Hazard Communication Program
Version 1

This Hazard Communication Program is hereby approved:

Signature: Donna Placzek, Director of EHS       Date: May 30, 2012
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### Attachments:

- Hazard Communication Standard, Title 8, CCR Section 5194
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/Scope:

2.1 Purpose:

To establish a program that reduces the risk of occupational exposure to hazardous substances, which also complies with the requirements specified in California Code of Regulations Title 8 §5194 "Hazard Communication".

2.2 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.

3.0 Administering Agency:

State of California, Division of Occupational Safety and Health (Cal-OSHA)
4.0 References:

California Code of Regulations Title 8, Section 5194

5.0 Responsibilities:

5.1 Environmental Health and Safety Office:

1. Establish and update the written "Hazard Communication Program".
2. Advise and assist departments in complying with the program requirements including labeling, Material Safety Data Sheets (MSDS), employee information and training, and record keeping.
3. Provide consultation, monitoring, and training support services on matters related to chemical safety.
4. Arrange for employee exposure monitoring (as required).
5. Provide regular, formal audits for compliance with the HCP.
6. Monitor chemical procurement, use and disposal.
7. Maintain master inventory of hazardous substances on campus.
8. Maintain all environmental and employee exposure monitoring records.
9. Provide employees with exposure records.
10. Maintain training records related to the Hazard Communication Program.

5.2 Human Resource Services:

1. Maintain employee medical records.
2. Provide access to medical records.

5.3 Department/College:

1. 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.

2. Develop procedures to ensure effective compliance with requirements of this standard.

3. Provide the resources necessary to ensure that Personal Protective Equipment (PPE) is available for affected employees.

4. Develop and maintain an inventory of hazardous substances present in all work areas within the department.

5. If an MSDS is not currently present in the department, obtain the MSDS using the website: http://www.aba.csueastbay.edu/EHS/msds.htm.

6. Forward a hard or electronic copy of the MSDS to EH&S and keep original in departmental files.

7. Inform employees of the hazards of non-routine tasks.

8. Inform outside contractor's employees who work in areas under department jurisdiction of the hazardous substances to which those employees may be exposed.

9. 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.

5.4 Purchasing:

1. Purchasing will receive on-line requisitions for hazardous materials created by an "Authorized Individual".

2. If an MSDS is required for the product (as noted in a text field) the purchasing agent will ensure the requirement is communicated to the vendor.

3. When the MSDS is received, Purchasing will forward original MSDS to the creator of the requisition.

4. If the MSDS was not forwarded to Purchasing, then a formal written request will be sent to the vendor by Purchasing.

5.5 Employees covered by the Hazard Communication Program:

1. Understand the applicable components of the Hazard Communication Program.

2. Report any exposure, accident, injury or illness to their supervisor or EH&S.

3. 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, MSDS and/or EHS. Any questions should be referred to Environmental Health and Safety at extension 4139.

4. 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.

5. Use personal protective equipment, including eye protection, gloves, coveralls, respirators, and other protective equipment, as the job requires.

6. Post warning signs when hazards, such as radiation, lasers, flammable materials, biological hazards, mechanical hazards, or when other special hazards exist.

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.

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

• **CORROSIVE:**
A substance that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact.
• **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 WARNING:**

Any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the health hazards and physical hazards of the substance(s) in the container(s).

• **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.

• **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).

**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.
• **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.

• **"TARGET ORGAN EFFECTS":**

The following table categorizes target organ effects which may occur:

<table>
<thead>
<tr>
<th>AGENT:</th>
<th>DEFINITION:</th>
<th>SIGNS &amp; SYMPTOM:</th>
<th>SUBSTANCE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatotoxins:</td>
<td>(substances which produce liver damage.)</td>
<td>Jaundice; liver enlargement</td>
<td>Carbon tetrachloride;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>nitrosamines.</td>
</tr>
<tr>
<td>Nephrotoxins:</td>
<td>(substances which produce kidney damage.)</td>
<td>Edema; proteinuria</td>
<td>Halogenated hydrocarbons; uranium</td>
</tr>
<tr>
<td>Neurotoxins:</td>
<td>(substances which produce their primary toxic effects on the nervous system.)</td>
<td>Narcosis; behavioral changes; decrease in motor functions.</td>
<td>Mercury; carbon disulfide.</td>
</tr>
<tr>
<td>Agents which act on the Blood or Hematopoietic System:</td>
<td>(decrease hemoglobin function; deprive the body tissues of oxygen)</td>
<td>Cyanosis; loss of consciousness</td>
<td>Carbon monoxide; cyanides</td>
</tr>
<tr>
<td>Agents which damage the Lung:</td>
<td>(substances which irritate or damage the pulmonary tissue)</td>
<td>Cough; tightness in chest; shortness of breath</td>
<td>Silica; asbestos</td>
</tr>
<tr>
<td>Cutaneous Hazards:</td>
<td>(substances which affect the dermal)</td>
<td>Defatting of the skin;</td>
<td>Ketones; chlorinated</td>
</tr>
</tbody>
</table>
layer of the body) rashes; irritation compounds

Reproductive Toxins: (substances which affect the reproductive capabilities including chromosomal damage (mutations) and effects on fetuses (teratogenesis)

Birth defects; sterility Lead; DBCP

Eye Hazards: (substances which affect the eye or visual capacity)

Conjunctivitis; corneal damage Organic solvents; acids

• 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 Determination:

The quality of a hazard communication program is largely dependent upon the adequacy and accuracy of the hazard determination. The hazard determination requirement of this standard is performance-oriented.

The Chemical Manufacturer and/or Environmental Health and Safety uses the following criteria to make hazard determinations:

1. **Carcinogenicity:** As described in subsection 5194(d)(4) and Appendix A, a determination by the NTP, IARC, or OSHA that a substance is a carcinogen or potential carcinogen will be considered conclusive evidence.

2. **Human data:** Where available, epidemiological studies and case reports of adverse health effects shall be considered in the evaluation.

3. **Animal data:** Results of toxicological testing in animal populations shall be used to predict the health effects that may be experienced by exposed workers.

4. **Adequacy and reporting of data:** The results of any studies which are designed and conducted according to established scientific principals, and which report statistically significant conclusions regarding the health effects of a substance, shall be a sufficient basis for a hazard determination and reported on any material safety data sheet.

8.0 Labels & Other Forms of Warning:

Each container of hazardous substances in the workplace shall be labeled, tagged, or marked with the following information:
1. Identity of the hazardous substance(s) contained therein; and
2. Appropriate hazard warnings in pictures, symbols and/or words and will include the Global Harmonization System (GHS).

A. **Hazard symbols** common at CSU East Bay

<table>
<thead>
<tr>
<th>Generic Symbol</th>
<th>GHS Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irritant</td>
<td><img src="image" alt="Irritant" /></td>
</tr>
<tr>
<td>Corrosive</td>
<td><img src="image" alt="Corrosive" /></td>
</tr>
<tr>
<td>Flammable</td>
<td><img src="image" alt="Flammable" /></td>
</tr>
<tr>
<td>Toxic</td>
<td><img src="image" alt="Toxic" /></td>
</tr>
<tr>
<td>Oxidizer</td>
<td><img src="image" alt="Oxidizer" /></td>
</tr>
<tr>
<td>Biohazardous</td>
<td>None</td>
</tr>
<tr>
<td>Radioactive</td>
<td>None</td>
</tr>
</tbody>
</table>
Carcinogen

- Respiratory Sensitizer
- Reproductive Toxicity
- Target Organ Toxicity
- Mutagenicity
- Aspiration Toxicity

B. **Labels** may include:

The **Hazardous Materials Identification System** (HMIS)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Flammability</td>
<td></td>
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<tr>
<td>Physical Hazard</td>
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<tr>
<td>Personal Protection</td>
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</tbody>
</table>

or The **National Fire Protection Association Diamond** (NFPA):

Both Systems use the following numbering system to indicate the degree of the hazard.

**BLUE = HEALTH HAZARD**, RANGES FROM 0 (NORMAL MATERIAL) TO 4 (DEADLY)

**RED = FLAMMABILITY**, RANGES FROM 0 (WILL NOT BURN) TO 4 (FLASHPOINT 73 DEGREES F)
YELLOW = REACTIVITY, RANGES FROM 0 (STABLE) TO 4 (MAY DETONATE)

WHITE = SPECIAL HAZARD

OX = OXIDIZER

ACID = ACID

ALK = ALKALI

CORR = CORROSIVE

USE NO WATER

C. Word hazard warnings such as Flammable, Poison, Fatal If Swallowed or:

DANGER = Highest degree of hazard (red text)

WARNING = Intermediate degree of hazard (orange text)

CAUTION = Lowest degree of hazard (yellow text).

2. Signs, placards, etc., may be used to label individual stationary process containers.

3. Portable containers are not required to be labeled if it is intended for immediate use by the employee who performs the transfer.

4. Labels shall not be removed or intentionally defaced.

5. 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.

6. New labels do not need to be affixed if existing labels already convey the required information.

7. Facility piping must be labeled with the contents and direction of flow.
9.0 Material Safety Data Sheets (MSDS):

1. Employers shall have a material safety data sheet for each hazardous substance, which they use.

2. Each material safety data sheet shall be in English and shall contain at least the following information:

   A. The identity used on the label,

   B. Physical and chemical properties of the hazardous substance (such as vapor pressure, flashpoint);

   C. The physical hazards of the hazardous substance, including the potential for fire, explosion, and reactivity;

   D. The health hazards of the hazardous substance, including signs and symptoms of exposure, and any medical conditions which are generally recognized as being aggravated by exposure to the substance;

   E. The health hazards of the hazardous substance, including signs and symptoms of exposure, and any medical conditions which are generally recognized as being aggravated by exposure to the substance;

   F. The potential route(s) of entry;

   G. The OSHA permissible exposure limit, ACGIH Threshold Limit Value, and any other exposure limit used or recommended by the manufacturer, importer, or employer preparing the material safety data sheet, where available.

   H. Whether the hazardous substance is listed in the NTP or IARC, or by OSHA;

   I. Applicable precautions for safe handling and use including the appropriate hygienic practices, protective measures during repair and maintenance of contaminated equipment, and procedures for cleanup of spills and leaks;

   J. Any generally applicable control measures which are known to the manufacturer, importer, employer preparing the material safety data sheet, such as appropriate engineering controls, work practices, or personal protective equipment;

   K. Emergency and first-aid procedures;

   L. The date of preparation of the material safety data sheet or
the last change to it;

M. The name, address and telephone number of the manufacturer, importer, employer, or other responsible party preparing or distributing the material safety data sheet, who can provide additional information on the hazardous substance and appropriate emergency procedures, if necessary; and,

N. A description of the specific potential health risks posed by the hazardous substance intended to alert any person reading the information.

O. Copies of the required material safety data sheets shall be maintained for each hazardous substance in the workplace, and shall be readily accessible during each work shift to employees when they are in their work area(s).

### 10.0 Employee Information and Training:

1. 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.

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

   A. The requirements of this section.

   B. Any operations in their work area where hazardous substances are present.

   C. Physical and health hazards of the substances in the work area, and the measures they can take to protect themselves from these hazards. This includes specific procedures the employer has implemented to protect employees from exposure to hazardous substances, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.

   D. The hazard communication program developed by the employer, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.
E. Employees shall be informed of their right:

1. To personally receive information regarding hazardous substances to which they may be exposed;
2. For their physician or collective bargaining agent to receive information regarding hazardous substances to which the employee may be exposed;
3. 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.

F. 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.

A. In the case of a medical emergency, the chemical identity must be immediately disclosed to medical personnel.

B. 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

1. Explains why the disclosure of the specific chemical identity is essential, and
2. Describes the procedures by which the disclosed information will be kept confidential.

12.0 Document History

<table>
<thead>
<tr>
<th>Document Revision</th>
<th>Date</th>
<th>Prepared by</th>
<th>Approved by</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>New – Version 0</td>
<td>30 May 2012</td>
<td>EHS</td>
<td>D.Placzek</td>
<td></td>
</tr>
<tr>
<td>Version 1</td>
<td>30 May 2012</td>
<td>EHS</td>
<td>D.Placzek</td>
<td>Added GHS information</td>
</tr>
</tbody>
</table>