NPS Reference Manual 50B Occupational Safety and Health Program

Chapter 30: Hazard Communication

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Chapter 30

Hazard Communication

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30.1 Introduction

National Park Service (NPS) employees have both a need and a right to know the hazards and identities of the chemicals they are exposed to when working and the NPS has an obligation to inform them of these matters and comply with regulatory requirements. Employees will also know what protective measures are available to prevent adverse effects when working with or near these chemicals. It is NPS policy that parks provide this information to employees through the implementation of a Hazard Communication (HAZCOM) Program.

30.2 Scope

This chapter addresses the use and/or exposure of hazardous chemicals and materials by all employees, volunteers, and others under direct NPS supervision (collectively referred to as employees). Hazardous chemicals are frequently used at NPS for:

- Janitorial operations.
- Maintenance operations.
- Integrated pest management.
- Curatorial (exhibit).
- Natural Resource management operations.
- Concessions.

Some hazardous chemicals may be excluded from this policy. Specifically, a consumer product in which the NPS can show it is used in the workplace for the purpose intended by the manufacturer and the use results in a duration and frequency of exposure which is not greater than what a consumer would experience. All other chemicals, however will be included.

Most small laboratories within the NPS, such as those located at water treatment facilities, or those established as a part of a natural resources management or investigation activity, will follow the requirements of the HAZCOM program because they are characterized by limited facilities where a fixed number of analyses or routine procedures are conducted. Other, larger laboratory facilities will comply with requirements of 29 CFR 1910.1450, Occupational Exposure to Hazardous Chemicals in Laboratories, in addition to the requirements of the Hazard Communication Standard, as outlined in 29 CFR 1910.1200(b)(3). Refer to the RM50B chapter on Laboratory Safety and Chemical Hygiene for more information.

30.3 References

Detailed information for implementation is contained in the following references.

- 1. Occupational Safety and Health Administration (OSHA), 29 CFR 1910.1200 Hazard Communication.
- 2. United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).
- 3. OSHA, 29 CFR 1910.1020 Access to Employee Exposure and Medical Records.
- 4. OSHA, 29 CFR 1910.1450 Occupational Exposure to Hazardous Chemicals in Laboratories.

5. OSHA, Hazard Communication Small Entity Compliance Guide for Employers that Use Hazardous Chemicals, OSHA 3695-03 2014.

30.4 Definitions

This section includes a list of definitions relevant to hazard communication programs.

| Name | Definition |
|-----------------------|--|
| Chemical | Any substance or mixture of substances. |
| Chemical Manufacturer | An employer with a workplace where chemical(s) are produced for use or distribution. |
| Consumer Product | Any consumer product or hazardous substance, as defined in the Consumer Product Safety Act and Federal Hazardous Substances Act, where the employer can show it is used in the workplace for the purposes 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 can reasonably be experienced by consumers when used for the purpose intended. |
| Container | Any bag, barrel, 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 containers. |
| Exposure | When an employee is subject to a hazardous chemical in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption). Exposure also includes accidental exposure or potential exposure. |
| Health Hazard | A chemical which poses one of the following effects: acute toxicity, skin corrosion or irritation, serious eye damage or eye irritation; respiratory or skin sensitization, germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity, or aspiration hazard. |

| Name | Definition |
|--------------------|---|
| Hazardous Chemical | Any chemical which is classified as a physical hazard or health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified. For purposes of a HAZCOM program, a hazardous chemical does not include: |
| | Hazardous wastes |
| | Hazardous substances which as part of a remedial or removal action under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) |
| | Tobacco or tobacco products |
| | Wood or wood products (except those treated with a hazardous chemical) |
| | Food and alcoholic beverages |
| | • Cosmetics |
| | Articles which are manufactured items with specific shape and design other than a fluid or particle |
| | • Food and Drug Administration approved drugs which are in solid, final form (e.g., tablets or pills), packaged drugs for retail sale, and drugs for personal consumption in the workplace (e.g., first aid supplies) |
| | Consumer product (see definition) |
| | Biological hazards |
| | Ionizing and nonionizing radiation |
| | Nuisance particulates that do not pose physical or health hazard |
| Hazard Statement | 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. |
| Immediate Use | Hazardous chemical under the control of and used only by the person who transfers it from the labeled container and only within the work shift in which it is transferred. |
| Label Elements | The specified pictogram, hazard statement, signal word, and precautionary statement for each hazard class and category attached to the outside of the container. |
| Mixture | A combination or solution composed of two or more substances in which they do not react. |
| Pictogram | A composition that may include a symbol plus other graphic elements that is intended to convey specific information about the hazards of a chemical. Eight pictograms are designated under the OSHA standard. |
| Physical Hazard | A chemical which poses one of the following effects: explosive, flammable, oxidizer, self-reactive, pyrophoric, self-heating, organic peroxide, corrosive to metal, gas under pressure, or in contact with water that emits flammable gas. |

| Name | Definition |
|-------------------------|---|
| Precautionary Statement | A phrase describing recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemicals, or improper storage or handling. |
| Product Identifier | The name or number used for a hazardous chemical on the label or in the Safety Data Sheet. It provides a unique means by which the user can identify the chemical. |
| Pyrophoric Gas | A chemical in a gaseous state that will ignite spontaneously in air at a temp of 134 degrees or below. |
| Safety Data Sheet (SDS) | In accordance with OSHA regulations, printed material that contains information on the potential hazards (e.g., health, fire, reactivity and environmental) and how to work safety with the chemical product. |
| Secondary container | A container (e.g., spray bottle, bucket, cup) holding a chemical product which is not the original container supplied by the manufacturer or distributor. |
| Signal Word | 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 are "danger" and "warning." "Danger" is used for more severe hazards, while "Warning" is used for less severe hazards. |
| Simple Asphyxiant | A substance or mixture that displaces oxygen in the ambient atmosphere, causing oxygen deprivation in those who are exposed leading to unconsciousness state and death. |
| Substance | Chemical elements and their compounds in the natural state or obtained by a production process, including any additives necessary to preserve the stability of the product and any impurities derived from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition. |
| Work Area | A space in a workplace where hazardous chemicals are stored, produced or used, and where employees are present. |

30.5 Responsibilities

This section addresses the responsibilities and requirements for all HAZCOM related roles.

30.5.1 Superintendents or Site Managers

The superintendent or site manager is responsible for:

- 1. Ensuring the development and implementation of a written HAZCOM program.
- 2. Assigning a HAZCOM program coordinator.
- 3. Ensuring that supervisors and affected employees comply with program requirements.

30.5.2 HAZCOM Program Coordinator

The program coordinator is responsible for:

- 1. Having familiarity with the requirements of the HAZCOM standard and this chapter.
- 2. Ensuring the program is reviewed on a regular basis, corrective actions are taken and the program is up-to-date.
- 3. Ensuring the plan is available to all employees.
- 4. Providing information, as requested, concerning health effects and exposure symptoms listed on SDSs.
- 5. Overseeing the management of SDSs and the chemical inventory.
- 6. Maintaining and documenting an effective HAZCOM training program.
- 7. Considering the health exposure of chemicals used in the workplace and evaluating opportunities to use less hazardous chemical substitutes.

30.5.3 Supervisors

Supervisors are responsible for:

- 1. Establishing and maintaining a hazardous chemicals inventory list.
- 2. Ensuring that each work area/shop/remote work site maintains a SDS for each hazardous chemical used in that area. Supervisors may assign an NPS employee(s) with the responsibility of obtaining and maintaining SDSs for hazardous chemicals if one is not provided in the shipment.
- 3. Ensuring that all hazardous chemicals are properly labeled and stored upon receipt.
- 4. Ensuring that all employees receive training regarding hazards and practices specific to their work area at the time of their assignment (before use) and whenever a new hazard/chemical is introduced into their work environment, or there is a change in practice, policy or procedure. Training records will also be maintained.
- 5. Conducting periodic inspections of hazardous chemical storage and container locations for proper labeling and container condition.

30.5.4 NPS Contracting Officers/Contracting Officer Representatives, Concessions Specialists

In multi-employer worksites:

- 1. NPS employees (contracting officers, contracting officer representatives, and concession specialists) who work with entities such as contractors and concessioners are responsible for ensuring that contracts and agreements have language included stating the need for the entity to comply with the OSHA HAZCOM standard.
- 2. Contracting Officers/Contracting Officer Representatives/Concessions Specialists are responsible for ensuring:
 - a) Contractors or partners supply the NPS with access to SDSs for the hazardous chemicals they bring to the NPS property as well as provide information on their labeling system and inform NPS of any precautionary measures that should be taken to minimize adverse exposure effects.
 - b) NPS provides contractors working on NPS property with access to the park's SDSs as well as information on any precautionary measures that contractors need to be aware of, and information on the park workplace labeling system.

30.5.5 Employees

Employees are responsible for:

- 1. Reading and understanding the labels and SDS for each hazardous chemical they will use to include ensuring the product is approved for use for the specific project.
- 2. Following all precautions for safe handling and use listed on the label and in the SDS, including use of appropriate personal protective equipment and storage.
- 3. Notifying their supervisor of any missing SDS for chemicals used in the workplace and communicate any questions they have.
- 4. Ensuring that chemicals in original containers retain their labels and that chemicals transferred to secondary containers are properly labeled as directed in this program.
- 5. Attending GHS training and site specific HAZCOM training.

30.6 Program Elements

This section describes the basic program elements for a HAZCOM program.

30.6.1 Identify Responsible Employees

NPS park management and supervisors share the general responsibility of adherence to the HAZCOM policy and program implementation. To enhance the team's ability to meet compliance and evaluate the overall success of the program, the superintendent or site manager shall designate all supervisors to work in coordination with the park's HAZCOM program coordinator to complete the following actions:

1. Updating the inventory of hazardous chemicals.

- 2. Obtaining and maintaining SDSs.
- 3. Ensuring adequate, intact labeling of all hazardous chemical containers.
- 4. Ensuring that initial and follow-up employee training is conducted.

30.6.2 Prepare a Written Hazard Communication Program

The NPS park/office shall prepare a written program that describes how the requirements for labels and other forms of warning will be met, how and where SDSs will be maintained, how employee information will be provided, how employees will be informed and trained, required protective measures and work practices, and how the park/office will share information with other employers (such as contractors and concessionaires) working on the site. The written program will reflect the park/office specific organization, operations and procedures. Refer to the template written HAZCOM plan available from NPS Office of Risk Management.

30.6.3 Identify and Maintain a List of Hazardous Chemicals

Identifying and maintaining a list of hazardous chemicals is necessary for the safety of employees.

- 1. An up-to-date inventory of hazardous chemicals (present, used, and stored) must be available with the written HAZCOM plan.
- 2. The inventory provides a list of products that require an SDS, and will be readily available:
 - a) To all employees who use hazardous chemicals.
 - b) To all employees who may be exposed to hazardous chemicals.
 - c) For review and training for employees.

30.6.4 Maintain Safety Data Sheets

The role of the SDS is to provide detailed information on each hazardous chemical. This section provides further details about SDSs.

- 1. The SDS provides necessary information to employees, including:
 - a) Potential hazardous effects.
 - b) Physical and chemical characteristics.
 - c) Recommendations for appropriate protective measures.
- 2. Every chemical available for use by an employee that is on the hazardous chemical inventory will have an accompanying SDS.
- 3. Employees shall not use any chemical that has no accompanying SDS.
- 4. SDSs will be readily accessible to employees, volunteers, and interns when they are in their work areas during their work shifts. The park/office is responsible for deciding what is appropriate for its particular workplace. Electronic access to SDSs is acceptable as long as access is not impeded in any way (e.g., password protected computer, physical access to a computer, or intermittent internet access).
- 5. The written HAZCOM plan should include:

- a) How SDSs will be maintained at the park/office such as in notebooks or in a computer with terminal access.
- b) How employees will have access to them when they are in their work area during the work shift.
- c) Procedures to follow when the SDS is not received at the time of the first shipment of the product.
- 6. SDSs will be maintained as a part of the employee's exposure record for a period not less than 30 years. Alternatively, the chemical inventory may be maintained for 30 years in lieu of the actual SDSs so long as the inventory provides the chemical name (product identifier), and information on where the product was used in the workplace and when.

30.6.5 Label Containers

All hazardous chemicals purchased or received at the park/office will be properly labeled. This section further describes the policies for labeling containers that align with the OSHA HAZCOM and Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

- 1. Manufacturer or distributor labels must include the:
 - a) Identity of the material (the identity will be linked to that on the inventory and the SDS).
 - b) Pictograms.
 - c) A signal word.
 - d) Hazard and precautionary statements.
 - e) Name and address of the manufacturer or distributor.
- 2. The supervisor and/or HAZCOM coordinator is responsible for:
 - a) Establishing a workplace labeling system for labeling secondary containers and inadequately labeled containers and designating employees to ensure proper container labeling.
 - b) Describing the labeling system in the written HAZCOM program.
- 3. Consumer products (see section 30.4 for definition) that are used according to their intended use *and* for the frequency and duration reasonably expected for consumers do not require any additional labeling.
- 4. Pesticides, when labeled in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act do not require additional labeling.
- 5. Secondary containers for immediate use (see section 30.4 for definitions) that remain in the constant control of the person that made the transfer do not require any labeling.
- 6. Workplace labeling (described below) will be used for the following:
 - a) Consumer products that do not meet the definition of a consumer product because they are not used with the same intended manner and/or frequency or duration of exposure.
 - b) Secondary containers that do not meet the definition of a secondary container.
- 7. Workplace labeling systems will either meet all label requirements specified in 30.6.5 (1)

above, OR contain a product identifier and words, pictures, symbols of a combination that provides at least general information about the chemical's hazards, in conjunction with other information immediately available (e.g., SDSs) that in total will provide the employee with specific information about the physical and health hazards of the chemical.

NOTE: American National Standard for Hazardous Industrial Chemicals—Precautionary Labeling, the Hazardous Materials Identification System (HMIS) or the National Fire Protection Association (NFPA) hazard diamond rating system may be used as part of a workplace labeling system. They will be used correctly and consistently, and may be used in conjunction with other existing labels. When used, employees will be trained on how to interpret and understand these labeling systems.

30.6.6 Provide Training

Training employees on HAZCOM is critical. This section describes training policies.

- 1. NPS employees will receive information and training on hazardous chemicals in the work area.
- 2. The HAZCOM program coordinator and/or supervisors will ensure that employees receive training at the time of initial assignment, and when new chemical hazards are introduced. Training will include information on:
 - a) The requirements of 29 CFR 1910.1200, Hazard Communication and details of the workplace HAZCOM program.
 - b) Physical and health hazards of the chemicals in the work area.
 - c) The location and availability of the park written HAZCOM program including the required chemical inventory and SDSs.
 - d) The hazards of chemicals in the workplace and how to determine their presence or release in the work area.
 - The measures employees can take to protect themselves such as safe handling and use, emergency procedures, and personal protective equipment to be used.
 - f) How to read and interpret a GHS label received on a shipped container, an SDS, and the workplace labeling system.
 - g) The mechanism for informing workers of hazards of non-routine tasks.
- 3. Additional training topics may also include protocols for the storage of:
 - a) Flammables.
 - b) Oxidizers.
 - c) Organics and other chemicals.
 - d) Chemical capability.
 - e) First aid procedures.
 - f) Regulated exposure levels.

- g) Signs and symptoms of exposure.
- h) Procedures for purchasing chemicals.
- 4. Retraining is required if an employee demonstrates a lack of understanding in any of the training topics.
- 5. Information and training may be given either by individual chemical or by categories of hazards, such as flammability or carcinogenicity.
- 6. Employee training records will be maintained for the duration of employment plus one year.

30.6.7 Review and Evaluate the Program

The HAZCOM Program should be reviewed on a regular basis (e.g., annually) to evaluate its effectiveness and ensure that it is current. Supervisors should review their workplace frequently enough to ensure accuracy of the hazardous chemical inventory, compliance with labeling requirements, maintenance of SDSs, and effectiveness of employee training.

30.6.8 Establish Hazard Communication—Employee Right to Know Stations

Right to Know Stations are a good way to provide HAZCOM information. These stations are best located where employees can easily access them without restriction. Each station should include:

- 1. A list of all hazardous chemicals located at the work area covered by the station.
- 2. A binder containing an SDS for each hazardous chemical at the shop or work site, or a computer with access to the SDSs, if stored electronically.
- 3. A copy of the written Hazard Communication Program.
- 4. Reference materials to assist workers in understanding SDSs.

30.6.9 Multi-Employer Worksites

When contractors or other partners working at the park are potentially exposed to hazardous chemicals, the park/office will provide information on the park workplace labeling system and precautionary measures as well as access to SDSs. When a contractor or other employer (e.g., partner or concessioner) uses hazardous chemicals in the park/office that could result in an exposure of NPS employees, the contractor or other employer must provide information on their workplace labeling system and precautionary measures as well as access to SDSs.

30.7 Technical Appendices

Appendix A: Template Park/Office Hazard Communication Plan

[INSERT PARK NAME]

Hazard Communication Program

Plan Created: [Insert Date]

Plan Revised: [Insert Revision Date if Applicable]

Superintendent Signature

[Insert Signature]

of Approval:

Date: [Insert Signed Date]

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Executive Summary

This Hazard Communication (HAZCOM) program for [Insert Park Name (Park Abbreviation)] provides information to [Insert Park Abbreviation] employees about the hazardous chemical products used in the workplace. Hazardous chemicals are any chemicals that can cause a physical (e.g., explosive or flammable) or health hazard (e.g., carcinogen, toxic, or irritant).

This HAZCOM program provides information to employees about hazardous chemicals used at the park by:

- Identifying all hazardous chemicals within the park.
- Labeling chemical containers.
- Providing a Safety Data Sheet (SDS) for each hazardous chemical used in the work environment.
- Training employees to recognize and interpret labels, warnings, color-coding, signs, etc. that are affixed to containers so they can properly protect themselves against potential hazards.
- Training employees to understand the elements of the SDS and to recognize possible risks to health and physical harm.
- Ensuring this written program is available to any employee, upon request.

[Insert Park Name] Policy

This document serves as the [Insert Park Name (Park Abbreviation)] Hazard Communication (HAZCOM) Program, which is based on the requirements of the revised Hazard Communication Standard (HCS), aligned with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). The park is working to make the necessary changes to its HAZCOM program to ensure conformance by the June 1, 2016 deadline.

This program applies to any chemical present in [Insert Park Abbreviation] that workers may be exposed to during park operations or in a park emergency. This program provides information about exposure to hazardous chemicals in the workplace, and meets the requirements for a written HAZCOM program as set forth in 29 CFR 1910.1200(e).

[Choose location details based on park conditions:]

- *Hard Copy* At least one copy of the hazard communication program is available in [Insert Location] for review.
- *Electronic Copy* An electronic copy of the HAZCOM program is accessible on the [Insert File Location].
- [Insert Employee Name, Contact Information] is the program coordinator and is responsible for reviewing and updating the plan as necessary.

Best Practices

Though not directly stipulated under the HCS, [Insert Park Abbreviation] will consider best practices to reduce and/or minimize the exposure of hazardous chemicals to our employees, thereby reducing the regulatory burden of this program. These best practices include:

- Maintaining the smallest possible inventory of chemicals to meet immediate needs and keeping the work area clean and orderly.
- Periodically reviewing the stock of chemicals on hand and recycling unused chemicals when possible.
- Using chemicals in as small quantities as possible to minimize exposure and reduce possible harmful effects.
- Substituting less toxic materials whenever possible.
- Using hazardous chemicals appropriately and in such a way that reduces hazardous waste generation.
- Storing and using hazardous chemicals in their original containers.

Roles and Responsibilities

[Example content below – update for park information]

Superintendent

Responsibilities include:

- Developing and implementing a written HAZCOM program.
- Assigning a HAZCOM Program Coordinator.
- Ensuring that supervisors and employees comply with program requirements.

HAZCOM Program Coordinator

Responsibilities include:

- Ensuring the program is up-to-date and reviewed on a regular basis.
- Ensuring this plan is available to all employees and providing information, as requested, concerning health effects and exposure symptoms listed on SDSs.
- Conducting immediate corrective action for deficiencies found in the program.
- Maintaining and documenting an effective Hazard Communication training program.
- Considering the health exposure of all chemicals used in the workplace when making purchases. Evaluate if it is feasible to procure a less hazardous substance and clear any new purchase of hazardous chemicals with the [Insert Name of Employee, Position].
- Keeping management informed of necessary changes and informing outside employers/contractors when needed.
- Overseeing the maintenance of SDSs and chemical inventory.

Supervisors

Responsibilities include:

- Obtaining an SDS for chemicals purchased from retail sources directly from the manufacturer.
- Maintaining SDSs in a repository, and including all hazardous chemicals used in the workplace in the repository.
- Maintaining a work-area notebook of all SDSs used in the work environment (right to know station).
- Establishing and maintaining a hazardous chemical inventory list.
- Ensuring labels for all chemicals and all in-house containers are legible.
- Following the program standards and monitoring the park for continual proper use, storage and labeling of chemicals.
- Conducting periodic inspections of hazardous chemicals storage areas and containers for proper labeling and container condition.

[Insert Park Abbreviation] Employees

Responsibilities include:

- 1. Complying with the requirements of this program.
- 2. Using only chemicals for which you have been trained.
- 3. Using chemicals appropriately for specific assigned tasks.
- 4. Following established safety and health procedures.
- 5. Referencing the container labels when in need of chemical information and requesting additional information if required.
- 6. Wearing proper personal protective equipment when required.
- 7. Reporting any problems regarding the storage or use of chemicals to your supervisor.
- 8. Providing labeling for secondary containers that meet the requirements outlined in this plan.
- 9. Updating the hazardous chemical inventory when new chemicals are accepted into the park.
- 10. Notifying your supervisor of missing SDSs for any chemicals used in the workplace.
- 11. Reading and understanding the SDS for each hazardous chemical you use.

Contractors/Other Employers

Responsibilities include:

- Complying will all aspects of the [Insert Park Abbreviation] HAZCOM program.
- Coordinating information with the park liaison for additional information.
- Notifying the [Insert Position, Name] before bringing any chemicals onto park property.
- Ensuring all contractor employees comply with storage and use of chemicals requirements.

Contracting Officer Representatives and Concession Specialists

Responsibilities include:

- Ensuring that contractors or partners supply the park with a copy of their HAZCOM program and copies of SDSs for all hazardous chemicals entering park property and to which NPS employees may be exposed.
- Providing contractors working on NPS property, with a copy of the park's HAZCOM program.

Container Labeling

All employees are responsible for ensuring that containers of hazardous chemicals are labeled legibly and in accordance with HCS requirements. The program coordinator will act as a reference for park employees that have questions or concerns regarding container labeling.

Container labels must include¹:

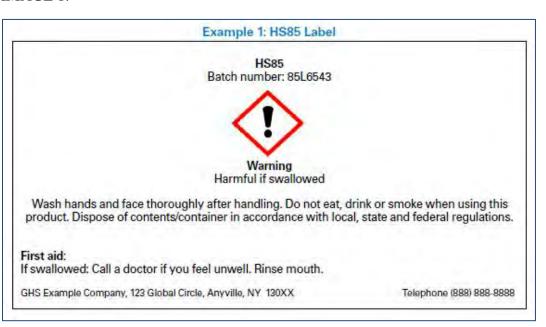
Visitor & Resource Protection, Associate Director Approved: 04/08/2019

¹ OSHA "Brief Hazard Communication Standard: Labels and Pictograms." Web. [July 2014] https://www.osha.gov/Publications/OSHA3636.pdf>

| Required Element | Details |
|--------------------------------|--|
| Supplier's contact information | Name, address, and contact information for the manufacturer, importer or other responsible party. [Example: HS85] |
| Product Identifier | Product name, code number or batch number. Name of product or code. [Example: Clark and Kensington Flat Enamel Latex Paint] |
| Signal word | Indicates relative severity of hazards of the chemical. [Example: WARNING or DANGER] |
| Hazard Statement | Describe the nature and degree of the chemical's hazards. [Example: Harmful if swallowed.] |
| Precautionary statement | The recommended measures to take to minimize hazards from exposure. [Example: Prevention: Wash hands and face thoroughly after handling. Do not eat, drink or some when using this product.] |
| Pictogram | There are nine graphic symbols, or pictograms used to communicate specific information about the hazards of a chemical. See Appendix Table 1 SDS Pictograms for how to interpret images. Example: |

See an example label, Image 1, below:

IMAGE 1:



What are Secondary Containers?

Secondary containers are containers other than the original container provided by the manufacturer. At parks, a common example of a secondary container is a spray bottle which contains a hazardous chemical diluted with water.

Secondary Container Labeling

Whenever possible, it is [Insert Park Abbreviation] HAZCOM policy to maintain hazardous chemicals in the container in which they were received. However, there are times when a secondary container is necessary (e.g., diluting a chemical). For secondary containers, labels will include the information from the original supplier's label or an alternative park label. The alternative park label must include the product identifier, a combination of words, pictograms, or symbols to convey hazards and precautions AND immediate access to any other container information not present on the label.

[Insert details on any park-specific secondary container labeling system]

Temporary Containers

A secondary container containing a hazardous chemical that is intended for immediate use (within one work shift), requires no secondary label as long as the temporary container remains under the strict control of the employee using the product at all times during the work shift.

Safety Data Sheets

The HCS requires [Insert Park Abbreviation] to provide SDSs to communicate the hazards of hazardous chemical products. An SDS is comprised of 16 uniform sections that include:

Section 1: Identification

- Product identifier.
- Manufacturer or distributor name, address, and phone number.
- Emergency phone number.
- Recommended use.
- Restrictions on use.

Section 2: Hazard(s) Identification

- Important hazards regarding the chemical.
- Required label elements.

Section 3: Composition/Information on Ingredients

- Information on chemical ingredients.
- Trade secret claims.

Section 4: First Aid Measures

- Important symptoms/ effects, acute, delayed.
- Required treatment.

Section 5: Fire Fighting Measures

- Suitable extinguishing techniques, equipment.
- Chemical hazards from fire.

Section 6: Accidental Release Measures

- Emergency procedures.
- Protective equipment.
- Proper methods of containment and cleanup.

Section 7: Handling and storage

Precautions for safe handling and storage, including incompatibilities.

Section 8: Exposure Controls/Personal Protection

- OSHA's Permissible Exposure Limits (PELs).
- Threshold Limit Values (TLVs).
- Appropriate engineering controls.
- Personal protective equipment (PPE).

Section 9: Physical and Chemical Properties

Chemical's characteristics.

Section 10: Stability and Reactivity

Chemical stability and possibility of hazardous reactions.

Section 11: Toxicological Information

- Includes routes of exposure.
- Related symptoms, acute and chronic effects.
- Numerical measures of toxicity.

Section 12: Ecological Information

Not mandatory

Section 13: Disposal Considerations

Not mandatory

Section 14: Transport Information

Not mandatory

Section 15: Regulatory Information

Not mandatory

Section 16: Other Information

The date of preparation or last revision.²

As manufacturers update a Material Safety Data Sheets (MSDS) to an SDS and send the updated SDS to the park with the next product shipment, the HAZCOM Program Coordinator, [Insert Name and Position] will transition the MSDS to the appropriate SDS inventory system as new products are received. The HAZCOM Program Coordinator is responsible for establishing and monitoring the park SDS program. Copies of SDSs will be kept in the [Insert Name of Documentation Repository] and stored in [Insert Location]. [Insert if SDS Forms are Stored in an Alternative Format in another Location]. Employees can access these documents by [Insert Access Protocol].

In the event that an SDS is not received for a chemical at the time of receiving the initial shipment, the appropriate division/department supervisor will:

- Go online and locate the product's SDS, or
- Contact the manufacturer or supplier and request a SDS.

In the event that an SDS is not available, contact your supervisor or the individual responsible for maintaining the HAZCOM plan. In the event that a revised SDS is received, replace the current SDS with the most up-to-date version.

List of Hazardous Chemicals

The park's HAZCOM Program Coordinator, [Insert Name/Position], is responsible for overseeing the development and update of an inventory of all known hazardous chemicals in the park. This inventory is attached to this program (see template inventory in the Appendices). Each chemical is listed by name, location in which the chemical is used, and location where an employee can locate the SDS for more information.

When a new chemical is received:

- 1. Check the inventory to see if the chemical is listed.
- 2. Add the chemical to the inventory within one week if it is not already documented.

Employee Information and Training

[Insert Name and Position OR Supervisors is/are] responsible for employee information and training.

The park/office will use a standard form for documenting that training has occurred. See the Appendices for the template form.

[Insert Park Abbreviation] required training sessions include initial orientation training, job or task-specific training for new chemicals and/or non-routine tasks, and immediate on-the spot training. See the

² OSHA "Quick Card" Web. [July 2014] < https://www.osha.gov/Publications/HazComm_QuickCard_SafetyData.html>

following table for details:

| Type of Training | Content of Training | Responsible Person(s) |
|--|--|---|
| Initial Orientation Training | All new employees will receive safety orientation training covering the elements of the Hazard Communication Program. This training will cover: Requirements of the 20 CFR 1910.1200 standard. Location and availability of the written Hazard Communication Program. Location and availability of the chemical inventory used in the workplace. Explanation of the chemical labeling system (including how to read pictograms and other parts of a chemical label and how to read a SDS). Location of SDSs. The specific physical and health hazard of all chemicals in the workplace. Specific control measures for protection from physical or health hazards. | [Enter individual(s) responsible for providing general HAZCOM training] |
| Job or Task- Specific Training and when a new chemical is introduced into the work area/non-routine tasks | Employees will receive on-the-job training from their supervisor. This training will cover the proper use, inspection and storage of necessary personal protective equipment, and job-specific chemical safety training. This training and information will be given to all relevant employees any time a new chemical is introduced to the workplace. [Input additional training information – how training will be presented and what it will include] | Supervisors |
| Immediate on-the spot Training | Supervisors are responsible for conducting immediate on-the-spot training for any employee who requests additional information or exhibits a lack of understanding of the park's HAZCOM program. | Supervisors |

Hazards of Non-routine Tasks

Sometimes, park employees may need to perform non-routine tasks that involve the use of hazardous chemicals. For these non-routine tasks, park supervisors are responsible for:

- Conducting a hazard determination to assess the employee's exposure to the hazardous chemical(s).
- Determining precautions that must be taken to minimize the exposure, such as engineering controls, administrative controls, or personal protective equipment.
- Providing specific training on the hazards.

Other Employers/Contractors or Concessioners

In the event that any outside employer (e.g., a concessioner employee) and/or contractor has workers that may be exposed to a hazardous chemical while working on park property, the primary liaison for that employer (e.g., contracting officer representative or concession specialist), [Insert Name and Position], will ensure that the employer/contractor is informed of:

- Onsite access to SDSs for hazardous chemicals their employees may be exposed to while working.
- Precautionary measures their employees need to take during normal operations and foreseeable emergencies.
- Information on the chemical container labeling system used at the park.

Chemicals in Unlabeled Pipes

[If applicable:] Inform all employees working in areas where chemicals are transferred through unlabeled pipes about the identity and hazards of the chemicals and any precautionary measures that should be followed. Chemicals in unlabeled pipes will be documented in the park's hazardous chemical inventory.

[If not applicable:] In [Insert Park Name], no chemicals are transferred through unlabeled pipes at this time. In the event that this changes, [Insert Park Name] will inform employees about the identity and hazards of the chemicals and any precautionary measures that should be followed.

Program Availability

A copy of this program is available to employees at any time and is located at [Insert Locations where **Program is Posted/Maintained**]. Additionally, the program is available for others who request it (e.g., contractors, other employers, or OSHA employees).

Appendices

Appendix I: Definitions

Chemical: Any element, chemical compound or mixture of elements and/or compounds.

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

Employee: A worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies.

Employer: A person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution.

Exposure or Exposed: When an employee comes into contact with a chemical that poses a physical or health hazard. This includes any route of entry (e.g. inhalation, ingestion, skin contact or absorption).

Hazardous Chemical: Any chemical that poses a physical or health hazard.

Hazard Warning: Any words, pictures, symbols, or combination appearing on a label or other appropriate form of warning which convey the specific physical and health hazard(s), including target organ effects of the chemical(s) in the container(s). (See the definitions for "physical hazard" and "health hazard" to determine the hazards which must be covered.)

Health Hazard: A chemical that may cause acute or chronic health effects in exposed employees. The term "health hazard" includes chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes.

Identity: Any chemical or common name that is indicated on the safety data sheet (SDS) for the chemical. The identity used enables cross-references to be made among the required list of hazardous chemicals, the label and the SDS.

Immediate Use: 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.

Label: Any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals.

Physical Hazard: A chemical that poses a physical risk to an employee, and is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

Safety Data Sheet (SDS): A written or printed sheet prepared in accordance with HCS requirements that communicate the hazards of hazardous chemical products.

Use: To package, handle, react, emit, extract, generate as a byproduct, or transfer.

Work Area: A room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

Workplace: An establishment, job site, or project, at one geographical location containing one or more work areas.

Appendix II: Label and SDS Pictograms and Hazards³

| Pictogram Symbol | Hazards |
|---------------------------------|---|
| Pictogram Symbol | Hazarus |
| Exclamation Mark Health Hazard | Irritant (skin and eye) Skin sensitizer Acute toxicity (harmful) Narcotic effects Respiratory tract irritant Hazardous to ozone layer (Non-mandatory) Carcinogen Mutagenicity Reproductive toxicity Respiratory sensitizer Target organ toxicity Aspiration toxicity |
| | Acute toxicity (fatal or toxic) |
| Skull and Crossbones | |
| Corrosion | Skin corrosion/burns Eye damage Corrosive to metals |
| Environment (Non-mandatory) | Aquatic toxicity |
| Exploding Bomb | ExplosivesSelf-reactiveOrganic peroxides |
| Flame | Flammables Pyrophorics Self-heating Emits flammable gas Self-reactive Organic peroxides |

³ OSHA "Brief Hazard Communication Standard: Labels and Pictograms." Web. [July 2014] https://www.osha.gov/Publications/OSHA3636.pdf>

| Pictogram Symbol | Hazards |
|-------------------|-------------------------------|
| | Oxidizers |
| Flame Over Circle | |
| | Gasses under pressure |
| Gas Cylinder | |

Appendix III: Standard Sections of a SDS⁴

NOTE: Sections 1-11 and 16 are mandatory and in the case that no relevant information is found for any given subheading within a section, the SDS will indicate that no applicable information is available. Sections 12-15 may be included in the SDS, but are not mandatory as they are regulated by other agencies.

| Section | Heading | Subheading |
|---------|--------------------------|--|
| Section | ricauling | Jubileaulig |
| 1. | Identification | (a) Product identifier used on the label. |
| | | (b) Other means of identification. |
| | | (c) Recommended use of the chemical and restrictions on use. |
| | | (d) Name, address, and telephone number of the chemical manufacturer, |
| | | importer, or other responsible party. |
| | | (e) Emergency phone number. |
| 2. | Hazard(s) Identification | (a) Classification of the chemical in accordance with paragraph (d) of §1910.1200. |
| | Tuentine date. | (b) Signal word, hazard statement(s), symbol(s) and precautionary statement(s) in accordance with paragraph (f) of §1910.1200. (Hazard symbols may be provided as graphical reproductions in black and white or the name of the symbol, e.g., flame, skull and crossbones). |
| | | (c) Describe any hazards not otherwise classified that have been identified during the classification process. |
| | | (d) Where an ingredient with unknown acute toxicity is used in a mixture at a concentration of 1% or greater and the mixture is not classified based on testing of the mixture as a whole, include a statement that X% of the mixture consists of ingredient(s) of unknown acute toxicity. |
| 3. | Composition/ | Except as provided for in paragraph (i) of §1910.1200 on trade secrets: |
| | Information on | For Substances: |
| | Ingredients | (a) Chemical name. |
| | | (b) Common name and synonyms. |
| | | (c) CAS number and other unique identifiers. |
| | | (d) Impurities and stabilizing additives which are themselves classified and which contribute to the classification of the substance. |
| | | For Mixtures: |
| | | In addition to the information required for substances: |
| | | (a) The chemical name and concentration (exact percentage) or concentration ranges of all ingredients which are classified as health hazards in accordance with paragraph (d) of §1910.1200 and (1) are present above their cut-off/concentration limits; or (2) present a health risk below the cut-off/concentration limits. |
| | | (b) The concentration (exact percentage) shall be specified unless a trade secret claim is made in accordance with paragraph (i) of §1910.1200, when there is batch-to-batch variability in the production of a mixture, or for a group of |

⁴ OSHA, "Appendix D to 1910.1200." Web. [July 2014] https://www.osha.gov/dsg/hazcom/hazcom-appendix-d.html

| Section | Heading | Subheading | |
|---------|--|--|--|
| | | substantially similar mixtures (See A.0.5.1.2) with similar chemical composition. In these cases, concentration ranges may be used. For All Chemicals Where a Trade Secret is Claimed: Where a trade secret is claimed in accordance with paragraph (i) of §1910.1200, a statement that the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret is required. | |
| 4. | First-aid Measures | (a) Description of necessary measures, subdivided according to the different routes of exposure, including inhalation, skin and eye contact, and ingestion. (b) Most important symptoms/effects, acute and delayed. (c) Indication of immediate medical attention and special treatment needed, if necessary. | |
| 5. | Fire-fighting Measures | (a) Suitable (and unsuitable) extinguishing media. (b) Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products). (c) Special protective equipment and precautions for fire-fighters. | |
| 6. | Accidental Release Measures | (a) Personal precautions, protective equipment, and emergency procedures.(b) Methods and materials for containment and cleaning up. | |
| 7. | Handling and Storage | (a) Precautions for safe handling.(b) Conditions for safe storage, including any incompatibilities. | |
| 8. | Exposure Controls/Perso nal Protection | (a) OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available. (b) Appropriate engineering controls. (c) Individual protection measures, such as personal protective equipment. | |
| 9. | Physical and Chemical Properties | (a) Appearance (physical state, color, etc.). (b) Odor. (c) Odor threshold. (d) pH. (e) Melting point/freezing point. (f) Initial boiling point and boiling range. (g) Flash point. (h) Evaporation rate. (i) Flammability (solid, gas). (j) Upper/lower flammability or explosive limits. (k) Vapor pressure. (l) Vapor density. (m) Relative density. (n) Solubility. (o) Partition coefficient: n-octanol/water. (p) Auto-ignition temperature. (q) Decomposition temperature. (r) Viscosity. | |

| Section | Heading | Subheading |
|---------|--|---|
| 10. | Stability and Reactivity | (a) Reactivity. (b) Chemical stability. (c) Possibility of hazardous reactions. (d) Conditions to avoid (e.g., static discharge, shock, or vibration). (e) Incompatible materials. (f) Hazardous decomposition products. |
| 11. | Toxicological Information | Description of the various toxicological (health) effects and the available data used to identify those effects, including: (a) Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact). (b) Symptoms related to the physical, chemical and toxicological characteristics. (c) Delayed and immediate effects and also chronic effects from short- and long-term exposure. (d) Numerical measures of toxicity (such as acute toxicity estimates). (e) Whether the hazardous chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA. |
| 12. | Ecological Information (Non- mandatory) | (a) Ecotoxicity (aquatic and terrestrial, where available). (b) Persistence and degradability. (c) Bioaccumulative potential. (d) Mobility in soil. (e) Other adverse effects (such as hazardous to the ozone layer). |
| 13. | Disposal Considerations (Non- mandatory) | Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging. |
| 14. | Transport Information (Non- mandatory) | (a) United Nations (UN) number. (b) UN proper shipping name. (c) Transport hazard class(es). (d) Packing group, if applicable. (e) Environmental hazards [e.g., Marine pollutant (Yes/No)]. (f) Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code). (g) Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises. |
| 15. | Regulatory Information (Non- mandatory) | Safety, health and environmental regulations specific for the product in question. |
| 16. | Other Information, Including Date of Preparation or Revision | The date of preparation of the SDS or the last change to it. |

Appendix IV: Training Recordkeeping Form

Hazard Communication Training Recordkeeping Form

Hazard Communication (HAZCOM) training must be provided to employees at initial assignment and whenever a new chemical hazard not previously covered by training, is introduced into the work area. Use the table below to address all required training topics.

| Topics and Content | Check when Complete |
|--|------------------------|
| Purpose and application of the OSHA Hazard Communication (HAZCOM) Standard (29 CFR 1910.1200). | |
| Discuss the workplace HAZCOM program including: | |
| Location and availability of the written plan as well as the chemical inventory and safety data sheets (SDSs). | |
| How the park/unit will inform employees of non-routine task hazards (e.g., tasks that take place every once in a while) and hazards of chemicals in unlabeled pipes. | |
| Details of the workplace labeling system. | |
| How to read and understand a hazardous chemical label received on a shipped container and the workplace labeling system. | |
| The operations of the work area in which hazardous chemicals are present and the specific (e.g., physical, health, simple asphyxiation) hazards of the chemicals. | |
| Methods and ways to detect the presence or release of a hazardous chemical. | |
| Measures employees can take to protect themselves from the hazards: | |
| Proper procedures for chemical use, storage, disposal. | |
| Emergency procedures to take in case of chemical release, spill, fire etc. | |
| Personal protective equipment (PPE) to use such as gloves. | |
| How to read and understand a SDS including the order of information and how employees can obtain and use the appropriate hazard information. | |

Employee: I have received Hazard Communication training and understand the topics listed above.

| Employee Name (Please Print) | |
|-----------------------------------|--|
| Employee Signature and Date | |
| Supervisor/Trainer (Please Print) | |

Appendix V: Hazardous Chemical Inventory

A list of hazardous chemicals in the workplace is a required part of the written hazard communication program. The list also serves as an inventory of products for which an SDS must be maintained.

A *Hazardous Chemical* is any chemical that presents a physical hazard or a health hazard. The hazard communication standard covers chemicals in all physical forms — liquids, solids, gases, vapors, fumes and mists — which are known to be present in the workplace in such a manner that employees may be exposed to under normal conditions of use or in a foreseeable emergency. Refer to the Definitions in this chapter for additional specifics.

The inventory must be kept updated; therefore it is recommended updates are made at least quarterly. The inventory must include a product identifier, generally speaking, the name or number used to identify a hazardous chemical on the label or in the SDS. All other elements of a hazardous chemical inventory, including but not limited to the location of the chemical, the quantity stored, etc. are optional elements to include.

Hazardous chemical inventories may be maintained electronically, such as in a database or on a spreadsheet as long as the information is readily available. If the information is not readily available, you must provide a hard copy of the information.

To identify chemicals and potential chemical exposure:

- Look around. Identify chemicals stored in containers, including pipes, and also think about
 chemicals generated in work operations. For example, welding rods, paints, pesticides, and
 petroleum products are all sources of chemical exposure. Read labels to determine if there are hazard
 warnings. Refer to the Definition section of this chapter for "hazardous chemical" for examples of
 products that are excluded from the scope of the HAZCOM program, and therefore excluded from
 the chemical inventory.
- 2. Make a list of all chemicals in the workplace that are potentially hazardous. It can be useful to emergency responders if the list identifies the approximate quantity and location(s) of the hazardous chemicals within the workplace. The table on the following page may be used as a template, or a park/office may choose to develop its own table.

Hazardous Chemical Inventory

| Park/Office Name: | |
|-------------------|--|
| Date: | |

| SDS# | LOCATION /SHOP | PRODUCT NAME/IDENTITY | PRODUCT DESCRIPTION | MANUFACTURER | MANUFACTURER'S ADDRESS | QTY/UNIT |
|------|-------------------|--------------------------|------------------------|--------------|------------------------|----------|
| | | | | | | |
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