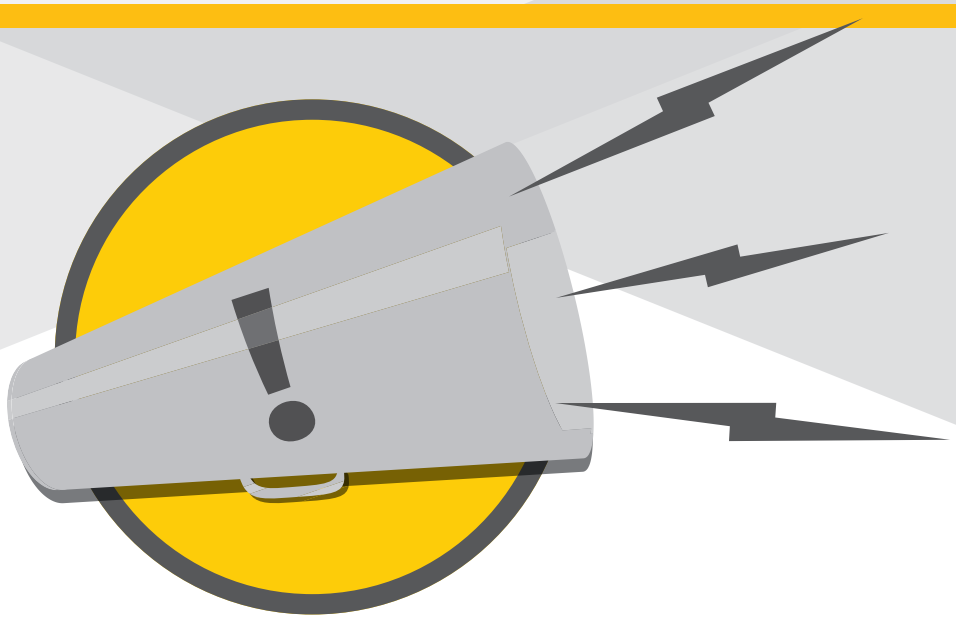
# USC HAZARD COMMUNICATION PROGRAM



USC University of Southern California

OFFICE OF ENVIRONMENTAL HEALTH & SAFETY

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# Table of Contents

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# 1.0 Purpose and Scope

The USC Hazard Communication Program complies with the California Code of Regulations, Title 8, Section 5194 which requires employers in California that use hazardous materials to establish, implement and maintain a Hazard Communication Program. The program is designed to ensure that employees are aware of hazardous materials within the workplace and provide guidance for working safely with these materials.

The Hazard Communication Program applies to all USC faculty, staff, student workers and volunteers while engaged in work related activities at the university.

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# 2.0 Regulations

**Applicable Regulation**


California Code of Regulations, Title 8 Section 5194

**Related Standards and Guidelines**

a. The Hazardous Substances List (CCR, Title 8, §339)
b. Toxic and Hazardous Substances List (29 CFR, Part 1910, Subpart Z)
c. California Air Contaminates List (CCR, Title 7, §5155)
d. Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment, American Conference of Governmental Industrial Hygienist
e. National Toxicology Program, Annual Report on Carcinogens
f. International Agency for Research on Cancer Monographs
g. Safety Data Sheets (SDSs) as reproductive toxicants or cancer-producing substances
h. Chemicals Known to the State of California to Cause Cancer or Reproductive Toxicity (Prop 65 – CCR, Title 22, §12000)
i. Any other substances which present a personal hazard(s) as determined by scientific evidence.

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# 3.0 Roles and Responsibilities

## Manager and Supervisor Responsibilities

Managers and supervisors are responsible for implementing this program and ensuring compliance within their department. This includes:

- Identifying hazardous materials in the work area;
- Providing EH&S with a current inventory of all hazardous materials;
- Ensuring that all hazardous materials are labeled;
- Ensuring that all hazardous material labels are compliant;
- Ensuring that employees have access to current SDSs (hard copies or electronic files) for all hazardous materials present in their work area, during all shifts;
- Providing training to employees on the hazards that they may be exposed to, including physical hazards, health hazards, safe handling procedures, and emergency procedures for hazardous materials;
- Informing affected personnel before introducing a hazardous material into a workplace; and
- Ensuring that all hazardous material containers are properly labeled

## Employee Responsibilities

All employees are responsible for:

- Adhering to the information found on both the SDS and container label when working with hazardous materials;
- Participating and completing all assigned safety and hazard related trainings before working with hazardous materials;
- Reading and adhering to the information on hazardous material labels, SDSs, and departmental procedures;
- Informing their supervisor of any questions they have related to the information on hazardous material labels, SDSs, departmental procedures and other identified safety concerns;
- Wearing personal protective equipment and clothing, as appropriate

## Office of Environmental Health & Safety (EH&S)

EH&S is responsible for:

- Maintaining the written Hazard Communication Program;
- Maintaining a university-wide chemical inventory;
- Assisting supervisors in identifying hazardous materials and potentially hazardous operations in the workplace;
- Recommending appropriate engineering controls, administrative controls and PPE.
- Assisting departments with employee training resources and documentation; and
- Maintaining a master file of SDSs

# 4.0 Hazard Identification, Reduction and Controls

## A. Hazard Identification

Supervisors shall assess the workplace to determine if hazardous materials are present, or are likely to be present, which necessitate the use of PPE Having fewer hazardous materials in a work area lowers the risk for exposure.

## B. Hazard Elimination/Substitution/Reduction

Supervisors shall determine if the use of a hazardous material is necessary, and consider using a less hazardous substitute, whenever possible. An example might be to substitute an oil based paint for one that is has low VOCs and is more environmentally friendly.

## C. Engineering Controls

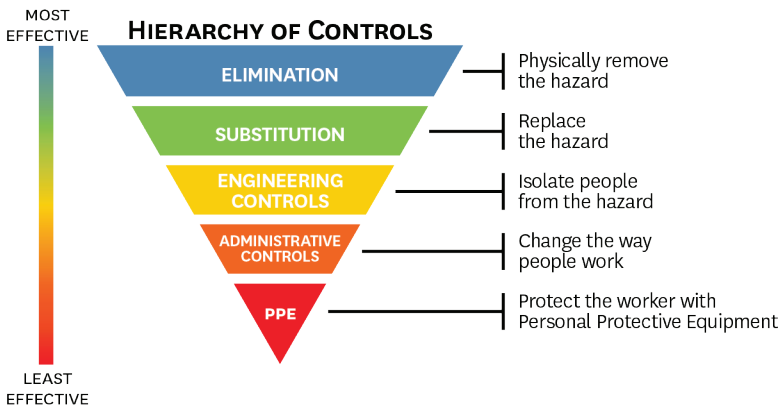
When hazards cannot be completely eliminated or reduced below acceptable exposure limits, engineering controls shall be considered and implemented whenever possible to eliminate or reduce the risk of exposure to employees. An example of an engineering control would be the use of laboratory fume hood to draw airborne contaminants away from a worker's breathing zone.

## D. Administrative Controls

When hazards cannot be completely eliminated or reduced below acceptable levels after considering elimination, substitution and engineering controls, administrative controls shall be considered and implemented, whenever possible. An example of an administrative control would be task rotation for the purpose of reducing one's exposure to hazardous materials.

## E. Personal Protective Equipment

Personal protective equipment is the last line of defense against workplace hazards and should only be considered after it has been determined that elimination/substitution /reduction, engineering and administrative controls are not feasible. An example of PPE would be the use of air purifying respirator to filter out airborne contaminates.



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# 5.0 Globally Harmonized System

## A. Safety Data Sheets

Safety Data Sheets (SDS) contain hazard and precautionary information for hazardous materials as required by the Hazard Communication Standard and should be available for each hazardous material in a workplace. The most current SDS supplied by the chemical manufacturer or distributor should be kept on file, and made accessible to all employees, their representatives, and contractors for viewing or copying during each work shift. Paper or electronic copies of SDSs shall be maintained either in individual workspaces or centrally within the department.

SDSs are broken down into 4 basic parts:

- Sections 1-3 address the hazardous material's basic details
- Sections 4-8 address recommended actions related to the hazardous material
- Sections 9-11 address the hazardous material's technical details
- Sections 12-16 provide additional optional information for specific needs

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|---|---|---|
| Section 1 | **Identification** | *Includes identifier, manufacturer, emergency phone #, use and restrictions.* |
| Section 2 | **Hazard(s) Identification** | *Includes all hazards regarding the chemical and required label elements.* |
| Section 3 | **Compositions** | *Includes information on chemical ingredients and trade secret claims.* |
| Section 4 | **First-Aid Measures** | *Includes acute or delayed symptoms or effects and required treatment.* |
| Section 5 | **Fire-Fighting Measures** | *Lists suitable extinguishing methods.* |
| Section 6 | **Accidental Release Measures** | *Lists emergency procedures, protective equipment and cleanup methods.* |
| Section 7 | **Handling and Storage** | *Lists precautions for safe handling/storage and incompatibles.* |
| Section 8 | **Exposure Controls / PPE** | *Lists PELs, TLVs, engineering controls and PPE.* |
| Section 9 | **Physical and Chemical Properties** | *Lists the chemical's characteristics.* |
| Section 10 | **Stability and Reactivity** | *Lists the chemical's stability and possibility of hazardous reactions.* |
| Section 11 | **Toxicological Information** | *Routes of exposure, symptoms, acute/chronic effects and toxicity info.* |
| Section 12 | **Ecological Information** | * |
| Section 13 | **Disposal Considerations** | * |
| Section 14 | **Transportation Information** | * |
| Section 15 | **Regulatory Information** | * |
| Section 16 | **Other Information** | *Includes date of preparation or last revision.* |

* *Information requirements in this section are optional.*

EH&S offers an online resource for USC students, staff, and faculty to download SDSs for chemicals used or stored at SDSs (https://srm.usc.edu/rmcsapps/msds/redirecttomsds.cfm).

## B. Labels

Original and secondary containers of hazardous materials must be properly labeled with GHS compliant labels. Labels shall be legible, in English and prominently displayed on the container. Each supervisor will ensure that all containers have either the original manufacturer's label or a supplemental label that includes the following:

- Product identifier (trade, product, or chemical name)
- Signal Word – Reflects the Severity of the hazard
    - Danger – Used for Severe Hazards
    - Warning – Used for Less Severe Hazards
- Hazard Statement(s) – Describe the nature of the chemical's hazard(s) including, where appropriate, degree of hazard
    - Causes serious eye damage
    - Toxic if swallowed
    - Toxic the aquatic life with long lasting effects
    - May cause allergy or asthma symptoms or breathing difficulty if inhaled
    - Fatal if inhaled
    - May cause drowsiness or dizziness
- Precautionary Statement(s) – Describes the various measures that should be taken to protect health and safety
    - Keep away from heat/sparks/open flames/hot surfaces
    - Do not spray on an open flame or other ignition source
    - Avoid contact during pregnancy/while nursing
    - Wash hands thoroughly after handling
    - In case of inadequate ventilation, wear respiratory protection
    - Keep cool. Protect from sunlight
- Name, address, and telephone number of the chemical manufacturer or other responsible party

## C. Pictograms

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# 6.0 Training

Training on hazardous materials in the work area is required upon initial assignment or reassignment, and whenever a new hazardous material is introduced into the work area. This training requirement applies to all faculty, staff, student workers temporary staff and volunteers. Retraining or supplemental training shall be provided after an injury, serious incident or near miss. Contact EH&S for guidance when developing or providing training for employees in your work area.

Hazardous materials training shall include instruction on the following:

- Departmental operations where hazardous materials are present;
- Location and availability of the written hazard communication program, including the list(s) of hazardous materials and SDSs;
- Proper handling and storage of the material;
- Exposure recognition and control;
- SDS format and content;
- Container label format and content;
- Information on any in-house labeling system;
- Methods to detect the presence of hazardous materials in the workplace (alarms, odors, etc.);
- Emergency procedures, and personal protective equipment to be used.

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# 7.0 Recordkeeping

## Training Records

Training attendance records shall be maintained by the department for the duration of the worker's employment.

## Chemical Inventory

Departments shall maintain and up-to-date chemical inventory for as long as the material is present.

## Job Safety Analysis

Departments shall retain Job Safety Analysis (JSA) for the duration that the process is active.

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# 8.0 Emergency Procedures

The range and quantity of hazardous materials used at the university requires planning to respond safely in case there is a chemical spill or release. General guidelines when addressing concerns related to accidental spills of hazardous materials and exposure control can be found within the university's Chemical Hygiene Plan (http://tiny.cc/chem-hygiene-plan) or by contacting EHS.

If the spill is too large to contain and clean up, immediately contact Department of Public Safety (DPS):

- UPC (213)-740-4321
- HSC (323) 442-1000

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# Appendix Hazard Communication Related Documents

## Related Documents

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| Chemical Hygiene Plan | http://tiny.cc/chem-hygiene-plan |
| Globally Harmonized System/ Pictograms Fact Sheet | http://tiny.cc/usc-hazcom-ghs |
| Hazardous Materials Spill Guide Sheet | http://tiny.cc/usc-ehs-chmSplkit-gs |
| PPE Minimum Standard | http://tiny.cc/usc-ppe-standard |
| PPE - Footwear | http://tiny.cc/usc-ehs-fs-ppeFoot |