

# UCSB Hazard Communication Program and GHS Training Handout

## Program Overview

Employers are required to have a written Hazard Communication Program (HCP) if their employees may be exposed to hazardous chemicals. Components of the HCP include training, chemical labeling and inventories, safety data sheets, hazard assessments and exposure controls. The UCSB Hazard Communication Program Manual can be accessed online at: <http://www.ehs.ucsb.edu/ih/hazard-communication-program>

## Safety Data Sheets and Chemical Inventories

Safety Data Sheets (SDS) are developed by the chemical manufacturer to provide information concerning safe use of the product. They provide workers and emergency personnel with information about physical properties (melting point, boiling point, flash point, etc.), toxicity, health effects, first aid measures, reactivity, storage, disposal, protective equipment, and spill-handling procedures. SDSs are required by law to be readily available for every hazardous chemical at each worksite along with an up to date chemical inventory. The University of California has a SDS resource center which can be found here: <http://ucsd.com/#/frontpage>

## GHS Pictograms and Hazard Classes

The recently updated Hazard Communication Standard (HCS) requires certain pictograms be included on manufacturer and supplier labels of chemical containers to warn you of potential hazards of exposure. The pictograms on the right are part of the new Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.

## Chemical Container Labeling

It is extremely important that all containers of chemicals are properly labeled. The HCS dictates the following workplace (in-house) labeling requirements:

- Labels must identify the hazardous chemicals contained therein using either the chemical or common/trade name.
- Labels or other forms of hazard warnings must be legible, in English, and prominently displayed on the chemical container or area of use.
- Labels must contain appropriate GHS hazard warnings and/or signal words.

## Example of a GHS Compliant Label

<b>PRODUCT IDENTIFIER</b>		
Universal Product Code		
<b>SIGNAL WORD</b>		
Hazard statement		
Precautionary statements & pictograms		
Fill Weight:	Lot Number:	
Gross Weight:	Fill Date:	
Expiration Date:		
Company Name, Street Address, City, State, Zip, Country, Phone Number, Emergency Phone		

GHS - Hazard Pictograms and Related Hazard Classes		
<b>Explosing Bomb</b> <ul style="list-style-type: none"> <li>• Explosives</li> <li>• Self-reactives</li> <li>• Organic Peroxides</li> </ul>	<b>Corrosion</b> <ul style="list-style-type: none"> <li>• Skin corrosion/burns</li> <li>• Eye damage</li> <li>• Corrosive to metals</li> </ul>	<b>Flame Over Circle</b> <ul style="list-style-type: none"> <li>• Oxidizing gases</li> <li>• Oxidizing liquids</li> <li>• Oxidizing solids</li> </ul>
<b>Gas Cylinder</b> <ul style="list-style-type: none"> <li>• Gases under pressure</li> </ul>	<b>Environment</b> <ul style="list-style-type: none"> <li>• Aquatic toxicity</li> </ul>	<b>Skull &amp; Crossbones</b> <ul style="list-style-type: none"> <li>• Acute toxicity (fatal or toxic)</li> </ul>
<b>Exclamation Mark</b> <ul style="list-style-type: none"> <li>• Irritant (eye &amp; skin)</li> <li>• Skin sensitizer</li> <li>• Acute toxicity</li> <li>• Narcotic effects</li> <li>• Respiratory tract irritant</li> <li>• Hazardous to ozone layer (non-mandatory)</li> </ul>	<b>Health Hazard</b> <ul style="list-style-type: none"> <li>• Carcinogen</li> <li>• Mutagenicity</li> <li>• Reproductive toxicity</li> <li>• Respiratory sensitizer</li> <li>• Target organ toxicity</li> <li>• Aspiration toxicity</li> </ul>	<b>Flame</b> <ul style="list-style-type: none"> <li>• Flammables</li> <li>• Pyrophorics</li> <li>• Self-heating</li> <li>• Emits flammable gas</li> <li>• Self-reactives</li> <li>• Organic peroxides</li> </ul>

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## Employee Rights

Employees have the following rights under the Hazard Communication Program:

- To receive information regarding hazardous substances to which you may be exposed.
- For your physician or collective bargaining representative to receive information regarding hazardous substances to which you may be exposed.
- Access your medical and exposure monitoring records.
- Against discharge or other discrimination due to exercising their right to know.

## Chemical Hazard Assessments

A thorough hazard assessment should be conducted whenever a new job task or hazardous chemical is introduced into the workplace. The hazard assessment should encompass the entire process and identify both real and potential hazards. The evaluation should focus on eliminating or reducing hazards through the use of engineering controls, proper work practices and PPE. For more instructions on completing a hazard assessment and an example of a hazard assessment form click on this link:

[http://www.ehs.ucsb.edu/units/ih/ihrsc/PPE\\_Hazard\\_Assessment\\_Form.pdf](http://www.ehs.ucsb.edu/units/ih/ihrsc/PPE_Hazard_Assessment_Form.pdf)

## Safe Work Practices

It is important to use the following safe work practices whenever you use hazardous chemicals:

- Obtain and read the Safety Data Sheets prior to starting work.
- Eliminate the use of hazardous chemicals, or substitute for less hazardous chemicals whenever possible.
- Limit the volume of hazardous chemicals to the minimum needed.
- Keep the work areas clean and orderly.
- Provide means of containing the material if primary containers break or spill (secondary containment, sorbent material, etc.).
- Implement engineering and/or administrative controls to reduce exposure.
- Use necessary personal protective equipment (gloves, eye protection, etc.).

## Chemical Storage

The proper separation of chemicals during storage is necessary to reduce the possibility of unwanted chemical reactions caused by accidental mixing. Use either distance or barriers (e.g., trays) to isolate chemicals into the following groups; acids, bases, flammables and oxidizers. Always store chemicals in a well-ventilated area and avoid stockpiling chemicals by purchasing only what is needed. Conduct periodic cleanouts to minimize the accumulation of unwanted chemicals.

## Spill Response and Cleanup

You should always have a spill response plan in place prior to working with hazardous chemicals.

However, you should NOT attempt to clean up a spill if:

- If the spilled material is unknown or highly toxic.
- You lack the knowledge or necessary equipment to do the cleanup safely.
- The spill is large and cannot be contained with a small spill kit.
- You are experiencing symptoms of exposure.

If spill clean-up assistance is required, contact EH&S. Call 911 or you campus emergency line if spill is an immediate danger to the health of employees or property.