employment Article, §§2-106(b)(4) and 5-312, Annotated Code of Maryland

.01 Purpose.

The requirements in this chapter supplement the provisions of Labor and Employment Article, § 5-401--5-410, Annotated Code of Maryland.

.02 Chemical Information List.

A. The employer compiling a chemical information list shall ensure that:

(1) The complete name and business address of the employer submitting the list, the name and telephone number of a contact person, and the date of preparation or revision is noted on the first page of the list;

(2) Either the chemical or common name on the list is the identity shown on the MSDS and label;

(3) When a chemical is added to the list, the date of addition appears next to the addition.

B. If symbols, letters, or numbers are used to identify work areas, the employer shall also provide a key, map, or other descriptive identification.

C. The employer shall, upon request, assure the immediate access of the Commissioner of Labor and Industry to the chemical information list.

Administrative History

Effective date: November 25, 1985 (12:17 Md. R. 1705)
Regulation .01 amended effective November 27, 1989 (16:23 Md. R. 2505)
Regulation .02A amended effective November 27, 1989 (16:23 Md. R. 2505)
Regulation .03C, D amended effective November 27, 1989 (16:23 Md. R. 2505)
Regulation .04 amended effective November 27, 1989 (16:23 Md. R. 2505)
Regulations .01—.05 repealed, new Regulation .01 adopted, and Regulation .06 recodified to be Regulation .02 effective December 24, 1990 (17:25 Md. R. 2907)

APPENDIX C

Purpose

(a) *Purpose.*

(a)(1) The purpose of this section is to ensure that the hazards of all chemicals produced or imported are classified, and that information concerning the classified hazards is transmitted to employers and employees. The requirements of this section are intended to be consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS), Revision 3. The transmittal of information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, safety data sheets and employee training.

(a)(2) This occupational safety and health standard is intended to address comprehensively the issue of classifying the potential hazards of chemicals, and communicating information concerning hazards and appropriate protective measures to employees, and to preempt any legislative or regulatory enactments of a state, or political subdivision of a state, pertaining to this subject. Classifying the potential hazards of chemicals and communicating information concerning hazards and appropriate protective measures to employees, may include, for example, but is not limited to, provisions for: developing and maintaining a written hazard communication program for the workplace, including lists of hazardous chemicals present; labeling of containers of chemicals in the workplace, as well as of containers of chemicals being shipped to other workplaces; preparation and distribution of safety data sheets to employees and downstream employers; and development and implementation of employee training programs regarding hazards of chemicals and protective measures. Under section 18 of the Act, no state or political subdivision of a state may adopt or enforce any requirement relating to the issue addressed by this Federal standard, except pursuant to a Federally-approved state plan.

Scope and Application.

(b) *Scope and application.*

(b)(1) This section requires chemical manufacturers or importers to classify the hazards of chemicals which they produce or import, and all employers to provide information to their employees about the hazardous chemicals to which they are exposed, by means of a hazard communication program, labels and other forms of warning, safety data sheets, and information and training. In addition, this section requires distributors to transmit the required information to employers. (Employers who do not produce or import chemicals need only focus on those parts of this rule that deal with establishing a workplace program and communicating information to their workers.)

(b)(2) This section applies to any chemical which is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency.

(b)(3) This section applies to laboratories only as follows:

(b)(3)(i) Employers shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced;

(b)(3)(ii) Employers shall maintain any safety data sheets that are received with incoming shipments of hazardous chemicals, and ensure that they are readily accessible during each workshift to laboratory employees when they are in their work areas;

(b)(3)(iii) Employers shall ensure that laboratory employees are provided information and training in accordance with paragraph (h) of this section, except for the location and availability of the written hazard communication program under paragraph (h)(2)(iii) of this section; and,

(b)(3)(iv) Laboratory employers that ship hazardous chemicals are considered to be either a chemical manufacturer or a distributor under this rule, and thus must ensure that any containers of hazardous chemicals leaving the laboratory are labeled in accordance with paragraph (f) of this section, and that a safety data sheet is provided to distributors and other employers in accordance with paragraphs (g)(6) and (g)(7) of this section.

(b)(4) In work operations where employees only handle chemicals in sealed containers which are not opened under normal conditions of use (such as are found in marine cargo handling, warehousing, or retail sales), this section applies to these operations only as follows:

(b)(4)(i) Employers shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced;

(b)(4)(ii) Employers shall maintain copies of any safety data sheets that are received with incoming shipments of the sealed containers of hazardous chemicals, shall obtain a safety data sheet as soon as possible for sealed containers of hazardous chemicals received without a safety data sheet if an employee requests the safety data sheet, and shall ensure that the safety data sheets are readily accessible during each work shift to employees when they are in their work area(s); and,

(b)(4)(iii) Employers shall ensure that employees are provided with information and training in accordance with paragraph (h) of this section (except for the location and availability of the written hazard communication program under paragraph (h)(2)(iii) of this section), to the extent necessary to protect them in the event of a spill or leak of a hazardous chemical from a sealed container.

(b)(5) This section does not require labeling of the following chemicals:

(b)(5)(i) Any pesticide as such term is defined in the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 et seq.), when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Environmental Protection Agency;

(b)(5)(ii) Any chemical substance or mixture as such terms are defined in the Toxic Substances Control Act (15 U.S.C. 2601 et seq.), when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Environmental Protection Agency;

(b)(5)(iii) Any food, food additive, color additive, drug, cosmetic, or medical or veterinary device or product, including materials intended for use as ingredients in such products (e.g. flavors and fragrances), as such terms are defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C.

301 et seq.) or the Virus-Serum-Toxin Act of 1913 (21 U.S.C. 151 et seq.), and regulations issued under those Acts, when they are subject to the labeling requirements under those Acts by either the Food and Drug Administration or the Department of Agriculture;

(b)(5)(iv) Any distilled spirits (beverage alcohols), wine, or malt beverage intended for nonindustrial use, as such terms are defined in the Federal Alcohol Administration Act (27 U.S.C. 201 et seq.) and regulations issued under that Act, when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Bureau of Alcohol, Tobacco, Firearms and Explosives;

(b)(5)(v) Any consumer product or hazardous substance as those terms are defined in the Consumer Product Safety Act (15 U.S.C. 2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.) respectively, when subject to a consumer product safety standard or labeling requirement of those Acts, or regulations issued under those Acts by the Consumer Product Safety Commission; and,

(b)(5)(vi) Agricultural or vegetable seed treated with pesticides and labeled in accordance with the Federal Seed Act (7 U.S.C. 1551 et seq.) and the labeling regulations issued under that Act by the Department of Agriculture.

(b)(6) This section does not apply to:

(b)(6)(i) Any hazardous waste as such term is defined by the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901 et seq.), when subject to regulations issued under that Act by the Environmental Protection Agency;

(b)(6)(ii) Any hazardous substance as such term is defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. 9601 et seq.) when the hazardous substance is the focus of remedial or removal action being conducted under CERCLA in accordance with Environmental Protection Agency regulations.

(b)(6)(iii) Tobacco or tobacco products;

(b)(6)(iv) Wood or wood products, including lumber which will not be processed, where the chemical manufacturer or importer can establish that the only hazard they pose to employees is the potential for flammability or combustibility (wood or wood products which have been treated with a hazardous chemical covered by this standard, and wood which may be subsequently sawed or cut, generating dust, are not exempted);

(b)(6)(v) Articles (as that term is defined in paragraph (c) of this section);

(b)(6)(vi) Food or alcoholic beverages which are sold, used, or prepared in a retail establishment (such as a grocery store, restaurant, or drinking place), and foods intended for personal consumption by employees while in the workplace;

(b)(6)(vii) Any drug, as that term is defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.), when it is in solid, final form for direct administration to the patient (e.g., tablets or pills); drugs which are packaged by the chemical manufacturer for sale to consumers in

a retail establishment (e.g., over-the-counter drugs); and drugs intended for personal consumption by employees while in the workplace (e.g., first aid supplies);

(b)(6)(viii) Cosmetics which are packaged for sale to consumers in a retail establishment, and cosmetics intended for personal consumption by employees while in the workplace;

(b)(6)(ix) Any consumer product or hazardous substance, as those terms are defined in the Consumer Product Safety Act (15 U.S.C. 2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.) respectively, where the employer can show that it is used in the workplace for the purpose intended by the chemical manufacturer or importer of the product, and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended;

(b)(6)(x) Nuisance particulates where the chemical manufacturer or importer can establish that they do not pose any physical or health hazard covered under this section;

(b)(6)(xi) Ionizing and nonionizing radiation; and,

(b)(6)(xii)Biological hazards.

Definitions.

(c) *Definitions.*

"Article" means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees.

"Assistant Secretary" means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

"Chemical" means any substance, or mixture of substances.

"Chemical manufacturer" means an employer with a workplace where chemical(s) are produced for use or distribution.

"Chemical name" means the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name that will clearly identify the chemical for the purpose of conducting a hazard classification.

"Classification" means to identify the relevant data regarding the hazards of a chemical; review those data to ascertain the hazards associated with the chemical; and decide whether the chemical will be classified as hazardous according to the definition of hazardous chemical in this section. In addition, classification for health and physical hazards includes the determination of the degree of hazard, where appropriate, by comparing the data with the criteria for health and physical hazards.

"Commercial account" means an arrangement whereby a retail distributor sells hazardous chemicals to an employer, generally in large quantities over time and/or at costs that are below the regular retail price.

"Common name" means any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a chemical other than by its chemical name.

"Container" means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this section, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.

"Designated representative" means any individual or organization to whom an employee gives written authorization to exercise such employee's rights under this section. A recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization.

"Director" means the Director, National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designee.

"Distributor" means a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers.

"Employee" means a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered.

"Employer" means a person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution, including a contractor or subcontractor.

"Exposure or exposed" means that an employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (e.g. accidental or possible) exposure. "Subjected" in terms of health hazards includes any route of entry (e.g. inhalation, ingestion, skin contact or absorption.)

"Foreseeable emergency" means any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical into the workplace.

"Hazard category" means the division of criteria within each hazard class, e.g., oral acute toxicity and flammable liquids include four hazard categories. These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories more generally.

"Hazard class" means the nature of the physical or health hazards, e.g., flammable solid, carcinogen, oral acute toxicity.

"Hazard not otherwise classified (HNOC)" means an adverse physical or health effect identified through evaluation of scientific evidence during the classification process that does not meet the specified criteria for the physical and health hazard classes addressed in this section. This does

not extend coverage to adverse physical and health effects for which there is a hazard class addressed in this section, but the effect either falls below the cut-off value/concentration limit of the hazard class or is under a GHS hazard category that has not been adopted by OSHA (e.g., acute toxicity Category 5).

"Hazard statement" means a statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.

"Hazardous chemical" means any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified.

"Health hazard" means a chemical which is classified as posing one of the following hazardous effects: acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); or aspiration hazard. The criteria for determining whether a chemical is classified as a health hazard are detailed in Appendix A to §1910.1200 -- Health Hazard Criteria.

"Immediate use" means that the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

"Importer" means the first business with employees within the Customs Territory of the United States which receives hazardous chemicals produced in other countries for the purpose of supplying them to distributors or employers within the United States.

"Label" means an appropriate group of written, printed or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.

"Label elements" means the specified pictogram, hazard statement, signal word and precautionary statement for each hazard class and category.

"Mixture" means a combination or a solution composed of two or more substances in which they do not react.

"Physical hazard" means a chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid or gas); self-reactive; pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; or in contact with water emits flammable gas. See Appendix B to §1910.1200 -- Physical Hazard Criteria.

"Pictogram" means a composition that may include a symbol plus other graphic elements, such as a border, background pattern, or color, that is intended to convey specific information about the hazards of a chemical. Eight pictograms are designated under this standard for application to a hazard category.

"Precautionary statement" means a phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.

"Product identifier" means the name or number used for a hazardous chemical on a label or in the SDS. It provides a unique means by which the user can identify the chemical. The product identifier used shall permit cross-references to be made among the list of hazardous chemicals required in the written hazard communication program, the label and the SDS.

"Produce" means to manufacture, process, formulate, blend, extract, generate, emit, or repackage.

"Pyrophoric gas" means a chemical in a gaseous state that will ignite spontaneously in air at a temperature of 130 degrees F (54.4 degrees C) or below.

"Responsible party" means someone who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

"Safety data sheet (SDS)" means written or printed material concerning a hazardous chemical that is prepared in accordance with paragraph (g) of this section.

"Signal word" means a word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used in this section are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for the less severe.

"Simple asphyxiant" means a substance or mixture that displaces oxygen in the ambient atmosphere, and can thus cause oxygen deprivation in those who are exposed, leading to unconsciousness and death.

"Specific chemical identity" means the chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance.

"Substance" means chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurities deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

"Trade secret" means any confidential formula, pattern, process, device, information or compilation of information that is used in an employer's business, and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it. Appendix E to §1910.1200–Definition of Trade Secret, sets out the criteria to be used in evaluating trade secrets.

"Use" means to package, handle, react, emit, extract, generate as a byproduct, or transfer.

"Work area" means a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

"Workplace" means an establishment, job site, or project, at one geographical location containing one or more work areas.

Hazard classification.

(d) *Hazard classification.*

(d)(1) Chemical manufacturers and importers shall evaluate chemicals produced in their workplaces or imported by them to classify the chemicals in accordance with this section. For each chemical, the chemical manufacturer or importer shall determine the hazard classes, and where appropriate, the category of each class that apply to the chemical being classified. Employers are not required to classify chemicals unless they choose not to rely on the classification performed by the chemical manufacturer or importer for the chemical to satisfy this requirement.

(d)(2) Chemical manufacturers, importers or employers classifying chemicals shall identify and consider the full range of available scientific literature and other evidence concerning the potential hazards. There is no requirement to test the chemical to determine how to classify its hazards. Appendix A to §1910.1200 shall be consulted for classification of health hazards, and Appendix B to §1910.1200 shall be consulted for the classification of physical hazards.

(d)(3) Mixtures.

(d)(3)(i) Chemical manufacturers, importers, or employers evaluating chemicals shall follow the procedures described in Appendices A and B to §1910.1200 to classify the hazards of the chemicals, including determinations regarding when mixtures of the classified chemicals are covered by this section.

(d)(3)(ii) When classifying mixtures they produce or import, chemical manufacturers and importers of mixtures may rely on the information provided on the current safety data sheets of the individual ingredients except where the chemical manufacturer or importer knows, or in the exercise of reasonable diligence should know, that the safety data sheet misstates or omits information required by this section.

Hazard Communication Program.

(e) *Written hazard communication program.*

(e)(1) Employers shall develop, implement, and maintain at each workplace, a written hazard communication program which at least describes how the criteria specified in paragraphs (f), (g), and (h) of this section for labels and other forms of warning, safety data sheets, and employee information and training will be met, and which also includes the following:

(e)(1)(i) A list of the hazardous chemicals known to be present using a product identifier that is referenced on the appropriate safety data sheet (the list may be compiled for the workplace as a whole or for individual work areas); and,

(e)(1)(ii) The methods the employer will use to inform employees of the hazards of non-routine tasks (for example, the cleaning of reactor vessels), and the hazards associated with chemicals contained in unlabeled pipes in their work areas.

(e)(2) "Multi-employer workplaces." Employers who produce, use, or store hazardous chemicals at a workplace in such a way that the employees of other employer(s) may be exposed (for example, employees of a construction contractor working on-site) shall additionally ensure that the hazard communication programs developed and implemented under this paragraph (e) include the following:

(e)(2)(i) The methods the employer will use to provide the other employer(s) on-site access to safety data sheets for each hazardous chemical the other employer(s)' employees may be exposed to while working;

(e)(2)(ii) The methods the employer will use to inform the other employer(s) of any precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies; and,

(e)(2)(iii) The methods the employer will use to inform the other employer(s) of the labeling system used in the workplace.

(e)(3) The employer may rely on an existing hazard communication program to comply with these requirements, provided that it meets the criteria established in this paragraph (e).

(e)(4) The employer shall make the written hazard communication program available, upon request, to employees, their designated representatives, the Assistant Secretary and the Director, in accordance with the requirements of 29 CFR 1910.1020 (e).

(e)(5) Where employees must travel between workplaces during a workshift, i.e., their work is carried out at more than one geographical location, the written hazard communication program may be kept at the primary workplace facility.

Labels.

(f) *Labels and other forms of warning.*

(f)(1) Labels on shipped containers. The chemical manufacturer, importer, or distributor shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged or marked. Hazards not otherwise classified do not have to be addressed on the container. Where the chemical manufacturer or importer is required to label, tag or mark the following information shall be provided:

(f)(1)(i) Product identifier;

(f)(1)(ii) Signal word;

(f)(1)(iii) Hazard statement(s);

(f)(1)(iv) Pictogram(s);

(f)(1)(v) Precautionary statement(s); and,

(f)(1)(vi) Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party.

(f)(2) The chemical manufacturer, importer, or distributor shall ensure that the information provided under paragraphs (f)(1)(i) through (v) of this section is in accordance with Appendix C to §1910.1200, for each hazard class and associated hazard category for the hazardous chemical, prominently displayed, and in English (other languages may also be included if appropriate).

(f)(3) The chemical manufacturer, importer, or distributor shall ensure that the information provided under paragraphs (f)(1)(ii) through (iv) of this section is located together on the tag, label or mark.

(f)(4) Solid materials

(f)(4)(i) For solid metal (such as a steel beam or a metal casting), solid wood, or plastic items that are not exempted as articles due to their downstream use, or shipments of whole grain, the required label may be transmitted to the customer at the time of the initial shipment, and need not be included with subsequent shipments to the same employer unless the information on the label changes;

(f)(4)(ii) The label may be transmitted with the initial shipment itself, or with the safety data sheet that is to be provided prior to or at the time of the first shipment; and,

(f)(4)(iii) This exception to requiring labels on every container of hazardous chemicals is only for the solid material itself, and does not apply to hazardous chemicals used in conjunction with, or known to be present with, the material and to which employees handling the items in transit may be exposed (for example, cutting fluids or pesticides in grains).

(f)(5) Chemical manufacturers, importers, or distributors shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked in accordance with this section in a manner which does not conflict with the requirements of the Hazardous Materials Transportation Act (49 U.S.C. 1801 et seq.) and regulations issued under that Act by the Department of Transportation.

(f)(6) Workplace labeling. Except as provided in paragraphs (f)(7) and (f)(8) of this section, the employer shall ensure that each container of hazardous chemicals in the workplace is labeled, tagged or marked with either:

(f)(6)(i) The information specified under paragraphs (f)(1)(i) through (v) of this section for labels on shipped containers; or,

(f)(6)(ii) Product identifier and words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the hazard communication program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.

(f)(7) The employer may use signs, placards, process sheets, batch tickets, operating procedures, or other such written materials in lieu of affixing labels to individual stationary process containers, as long as the alternative method identifies the containers to which it is applicable and conveys the information required by paragraph (f)(6) of this section to be on a label. The employer shall ensure the written materials are readily accessible to the employees in their work area throughout each work shift.

(f)(8) The employer is not required to label portable containers into which hazardous chemicals are transferred from labeled containers, and which are intended only for the immediate use of the employee who performs the transfer. For purposes of this section, drugs which are dispensed by a

pharmacy to a health care provider for direct administration to a patient are exempted from labeling.

(f)(9) The employer shall not remove or deface existing labels on incoming containers of hazardous chemicals, unless the container is immediately marked with the required information.

(f)(10) The employer shall ensure that workplace labels or other forms of warning are legible, in English, and prominently displayed on the container, or readily available in the work area throughout each work shift. Employers having employees who speak other languages may add the information in their language to the material presented, as long as the information is presented in English as well.

(f)(11) Chemical manufacturers, importers, distributors, or employers who become newly aware of any significant information regarding the hazards of a chemical shall revise the labels for the chemical within six months of becoming aware of the new information, and shall ensure that labels on containers of hazardous chemicals shipped after that time contain the new information. If the chemical is not currently produced or imported, the chemical manufacturer, importer, distributor, or employer shall add the information to the label before the chemical is shipped or introduced into the workplace again.

HCS Pictograms and Hazards

Kevin's note: This is where they just listed the pictures, which I'll add to the final copy.

Safety Data Sheets.

(g) *Safety data sheets.*

(g)(1) Chemical manufacturers and importers shall obtain or develop a safety data sheet for each hazardous chemical they produce or import. Employers shall have a safety data sheet in the workplace for each hazardous chemical which they use.

(g)(2) The chemical manufacturer or importer preparing the safety data sheet shall ensure that it is in English (although the employer may maintain copies in other languages as well), and includes at least the following section numbers and headings, and associated information under each heading, in the order listed (See Appendix D to §1910.1200--Safety Data Sheets, for the specific content of each section of the safety data sheet):

(i) Section 1, Identification;

(ii) Section 2, Hazard(s) identification;

(iii) Section 3, Composition/information on ingredients;

(iv) Section 4, First-aid measures;

(v) Section 5, Fire-fighting measures;

(vi) Section 6, Accidental release measures;

(vii) Section 7, Handling and storage;

(viii) Section 8, Exposure controls/personal protection;

(ix) Section 9, Physical and chemical properties;

(x) Section 10, Stability and reactivity;

(xi) Section 11, Toxicological information.

(xii) Section 12, Ecological information;

(xiii) Section 13, Disposal considerations;

(xiv) Section 14, Transport information;

(xv) Section 15, Regulatory information; and

(xvi) Section 16, Other information, including date of preparation or last revision.

Note 1 to paragraph (g)(2): To be consistent with the GHS, an SDS must also include the headings in paragraphs (g)(2)(xii) through (g)(2)xv) in order.

Note 2 to paragraph (g)(2): OSHA will not be enforcing information requirements in sections 12 through 15, as these areas are not under its jurisdiction.

(g)(3) If no relevant information is found for any sub-heading within a section on the safety data sheet, the chemical manufacturer, importer or employer preparing the safety data sheet shall mark it to indicate that no applicable information was found.

(g)(4) Where complex mixtures have similar hazards and contents (i.e. the chemical ingredients are essentially the same, but the specific composition varies from mixture to mixture), the chemical manufacturer, importer or employer may prepare one safety data sheet to apply to all of these similar mixtures.

(g)(5) The chemical manufacturer, importer or employer preparing the safety data sheet shall ensure that the information provided accurately reflects the scientific evidence used in making the hazard classification. If the chemical manufacturer, importer or employer preparing the safety data sheet becomes newly aware of any significant information regarding the hazards of a chemical, or ways to protect against the hazards, this new information shall be added to the safety data sheet within three months. If the chemical is not currently being produced or imported the chemical manufacturer or importer shall add the information to the safety data sheet before the chemical is introduced into the workplace again.

(g)(6)(i) Chemical manufacturers or importers shall ensure that distributors and employers are provided an appropriate safety data sheet with their initial shipment, and with the first shipment after a safety data sheet is updated;

(g)(6)(ii) The chemical manufacturer or importer shall either provide safety data sheets with the shipped containers or send them to the distributor or employer prior to or at the time of the shipment;

(g)(6)(iii) If the safety data sheet is not provided with a shipment that has been labeled as a hazardous chemical, the distributor or employer shall obtain one from the chemical manufacturer or importer as soon as possible; and,

(g)(6)(iv) The chemical manufacturer or importer shall also provide distributors or employers with a safety data sheet upon request.

(g)(7)(i) Distributors shall ensure that safety data sheets, and updated information, are provided to other distributors and employers with their initial shipment and with the first shipment after a safety data sheet is updated;

(g)(7)(ii) The distributor shall either provide safety data sheets with the shipped containers, or send them to the other distributor or employer prior to or at the time of the shipment;

(g)(7)(iii) Retail distributors selling hazardous chemicals to employers having a commercial account shall provide a safety data sheet to such employers upon request, and shall post a sign or otherwise inform them that a safety data sheet is available;

(g)(7)(iv) Wholesale distributors selling hazardous chemicals to employers over-the-counter may also provide safety data sheets upon the request of the employer at the time of the over-the-counter purchase, and shall post a sign or otherwise inform such employers that a safety data sheet is available;

(g)(7)(v) If an employer without a commercial account purchases a hazardous chemical from a retail distributor not required to have safety data sheets on file (i.e., the retail distributor does not have commercial accounts and does not use the materials), the retail distributor shall provide the employer, upon request, with the name, address, and telephone number of the chemical manufacturer, importer, or distributor from which a safety data sheet can be obtained;

(g)(7)(vi) Wholesale distributors shall also provide safety data sheets to employers or other distributors upon request; and,

(g)(7)(vii) Chemical manufacturers, importers, and distributors need not provide safety data sheets to retail distributors that have informed them that the retail distributor does not sell the product to commercial accounts or open the sealed container to use it in their own workplaces.

(g)(8) The employer shall maintain in the workplace copies of the required safety data sheets for each hazardous chemical, and shall ensure that they are readily accessible during each work shift to employees when they are in their work area(s). (Electronic access and other alternatives to maintaining paper copies of the safety data sheets are permitted as long as no barriers to immediate employee access in each workplace are created by such options.)

(g)(9) Where employees must travel between workplaces during a workshift, i.e., their work is carried out at more than one geographical location, the safety data sheets may be kept at the primary workplace facility. In this situation, the employer shall ensure that employees can immediately obtain the required information in an emergency.

(g)(10) Safety data sheets may be kept in any form, including operating procedures, and may be designed to cover groups of hazardous chemicals in a work area where it may be more appropriate to address the hazards of a process rather than individual hazardous chemicals.

However, the employer shall ensure that in all cases the required information is provided for each hazardous chemical, and is readily accessible during each work shift to employees when they are in their work area(s).

(g)(11) Safety data sheets shall also be made readily available, upon request, to designated representatives, the Assistant Secretary, and the Director, in accordance with the requirements of 29 CFR 1910.1020(e).

Training and Information.

(h) *Employee information and training.*

(h)(1) Employers shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new chemical hazard the employees have not previously been trained about is introduced into their work area. Information and training may be designed to cover categories of hazards (e.g., flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and safety data sheets.

(h)(2) Information. Employees shall be informed of:

(h)(2)(i) The requirements of this section;

(h)(2)(ii)Any operations in their work area where hazardous chemicals are present; and,

(h)(2)(iii) The location and availability of the written hazard communication program, including the required list(s) of hazardous chemicals, and safety data sheets required by this section.

(h)(3) Training. Employee training shall include at least:

(h)(3)(i) Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);

(h)(3)(ii) The physical, health, simple asphyxiation, combustible dust and pyrophoric gas hazards, as well as hazards not otherwise classified, of the chemicals in the work area;

(h)(3)(iii) The measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and,

(h)(3)(iv) The details of the hazard communication program developed by the employer, including an explanation of the labels received on shipped containers and the workplace labeling system used by their employer; the safety data sheet, including the order of information and how employees can obtain and use the appropriate hazard information.

Trade secrets.

(i) *Trade secrets.*

(i)(1) The chemical manufacturer, importer, or employer may withhold the specific chemical identity, including the chemical name, other specific identification of a hazardous chemical, or the exact percentage (concentration) of the substance in a mixture, from the safety data sheet, provided that:

(i)(1)(i) The claim that the information withheld is a trade secret can be supported;

(i)(1)(ii) Information contained in the safety data sheet concerning the properties and effects of the hazardous chemical is disclosed;

(i)(1)(iii) The safety data sheet indicates that the specific chemical identity and/or percentage of composition is being withheld as a trade secret; and,

(i)(1)(iv) The specific chemical identity and percentage is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of this paragraph (i).

(i)(2) Where a treating physician or nurse determines that a medical emergency exists and the specific chemical identity and/or specific percentage of composition of a hazardous chemical is necessary for emergency or first-aid treatment, the chemical manufacturer, importer, or employer shall immediately disclose the specific chemical identity or percentage composition of a trade secret chemical to that treating physician or nurse, regardless of the existence of a written statement of need or a confidentiality agreement. The chemical manufacturer, importer, or employer may require a written statement of need and confidentiality agreement, in accordance with the provisions of paragraphs (i)(3) and (4) of this section, as soon as circumstances permit.

(i)(3) In non-emergency situations, a chemical manufacturer, importer, or employer shall, upon request, disclose a specific chemical identity or percentage composition, otherwise permitted to be withheld under paragraph (i)(1) of this section, to a health professional (i.e. physician, industrial hygienist, toxicologist, epidemiologist, or occupational health nurse) providing medical or other occupational health services to exposed employee(s), and to employees or designated representatives, if:

(i)(3)(i) The request is in writing;

(i)(3)(ii) The request describes with reasonable detail one or more of the following occupational health needs for the information:

(i)(3)(ii)(A) To assess the hazards of the chemicals to which employees will be exposed;

(i)(3)(ii)(B) To conduct or assess sampling of the workplace atmosphere to determine employee exposure levels;

(i)(3)(ii)(C) To conduct pre-assignment or periodic medical surveillance of exposed employees;

(i)(3)(ii)(D) To provide medical treatment to exposed employees;

(i)(3)(ii)(E) To select or assess appropriate personal protective equipment for exposed employees;

(i)(3)(ii)(F) To design or assess engineering controls or other protective measures for exposed employees; and,

(i)(3)(ii)(G) To conduct studies to determine the health effects of exposure.

(i)(3)(iii) The request explains in detail why the disclosure of the specific chemical identity or percentage composition is essential and that, in lieu thereof, the disclosure of the following information to the health professional, employee, or designated representative, would not satisfy the purposes described in paragraph

(i)(3)(ii) of this section:

(i)(3)(iii)(A) The properties and effects of the chemical;

(i)(3)(iii)(B) Measures for controlling workers' exposure to the chemical;

(i)(3)(iii)(C) Methods of monitoring and analyzing worker exposure to the chemical; and,

(i)(3)(iii)(D) Methods of diagnosing and treating harmful exposures to the chemical;

(i)(3)(iii)(iv) The request includes a description of the procedures to be used to maintain the confidentiality of the disclosed information; and,

(i)(3)(iii)(v) The health professional, and the employer or contractor of the services of the health professional (i.e. downstream employer, labor organization, or individual employee), employee, or designated representative, agree in a written confidentiality agreement that the health professional, employee, or designated representative, will not use the trade secret information for any purpose other than the health need(s) asserted and agree not to release the information under any circumstances other than to OSHA, as provided in paragraph (i)(6) of this section, except as authorized by the terms of the agreement or by the chemical manufacturer, importer, or employer.

(i)(4) The confidentiality agreement authorized by paragraph (i)(3)(iv) of this section:

(i)(4)(i) May restrict the use of the information to the health purposes indicated in the written statement of need;

(i)(4)(ii) May provide for appropriate legal remedies in the event of a breach of the agreement, including stipulation of a reasonable pre-estimate of likely damages; and,

(i)(4)(iii) May not include requirements for the posting of a penalty bond.

(i)(5) Nothing in this standard is meant to preclude the parties from pursuing non-contractual remedies to the extent permitted by law.

(i)(6) If the health professional, employee, or designated representative receiving the trade secret information decides that there is a need to disclose it to OSHA, the chemical manufacturer, importer, or employer who provided the information shall be informed by the health professional, employee, or designated representative prior to, or at the same time as, such disclosure.

(i)(7) If the chemical manufacturer, importer, or employer denies a written request for disclosure of a specific chemical identity or percentage composition, the denial must:

(i)(7)(i) Be provided to the health professional, employee, or designated representative, within thirty days of the request;

(i)(7)(ii) Be in writing;

(i)(7)(iii) Include evidence to support the claim that the specific chemical identity or percent of composition is a trade secret;

(i)(7)(iv) State the specific reasons why the request is being denied; and,

(i)(7)(v) Explain in detail how alternative information may satisfy the specific medical or occupational health need without revealing the trade secret.

(i)(8) The health professional, employee, or designated representative whose request for information is denied under paragraph (i)(3) of this section may refer the request and the written denial of the request to OSHA for consideration.

(i)(9) When a health professional, employee, or designated representative refers the denial to OSHA under paragraph (i)(8) of this section, OSHA shall consider the evidence to determine if:

(i)(9)(i) The chemical manufacturer, importer, or employer has supported the claim that the specific chemical identity or percentage composition is a trade secret;

(i)(9)(ii) The health professional, employee, or designated representative has supported the claim that there is a medical or occupational health need for the information; and,

(i)(9)(iii) The health professional, employee or designated representative has demonstrated adequate means to protect the confidentiality.

(i)(10)(i) If OSHA determines that the specific chemical identity or percentage composition requested under paragraph (i)(3) of this section is not a "bona fide" trade secret, or that it is a trade secret, but the requesting health professional, employee, or designated representative has a legitimate medical or occupational health need for the information, has executed a written confidentiality agreement, and has shown adequate means to protect the confidentiality of the information, the chemical manufacturer, importer, or employer will be subject to citation by OSHA.

(i)(10)(ii) If a chemical manufacturer, importer, or employer demonstrates to OSHA that the execution of a confidentiality agreement would not provide sufficient protection against the potential harm from the unauthorized disclosure of a trade secret, the Assistant Secretary may issue such orders or impose such additional limitations or conditions upon the disclosure of the requested chemical information as may be appropriate to assure that the occupational health services are provided without an undue risk of harm to the chemical manufacturer, importer, or employer.

(i)(11) If a citation for a failure to release trade secret information is contested by the chemical manufacturer, importer, or employer, the matter will be adjudicated before the Occupational Safety and Health Review Commission in accordance with the Act's enforcement scheme and the applicable Commission rules of procedure. In accordance with the Commission rules, when a chemical manufacturer, importer, or employer continues to withhold the information during the

contest, the Administrative Law Judge may review the citation and supporting documentation "in camera" or issue appropriate orders to protect the confidentiality of such matters.

(i)(12) Notwithstanding the existence of a trade secret claim, a chemical manufacturer, importer, or employer shall, upon request, disclose to the Assistant Secretary any information which this section requires the chemical manufacturer, importer, or employer to make available. Where there is a trade secret claim, such claim shall be made no later than at the time the information is provided to the Assistant Secretary so that suitable determinations of trade secret status can be made and the necessary protections can be implemented.

(i)(13) Nothing in this paragraph shall be construed as requiring the disclosure under any circumstances of process information which is a trade secret.

Effective Dates.

(j) *Effective dates.*

(j)(1) Employers shall train employees regarding the new label elements and safety data sheets format by December 1, 2013.

(j)(2) Chemical manufacturers, importers, distributors, and employers shall be in compliance with all modified provisions of this section no later than June 1, 2015, except:

(j)(2)(i) After December 1, 2015, the distributor shall not ship containers labeled by the chemical manufacturer or importer unless the label has been modified to comply with paragraph (f)(1) of this section.

(j)(2) (ii) All employers shall, as necessary, update any alternative workplace labeling used under paragraph (f)(6) of this section, update the hazard communication program required by paragraph (h)(1), and provide any additional employee training in accordance with paragraph (h)(3) for newly identified physical or health hazards no later than June 1, 2016.

(j)(3) Chemical manufacturers, importers, distributors, and employers may comply with either §1910.1200, revised as of October 1, 2011, or the current version of this standard or both during the transition period.