



CALIFORNIA STATE
UNIVERSITY
E A S T B A Y

Hazard Communication Program Version 2

This Hazard Communication Program is hereby approved:

Signature: Donna Placzek, Director of EHS **Date:** April 30 2015

Table of Contents

1.0	Policy	3
2.0	Purpose	3
3.0	Scope.....	3
4.0	Responsibilities	3
6.0	Definitions.....	6
7.0	Hazard Assessment	10
8.0	Labels & Other Forms of Warning	10
9.0	Safety Data Sheets (SDS).....	11
10.0	Employee Information and Training	11
11.0	Trade Secrets	12
12.0	Document History	12
Appendix A: Global Harmonization System Pictograms.....		13
Appendix B: Other Pictograms used at CSUEB		14
Appendix C: Department of Transportation Labels.....		15

1.0 Policy

It is the policy of CSU East Bay to maintain, insofar as is reasonably possible, an environment that will not adversely affect the health, safety and well being of students, employees, visitors and the surrounding community. To this end, the University has established a Hazard Communication Program (HCP) that includes protections and safeguards for University employees who may be exposed to potentially hazardous substances. Employees will be informed about the hazards of those substances and will be trained in the precautions to take to prevent exposure and what to do if they are accidentally exposed. No employee will engage in or be required to perform any task that is determined to be unsafe.

2.0 Purpose

The purpose is to establish a program that reduces the risk of occupational exposure to hazardous substances and complies with the requirements specified in California Code of Regulations Title 8 §5194 [Hazard Communication](#):

1. Implementing and maintaining a written hazard communication program;
2. Maintaining a chemical inventory and Safety Data Sheets (SDS);
3. Identifying labels and warnings used by the university;
4. Providing for communicate methods used to inform employees of the hazards of routine and non-routine tasks;
5. Providing employees with effective information and training;
6. In multi-employer workplaces, the written hazard communication program shall include the methods employers will use to inform any employers sharing the same work area of the hazardous chemicals to which their employees may be exposed while performing their work, and any suggestions for appropriate protective measures.

3.0 Scope

The Hazard Communication Program applies to all University employees who have potential for occupational exposures to hazardous substances during their normal job duties.

This program does not apply to hazardous waste; tobacco or tobacco products; wood or wood products; foods, drugs, or cosmetics intended for personal consumption by employees while in the workplace; retail food sale establishments; and consumer products packaged for distribution.

4.0 Responsibilities

1. Department/College Supervisors:
Supervisors at all levels carry the primary responsibility for ensuring the Hazard Communication Program is implemented properly within their department. Each supervisor has the direct responsibility for ensuring the following:
 - Ensure that all requirements of the Hazard Communication Program have been met before employees are exposed to hazardous substances under normal conditions of use or in a foreseeable emergency.

- Develop procedures to ensure effective compliance with requirements of this standard.
- Provide the resources necessary to ensure that Personal Protective Equipment (PPE) is available for affected employees.
- Develop and maintain an inventory of hazardous substances present in all work areas within the department.
- If an SDS is not currently present in the department, obtain the SDS using the website: [MSDS Online](#), contacting the manufacturer, or EHS.
- Forward a hard or electronic copy of the MSDS to EH&S and keep original in departmental files.
- Inform employees of the hazards and controls for non-routine tasks.
- Inform outside contractor's employees who work in areas under department jurisdiction of the hazardous substances to which those employees may be exposed.
- Ensure that all exposure incidents are documented on the [Employee Injury Accident Report](#) and [Supervisors Accident Investigation Report](#), and reported to Environmental Health and Safety.
- Contact EHS for assistance when necessary.

2. Employees covered by the Hazard Communication Program:

- Understand the applicable components of the Hazard Communication Program.
- Report any exposure, accident, injury or illness to their supervisor or EH&S.
- Be certain that you understand the hazards of the chemicals and equipment with which you work. If you are not certain of the potential hazards, consult your supervisor, SDS and/or EHS. Any questions should be referred to Environmental Health and Safety at extension 4139.
- If a chemical spill occurs, immediately contact Environmental Health and Safety at extension x4139 or University Police Department at x3791. Do not attempt to clean up a hazardous materials spill unless you have been appropriately trained.
- Use personal protective equipment, including eye protection, gloves, coveralls, respirators, and other protective equipment, as the job requires.
- Post warning signs when hazards, such as radiation, lasers, flammable materials, biological hazards, mechanical hazards, or when other special hazards exist.

3. Environmental Health and Safety Office:

EH&S will function as a technical resource to departments and their supervisors and will advise them as to the requirements of the CSUEB Hazard Communication Program. Supervisors are encouraged to utilize EH&S services to assist them in carrying out their responsibilities. EH&S shall provide the following services to UCSB departments as requested:

- Develop and maintain the written "Hazard Communication Program".
- Advise and assist departments in complying with the program requirements including labeling, Safety Data Sheets (SDS), employee information and training.
- Provide consultation, monitoring, and training support services related to chemical safety.

- Arrange for employee exposure monitoring as required.
- Provide regular, formal audits for compliance with the HCP.
- Monitor chemical procurement, use and disposal.
- Maintain master inventory of hazardous substances on campus.
- Maintain all environmental and employee exposure monitoring records.
- Provide employees with exposure records.
- Maintain training records related to the Hazard Communication Program.

4. Non-University Employees (Contractors)

This section outlines the University Representative's and Contractor's responsibilities when campus personnel or a contractor's employees may be exposed to hazardous substances during a project.

a) University Responsibilities:

In order to ensure the health and safety of outside vendors it is the responsibility of the Project Manager or other university representative to provide contractors with the following:

- A list of campus hazardous substances they may encounter or be exposed to while performing their work;
- SDSs for campus hazardous substances that contractors may encounter;
- Information regarding the precautions and appropriate protective measures workers should take to reduce their risk of exposure to campus hazardous substances;
- Details about the labeling system used for hazardous substances as required.

b) Contractor Responsibilities

To protect the University community from potential hazards created by outside vendors, each contractor must provide the Project Manager or other university representative with the following information:

- A list of hazardous substances which will be used on the job;
- SDSs for products used by the contractor within University facilities;
- Precautions and appropriate measures employees should take to reduce the possibility of exposure to these substances.

5. Purchasing:

- Purchasing will receive requisitions for hazardous materials from each department
- If an SDS is required for the product the purchasing agent will ensure the requirement is communicated to the vendor.
- When the SDS is received, Purchasing will forward original MSDS to the creator of the requisition.
- If the SDS was not forwarded to Purchasing, then a formal written request will be sent to the vendor by Purchasing.

6.0 Definitions

ACUTE: Acute effects usually occur rapidly as a result of short-term exposures, and are of short duration.

CARCINOGEN: A substance is considered to be a carcinogen if:

1. It has been evaluated by the International Agency for Research on Cancer (IARC) and found to be a carcinogen or potential carcinogen; or
2. It is listed as a carcinogen or potential carcinogen in the Sixth Annual Report on Carcinogens published by the National Toxicology Program (NTP) or,
3. It is regulated by OSHA as a carcinogen.

CAS NUMBER: The unique identification number assigned by the Chemical Abstracts Service to specific chemical substances.

CHRONIC: Effects generally occur as a result of long-term exposure, and are of long duration.

COMBUSTIBLE LIQUID: Any liquid having a flashpoint greater than 199.4°F (93°C) (formerly designated Class IIIB Combustible liquids).

CORROSIVE: A substance that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact. Usually an acid or base.

EXPOSURE OR EXPOSED: Any situation arising from work operation where an employee may ingest, inhale, absorb through the skin or eyes, or otherwise come into contact with a hazardous substance.

FLAMMABLE: A substance that falls into one of the following categories:

FLAMMABLE AEROSOL: An aerosol that, when tested, yields a flame or a flashback.

FLAMMABLE GAS: A gas that forms a flammable mixture with air.

FLAMMABLE LIQUID: Any liquid having a flashpoint below 100 degrees F (37.8 degrees C) or higher.

FLAMMABLE SOLID: Any solid liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard.

FLASHPOINT: The minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite when tested using approved methods.

HAZARD CLASS: The nature of the physical or health hazards, e.g., flammable solid, carcinogen, oral acute toxicity.

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.

HAZARDOUS SUBSTANCE: Any substance, which is a physical hazard or a health hazard or is included in the List of Hazardous Substances prepared by the Director pursuant to Labor Code section 6382 or the following:

1. The Hazardous Substances List (T8 CCR, Section 339), commonly known as "The Director's List of Hazardous Substances"
2. 29, Code of Federal Regulations (CFR), Part 1910, Subpart Z, "Toxic and Hazardous Substances," Occupational Safety and Health Administration (federal OSHA); and T8 CCR, Section 5155, "Air Contaminants"
3. Threshold Limit Values for Chemical Substances in the Work Environment, American Conference of Governmental Industrial Hygienists (ACGIH), 1991–1992
4. Sixth Annual Report on Carcinogens, National Toxicology Program (NTP), 1991
5. Monographs, International Agency for Research on Cancer (IARC), Vols. 1–53 and Supplements 1–8. World Health Organization
6. Material Safety Data Sheets as reproductive toxicants or cancer producing substances
7. T22 CCR, Section 12000, under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65), "Chemicals Known to the State to Cause Cancer or Reproductive Toxicity," a list published at least once a year by Cal/EPA's Office of Environmental Health Hazard Assessment
8. Any other substances that present a physical or health hazard as determined by scientific evidence

HEALTH HAZARD: A substance for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes substances which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes.

HIGHLY TOXIC: A substance falling within any of the following categories:

1. A substance that has a median lethal dose (LD50) of 50 milligrams or less per kilogram of body weight.
2. A substance that has a median lethal dose (LD50) of 200 milligrams or less per kilogram of body weight.
3. A substance has a median lethal concentration (LC50) in air of 200 parts per million by volume or less of gas or vapor, or 2 milligrams per liter or less of mist, fume, or dust, when administered by continuous inhalation for one hour.

IMMEDIATE USE: The hazardous substance 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.

IRRITANT: A substance, which is not corrosive, but which causes a reversible inflammatory effect on living tissue by chemical action at the site of contact.

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

MATERIAL SAFETY DATA SHEETS (MSDS): Written or printed material concerning a hazardous substance, which is prepared in accordance with section 5194(g) and the Global Harmonization System. MSDSs are now called Safety Data Sheets or SDSs.

ORGANIC PEROXIDE: An organic compound that contains the bivalent-O-O- structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

OXIDIZER: A substance other than a blasting agent or explosive as defined in section 5237(a), that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

PRECAUTIONARY STATEMENT: 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.

PHYSICAL HAZARD: A substance for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

PYROPHORIC: A substance that will ignite spontaneously in air at a temperature of 130 degrees F (54.4 degrees C) or below.

SENSITIZER: A substance that causes a substantial proportion of exposed people or animals to develop an allergic reaction in normal tissue after repeated exposure to the substance.

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 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: 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.

SAFETY DATA SHEETS (MSDS): Written or printed material concerning a hazardous substance, which is prepared in accordance with section 5194(g) and the Global Harmonization System. Safety Data Sheets or SDSs were previously called MSDs.

TARGET ORGAN EFFECTS: The following table categorizes target organ effects which may occur:

AGENT:	DEFINITION:	SIGNS & SYMPTOM:	SUBSTANCE:
Hepatotoxins	substances which produce liver damage	jaundice, liver enlargement	Carbon tetrachloride; nitrosamines.
Nephrotoxins	substances which produce kidney damage	Edema, proteinuria	Halogenated hydrocarbons; uranium
Neurotoxins	substances which produce their primary toxic effects on the nervous system	Narcosis; behavioral changes; decrease in motor functions	Mercury; carbon disulfide
Blood or Hematopoietic System	decrease hemoglobin function; deprive the body tissues of oxygen	Cyanosis; loss of consciousness	Carbon monoxide; cyanides
Lung Hazards	substances which irritate or damage the pulmonary (lung) tissue	Cough; tightness in chest; shortness of breath	Silica; asbestos
Cutaneous (skin) Hazards	substances which affect the skin	Defatting of the skin; rashes; irritation, sensitization	Ketones; chlorinated compounds
Reproductive Toxins	substances which affect the reproductive capabilities of men and women including chromosomal damage (mutations) and effects on fetuses (teratogens)	Birth defects; sterility	Lead; DBCP; ethanol
Eye Hazards	substances which affect the eye or visual capacity	Conjunctivitis; corneal damage	Organic solvents; Corrosives (acids and bases)

TOXIC: A substance falling within any of the following categories:

1. A substance that has a median lethal dose (LD50) of more than 50 milligrams per kilogram but not more than 500 milligrams per kilogram.
2. A substance that has a median lethal dose (LD50) of more than 200 milligrams per kilogram but not more than 1,000 milligrams per kilogram.
3. A substance that has a median lethal concentration (LC50) in air of more than 200 parts per million but not more than 2,000 parts per million by volume of gas or vapor, or more than 2 milligrams per liter but not more than 20 milligrams per liter of mist, fume, or dust, when administered by continuous inhalation for one hour.

TRADE SECRET: Any confidential formula, pattern, process, device, information, or compilation of information which gives its user an opportunity to obtain a business advantage over competitors who do not know or use it. A trade secret shall not include chemical identity information, which is readily discoverable through qualitative analysis.

UNSTABLE (Reactive): A substance which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.

7.0 Hazard Assessment

The quality of a hazard communication program is largely dependent upon the adequacy and accuracy of the hazard assessment. A Hazard Assessment must be conducted for all job tasks using hazardous materials. The hazard analysis should include the entire process and identify both actual and potential hazards. The evaluation should focus on eliminating or reducing hazards through the use of product substitution, and engineering and administrative controls. If needed, EH&S will provide additional Hazard Assessment training and assistance when requested. Additional information is found at <http://www.osha.gov/Publications/osh3071.pdf>.

8.0 Labels & Other Forms of Warning

Each workplace container of hazardous substances in the workplace shall be labeled, tagged, or marked with the following information:

1. Identity of the hazardous substance(s) in the container; and
2. **Manufacturer's Labels** as appropriate shall not be removed or intentionally **defaced**.
3. Appropriate hazard warnings in pictures, symbols and/or words as per the Global Harmonization System (GHS).
4. **Signs, placards**, etc., may be used to label individual stationary process containers.
5. **Portable containers** are required to be labeled unless it is intended for immediate use and under the employee's control at all times.
6. **Labels** or other forms of warning shall be **legible, in English**, and prominently displayed on the container, or readily available in the work area throughout each work shift.
7. **New labels** do not need to be affixed if existing or manufacturer's labels already convey the required information.
8. **Facility piping** must be labeled with the contents and direction of flow.

9. See Appendices A through C for examples of Global Harmonization System labeling, Department of Transportation labeling and other labeling used at CSUEB.

9.0 Safety Data Sheets (SDS)

1. Employers shall have a material safety data sheet available for each hazardous substance in use.
2. Each material safety data sheet shall be in English and shall contain at least the following information:

Section 1, Identification;
Section 2, Hazard(s) identification;
Section 3, Composition/information on ingredients;
Section 4, First-aid measures;
Section 5, Fire-fighting measures;
Section 6, Accidental release measures;
Section 7, Handling and storage;
Section 8, Exposure controls/personal protection;
Section 9, Physical and chemical properties;
Section 10, Stability and reactivity;
Section 11, Toxicological information;
Section 12, Ecological information;
Section 13, Disposal considerations;
Section 14, Transport information;
Section 15, Regulatory information; and
Section 16, Other information, including date of preparation or last revision.

10.0 Employee Information and Training

Information and training on hazardous substances in the work area shall be provided at the time of their initial assignment, and whenever a new hazard is introduced into the work area. Information and training may relate to general classes of hazardous substances to the extent appropriate and related to reasonably foreseeable exposures of the job.

Information and training shall consist of at least the following topics:

1. Employees shall be informed of the requirements of this section.
2. Employees shall be informed of any operations in their work area where hazardous chemicals are present.
3. Employees shall be informed of the location and availability of the written hazard communication program, including the list(s) of hazardous chemicals and safety data sheets required by this section.
4. Employees shall be trained in the 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.).

5. Employees shall be trained in 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, and the measures they 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.
6. Employees shall be trained in 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 and the safety data sheet, and how employees can obtain and use the appropriate hazard information.
7. Employees shall be informed of their right:
 - a. To personally receive information regarding hazardous substances to which they may be exposed;
 - b. For their physician or collective bargaining agent to receive information regarding hazardous substances to which the employee may be exposed;
 - c. Against discharge or other discrimination due to the employee's exercise of rights afforded pursuant to the provisions of the Hazardous Substances Information and Training Act.
8. Whenever the employer receives a new or revised material safety data sheet, such information shall be provided to employees on a timely basis not to exceed 30 days after receipt.

11.0 Trade Secrets










1. Trade secret information must be released in certain circumstances. Information on the specific chemical identity of a trade secret substance may be requested in medical emergencies as well as in non-emergency situations.
2. In the case of a medical emergency, the chemical identity must be immediately disclosed to medical personnel.
3. In non-emergency situations, disclosure shall be made to health or safety professionals and to employees and their designated representatives upon a written request, which
 - a. Explains why the disclosure of the specific chemical identity is essential, and
 - b. Describes the procedures by which the disclosed information will be kept confidential.

12.0 Document History

Document Revision	Date	Prepared by:	Approved by:	Comment
New – Version 0	01 Nov 2010	EHS	D.Placzek	New program
Version 1	30 May 2012	EHS	D.Placzek	Added GHS information
Version 2	30 Apr, 2015	EHS	D.Placzek	Reorganized

Appendix A: Global Harmonization System Pictograms

HCS Pictograms and Hazards

<p>Health Hazard</p>  <ul style="list-style-type: none"> • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity 	<p>Flame</p>  <ul style="list-style-type: none"> • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides 	<p>Exclamation Mark</p>  <ul style="list-style-type: none"> • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritant • Hazardous to Ozone Layer (Non-Mandatory)
<p>Gas Cylinder</p>  <ul style="list-style-type: none"> • Gases Under Pressure 	<p>Corrosion</p>  <ul style="list-style-type: none"> • Skin Corrosion/ Burns • Eye Damage • Corrosive to Metals 	<p>Exploding Bomb</p>  <ul style="list-style-type: none"> • Explosives • Self-Reactives • Organic Peroxides
<p>Flame Over Circle</p>  <ul style="list-style-type: none"> • Oxidizers 	<p>Environment (Non-Mandatory)</p>  <ul style="list-style-type: none"> • Aquatic Toxicity 	<p>Skull and Crossbones</p>  <ul style="list-style-type: none"> • Acute Toxicity (fatal or toxic)

Appendix B: Other Pictograms used at CSUEB



Biohazardous



Radioactive



National Fire Protection Association Diamond (NFPA)

- Blue = Health Hazard, Ranges from 0 (Normal material) to 4 (Deadly)
- Red = Flammability, Ranges from 0 (Will not burn) TO 4 (Flashpoint 73°F)
- Yellow = Reactivity, Ranges from 0 (Stable) TO 4 (May detonate)
- White = Special hazard

Signal Words or Degrees of Hazards

- **DANGER** = Highest degree of hazard (*red text*)
- **WARNING** = Intermediate degree of hazard (*orange text*)
- **CAUTION** = Lowest degree of hazard (*yellow text*)

Appendix C: Department of Transportation Labels

