Hazard Communication Implementation Plan

Purpose of the Stanford University Hazard Communication Program
The Stanford University Hazard Communication Program was developed to communicate hazard and safety information about hazardous substances to employees working in non-research activities and comply with Cal/OSHA requirements (8 CCR Section 5194). Key elements of this program include: hazard identification, training and communication, labels, and Safety Data Sheets (SDSs). The Stanford University Hazard Communication Program can be found online at: https://ehs.stanford.edu/topic/general-workplace-safety/hazard-communication

How to Use this Hazard Communication Implementation Plan
This Hazard Communication Implementation Plan provides guidance on how to comply with requirements set by the Stanford University Hazard Communication Program for the following:

I. Chemical Inventory
II. Safety Data Sheets (SDSs)
III. Labeling of Hazardous Substances
IV. Safety Training

This guide provides best practices for all the tasks outlined in the Stanford University Hazard Communication Program. Contact EH&S Occupational Safety and Health (OSH) Program for additional assistance at (650) 723-0448.

Available Resources
- Manufacturer-provided Safety Data Sheets (SDSs)
  - Alternative: msds.stanford.edu
- Locally-developed Standard Operating Procedures (SOPs)
- EH&S-published fact sheets on hazardous substances available at: https://ehs.stanford.edu/standard-operating-procedure

Responsibilities

Supervisor Responsibilities
- Identify and maintain inventory of hazardous substances present in the work area.
- Obtain Safety Data Sheets (SDSs) for hazardous substances used in the work area and ensuring SDSs are available to all employees.
- Ensure hazardous substances are labeled.
- Ensure employees are trained on general and job-specific Hazard Communication.

Employee Responsibilities
- Know the hazards and safe work practices for the hazardous substances used in their work area.
- Complete general and job-specific Hazard Communication training.
- Plan and conduct operations in accordance with established procedures and good safety practices.
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I. Chemical Inventory

All departments shall maintain an inventory of chemicals used in the workplace. At Stanford, chemical inventories are managed using ChemTracker, an online inventory system provided by EH&S.

Additional information is available online: https://ehs.stanford.edu/topic/chemical-safety/chemical-inventory-management

<table>
<thead>
<tr>
<th>What do I do?</th>
<th>How do I do it?</th>
</tr>
</thead>
</table>
| 1. Maintain an inventory of all substances used | • Regularly update ChemTracker system with the substances and quantities used in the workplace.  
  o https://ehs.stanford.edu/topic/chemical-safety/chemical-inventory-management |

II. Safety Data Sheets (SDSs)

Safety Data Sheets (SDSs) are documents produced by the manufacturer with information on hazards associated with a hazardous substance. SDSs have to be made available to all employees that work with hazardous substances. They can also be used as training tools to educate employees on safe handling and use practices with chemicals found in the workplace.

A SDS includes:
• Chemical composition and properties of the hazardous substance  
• Health and physical hazards of the hazardous substance  
• Safe handling/storage/control methods  
• Emergency response and first aid procedures

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<tr>
<th>What do I do?</th>
<th>How do I do it?</th>
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| 1. Obtain SDS for hazardous substances | • Request SDS from manufacturer/vendor during ordering process  
  • Search for SDS on msds.stanford.edu |
| 2. Make SDSs available to all employees | • Create a SDS compilation  
  o Compile SDSs for hazardous substances present in work area  
  o Place SDS compilation in an area accessible to all employees  
  o Notify employees of SDS compilation location and/or  
  • Inform employees how to access/use msds.stanford.edu |
| 3. Update SDSs as needed | • Request SDS from manufacturer/vendor during ordering process  
  • Replace SDS from SDS compilation as needed |
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III. Labeling of Hazardous Substances

Labels clearly and quickly communicate the identity and the physical and health hazards associated with hazardous substances in the workplace. Understanding the information provided in labels aid in safe handling and avoiding potential health effects of hazardous substances.

All hazardous substance containers shall be labeled with the following information:
- Substance/Material name.
- Hazard warnings and/or pictograms.

<table>
<thead>
<tr>
<th>What do I do?</th>
<th>How do I do it?</th>
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</thead>
<tbody>
<tr>
<td>1. Ensure all hazardous substances containers</td>
<td>As needed (when labels are illegible, damaged, etc.):</td>
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<tr>
<td>are labeled</td>
<td>• Use pre-made labels or make your own</td>
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<tr>
<td>2. Label all above-ground pipes</td>
<td>• Label pipe with the gas/liquid inside of it &amp; directional flow</td>
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IV. Safety Training

Non-research personnel who may come into contact with hazardous substances require:
- Initial Hazard Communication training (EHS-4300)
- Job-specific training on safe use/handling/storage specific to hazardous substances in the work area.

Additional training is required when a process changes significantly, or a new substance is introduced into the work area.

<table>
<thead>
<tr>
<th>What do I do?</th>
<th>How do I do it?</th>
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<tbody>
<tr>
<td>1. Complete initial Hazard Communication training (EHS-4300).</td>
<td>• Online Hazard Communication training (EHS-4300) via AXESS/STARS:</td>
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<tr>
<td></td>
<td>OWSE_LEARNER.GBL&amp;type=COURSE&amp;code=EHS-4300</td>
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<td></td>
<td>• To schedule an in-person training for 8+ employees, contact EH&amp;S OSH</td>
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<tr>
<td></td>
<td>Program at (650) 723-0448.</td>
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<tr>
<td>2. Complete job-specific Hazard</td>
<td>• Contact supervisor for job-specific Hazard Communication training.</td>
</tr>
<tr>
<td>Communication training.</td>
<td>• Topics covered in job-specific training of hazardous substances include:</td>
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<tr>
<td></td>
<td>o Physical and health hazards.</td>
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<td></td>
<td>o How to detect the presence or release of the material</td>
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<td></td>
<td>o Safety procedures</td>
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<td></td>
<td>▪ Appropriate control methods (engineering controls, administrative</td>
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<td></td>
<td>controls, and/or personal protective equipment).</td>
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<td></td>
<td>▪ First aid and emergency response.</td>
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### IV. Safety Training

### Additional References

#### Hazard Communication Pictograms

<table>
<thead>
<tr>
<th>Explosives</th>
<th>Flammables</th>
<th>Oxidizers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Self-reactives</td>
<td>• Self-reactives</td>
<td></td>
</tr>
<tr>
<td>• Organic peroxides</td>
<td>• Pyrophorics</td>
<td></td>
</tr>
<tr>
<td>• Self-heating</td>
<td>• Self-heating</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gas under pressure</th>
<th>Carcinogen</th>
<th>Acute toxicity (severe)</th>
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</thead>
<tbody>
<tr>
<td>• Reproductive Toxicity</td>
<td>• Target organ toxicity</td>
<td></td>
</tr>
<tr>
<td>• Mutagenicity</td>
<td>• Pyrophorics</td>
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</table>

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<thead>
<tr>
<th>Environmental toxicity</th>
<th>Irritant</th>
<th>Corrosives</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Dermal sensitizer</td>
<td>• Acute toxicity (harmful)</td>
<td></td>
</tr>
<tr>
<td>• Acute toxicity</td>
<td>• Respiratory tract irritation</td>
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</tbody>
</table>

### General Emergency Response

Consult SDSs, SOPs, and fact sheets for specific first aid procedures and spill response specific to each substance. General first aid and spill response procedures are outlined below.

#### First Aid

**Eye contact:**
- Flush eye with running water for 15 minutes.
- Seek medical attention.

**Dermal contact:**
- Remove clothes from affected area.
- Flush skin with running water for 15 minutes.
- Seek medical attention.

**Inhalation:**
- Remove victim from contaminated area.
- Seek medical attention.

**Ingestion**
- Consult Safety Data Sheet (SDS) for first aid.
- Seek medical attention.

#### Spill Response

Employees can clean up a spill under the following conditions:
- Spill is <30mL, **and**
- Employee is knowledgeable of the substance’s hazards, **and**
- Employee can clean up the spill with the materials at hand, **and**
- Appropriate Personal Protective Equipment (PPE) is available and used during spill cleanup.

Immediately call EH&S (725-9999) if:
- Spill is not contained and might enter the environment, **or**
- Spill is >30mL, **or**
- Cleanup cannot be completed in 15 minutes.