Safety & Risk Management Policies and Procedures

Title: Hazard Communication Policy
Date: 2001, September 2017 revised

Rationale: Southwestern University employees and students have a right to know about the dangers of hazardous chemicals that they work with and what they can do to avoid injury or illness when working with these chemicals. In addition, this program is required by OSHA.

Goals: To provide a system of communicating to employees the risks and inherent dangers of working with hazardous chemicals in an effort to reduce or eliminate chemical related injuries, illnesses, or incidents.

Policy: Department Heads are responsible for ensuring the implementation of this program for all users of potentially hazardous chemicals. Initial OSHA HazCom training will be provided to employees by the Safety & Risk Management Office upon request from each affected Department. Departments/Supervisors will be responsible to provide site specific hazard communication instruction to employees/students regarding the types (classes) of chemicals used in their workplace, how to safely use these chemicals and how the employee/student can protect themselves from over-exposure. The Safety and Risk Management Office will periodically audit departments for compliance using Safety-Reports safety audit software. Items or issues noted to be deficient will be required to be corrected, overseen and confirmed by the affected Department Head in a prompt manner.

Procedure: This HazCom policy and procedure covers in detail:

- How to obtain a Safety Data Sheet
- The proper labels to use on hazardous materials
- OSHA training requirements for employees and employers
- Summarized information cards regarding pictograms and safety data sheets

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OSHA Requirements

The OSHA Hazard Communication Standard (29CFR 1910.1200) requires that all employers develop and implement a written hazard communication program. This written program describes how the OSHA Hazard Communication Standard requirements are met at Southwestern University. The purpose of this program is to ensure that:

1) All Employees/Students are aware of our Hazard Communication Program.
2) All chemical hazards and processes are evaluated by the department.
3) All hazardous chemicals used in the work place are clearly labeled and maintained, and an updated list of chemicals (chemical inventory) is maintained and kept in the hazard communication notebook and is readily accessible upon request. Chemical inventory will be managed by CHIMERA – our chemical inventory management system and adopted by departments from June 2017 – 2018.
4) Material Safety Data Sheets/Safety Data Sheets (MSDS/SDS) are readily available for all hazardous chemicals upon request. Provided in HazCom notebook until CHIMERA system is adopted. All SDS in CHIMERA will be available to registered users and made "readily available" to all chemical users.
5) Employees receive information and training on the requirements of the OSHA HazCom Standard, instructed about specific chemical hazards used in their work place and informed how to protect themselves by their departments/supervisors as well as establishing safe work practices for tasks or processes involving hazardous chemicals.
6) All persons involved in non-routine work tasks are informed of the hazards of such tasks by their department/supervisor.
7) Contractors (who are responsible to communicate to their employees) will be informed of chemical hazards before performing work in our facility by the department head hiring the contractor; and sub-contractors will inform us of any hazardous materials brought into our facility.

Revised GHS 2012 definition of "hazardous chemical": any chemical which is classified as a physical hazard, health hazard, simple asphyxiate, combustible dust, pyrophoric gas or hazard not otherwise classified.

Special Exemptions and Provisions

The law has special provisions for certain specific situations. These special situations are:

- Laboratories: Although laboratory employees are covered more specifically by the OSHA Occupational Exposure to Hazardous Work in Laboratories, the Hazard Communication Program will apply:

- Sealed Containers: Operations such as warehousing, where Employees handle only sealed containers are generally exempt. However, the following aspects of the Hazard Communication Program will apply:
    1. Labels on incoming containers are not to be removed or defaced.

2. MSDSs that are received with incoming containers must be kept and maintained.
3. If requested by employees, MSDSs must be obtained and accessible.
4. The department will provide information and training sufficient to protect employees from hazards presented by the contents of sealed containers should they spill or leak.

- Non-routine Tasks: This section applies to jobs that are not performed on a routine basis and may involve contact with a hazardous chemical.Supervisors will determine what chemical hazards are present or may be created by the task. The Supervisor is responsible for communicating hazard or potential hazard information to employees. Employees will be informed of the hazards presented by the non-routine task and how they can/should protect themselves.

Hazard Communications Requirements: Employees Covered and Employee List

- Our hazard communication program applies to employees/students who are potentially exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies.
- A list of employees, including job titles, tasks they perform, and classes of chemicals involved, will be compiled by each department and added to the hazard communication notebook. Individual student names do not need to be included (use generic heading "students").
- This list should be updated by the Department Head or representative on an annual basis to keep current track of employees who handle chemicals in your department.

Dept.	*Job Title*	*Name*	*Room/Area*	*Task*	*Chemical Hazards*
Physical Plant	***Painter I***	***John Picasso***	***Paint Shop***	***Painting and clean-up of equipment***	***Paint, solvents, adhesives are toxic and flammable***
	Custodian I	***Mary Maid***	***Custodial closets and bathrooms***	***Cleaning bathroom surfaces***	***Cleaning products - some are very corrosive (acids)***
Art Dept.	***Art Faculty***	**Mary Matisse**	***Print Shop***	***etching plates and ink plate clean-up***	***Etching compounds are very corrosive (acids). Clean-up solvents are toxic and very flammable.***
	Art Students	***Students***	***Print Shop***	***etching plates***	***Etching compounds are very corrosive (acids)***

Hazardous Chemical Inventory List

- Department Heads/Supervisors will maintain their hazardous chemical list in an up-to-date fashion. Serious efforts shall be taken to substitute to less hazardous chemicals whenever feasible or eliminate the hazardous process if it cannot be conducted safely (due to lack of engineering controls). Starting in June 2017, affected Southwestern departments will begin to adopt CHIMERA, a web-based chemical inventory management system. Hazcom notebooks shall be maintained. Excel inventories shall be maintained until CHIMERA is adopted and integrated.

- **Sample Chemical Inventory List in Excel**

Department: Physical Plant - Custodial
Location: Cullen Bldg.

Product	Chemical	Location	Quantity	CAS#	Hazard Class
Bolex Cleaner	Hydrogen chloride	Custodial closet # 112	1 quart	7647-01-1	Corrosive – acid
Bolex Cleaner	Hydrogen chloride	Custodial closet # 200	1 quart	7647-01-1	Corrosive – acid
4 – Sure Cleaner	Phosphoric acid	Custodial closet # 112	1 gallon	7664-38-2	Corrosive - acid

Material Safety Data Sheets/Safety Data Sheets – GHS

- The safety data sheet (SDS) provides comprehensive information about the chemical product that allows employers and workers to obtain standardized chemical information. The SDS should contain 16 sections. Departments will need to be sure all hazardous chemicals have new GHS – SDS's by June 1, 2016.
- Supervisors will obtain the MSDS/SDS for hazardous chemicals stored and/or used in their department/section and insert them in their HazCom notebook or make them readily available from on-line sources. Once CHIMERA inventory is completed and adopted, SDS's will be available via the web-based chemical inventory system.
- As departments adopt and integrate CHIMERA, all SDS's will be automatically attached to the chemical inventory for each specific chemical. Department Heads are responsible to ensure all employees are aware and familiar with CHIMERA and have access to SDS.

Obtaining MSDSs

- Employers must ensure that SDSs are readily accessible to employees**.** As departments adopt CHIMERA, the SDS for each chemical in the web-based inventory will be automatically attached and kept up to date by staff at UNLV (host of CHIMERA).

- Most often a chemical shipment is accompanied by an MSDS/SDS from the supplier/manufacturer. This is the most preferred method of obtaining and storing a correct MSDS/SDS for quick access until adoption of CHIMERA.
- If this is not available, MSDSs can be obtained from the following web sites:
    1. http://msds.pdc.cornell.edu/issearch/msdsrch.html
    2. http://haz/siri.org/msds/index.html

Distribution of MSDSs/SDS's

- The SDS for each chemical in the web-based inventory will be automatically attached and kept up to date by staff at UNLV (host of CHIMERA). When new chemicals are ordered, the department must adopt an SOP that ensures all chemicals are barcoded and scanned into CHIMERA. This will ensure the SDS is added and available on our CHIMERA website.
- Until adoption of CHIMERA, when a new or revised MSDS/SDS is received by the department, it will be placed in the Hazard Communication Program binder. The MSDS/SDS shall not be discarded until all supplies of current inventory for that chemical/product are used.
- The department is responsible to ensure a procedure is developed and implemented to provide the SDS for any chemical/product to any requestor. In event of an exposure incident, SDS should be made available immediately. Backup staff should be identified in the event a primary contact is off-campus.

Employee Requests for MSDSs/SDS's

- Employees/students who use or handle potentially hazardous chemicals are strongly encouraged to review the MSDS/SDS of all products they may use. Copies of MSDS/SDS must be "readily available" to any employee upon their request. Department Head is responsible to ensure a process is developed, communicated and access to SDS is available upon request. This process includes the web based chemical inventory management system (CHIMNERA).

GHS Haz Com Changes from MSDS to SDS

- As of June 1, 2015, the HCS will require new SDSs to be in a uniform format, and include the section numbers, the headings, and associated information under the headings below:

    1. **Section 1: Identification** includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.
    2. **Section 2: Hazard(s)** identification includes all hazards regarding the chemical; required label elements.
    3. **Section 3: Composition/information** on ingredients includes information on chemical ingredients; trade secret claims.
    4. **Section 4: First-aid measures** include important symptoms/effects, both acute and delayed; required treatment.

5. **Section 5: Fire-fighting measures** lists suitable extinguishing techniques, equipment; chemical hazards from fire.
6. **Section 6: Accidental release** measures lists the emergency procedures; protective equipment; proper methods of containment and cleanup.
7. **Section 7: Handling and storage** lists precautions for safe handling and storage, including incompatibilities.
8. **Section 8: Exposure controls/personal protection** lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).
9. **Section 9: Physical and chemical properties** lists the chemical's characteristics.
10. **Section 10: Stability and reactivity** lists chemical stability and possibility of hazardous reactions.
11. **Section 11: Toxicological information** includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.
12. **Section 12: Ecological information***
13. **Section 13: Disposal considerations***
14. **Section 14: Transport information***
15. **Section 15: Regulatory information***
16. **Section 16: Other information**, includes the date of preparation or last revision.

- **Note**: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15(29 CFR 1910.1200(g)(2)).
- Employers must ensure that SDSs are readily accessible to employees**.** As departments adopt CHIMERA, the SDS for each chemical in the web-based inventory will be automatically attached and kept up to date by staff at UNLV (host of CHIMERA).
- **See Appendix D of 1910.1200** at http://www.osha.gov/dsg/hazcom/hazcom-appendix-d.html for a detailed description of the required elements and format for SDS provided by manufacturers of hazardous chemicals.

Labels and Other Forms of Warning

- OSHA has updated the requirements for labeling of hazardous chemicals under its Hazard Communication Standard (HCS). As of June 1, 2015, manufacturer's will ensure that all labels will be required to have pictograms, a signal word, hazard and precautionary statements, the product identifier, and supplier identification. Department Heads will need to ensure all new hazardous chemicals ordered or brought into the facility have GHS compliant labels by June 1, 2016. NOTE: older existing stock chemicals do not need to be relabeled with GHS labels. Department Heads are responsible to ensure that all chemical users are aware of all labeling systems and associated hazard warnings (NFPA, HMIS, GHS).

General Requirements

- Chemical manufacturers, importers, and distributors are required to label all containers of hazardous chemicals. New GHS compliant labels will be provided for all hazardous chemicals by December 1, 2015.
- The GHS labels must include:

1. Product Identifier: identity of the hazardous chemical
2. Supplier/Manufacturer Information
3. Signal Word – Danger or Warning
4. Hazard Statements
5. Precuationary Statements
6. Pictograms

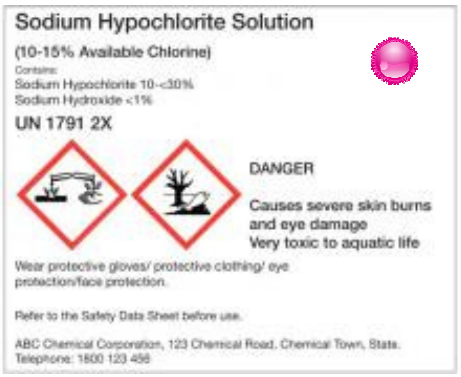
- Labels on incoming containers of hazardous materials shall not be removed or defaced.

Solid Metal

- Suppliers of solid metal materials that may emit hazardous substances when worked upon are required to supply labels with the first shipment of that material.

In-house Labeling System

- When materials are transferred from a labeled container to another container, the receiving container must be labeled in a manner to effectively relay the hazards of that chemical.
- Any labels developed in-house will derive their information from the original labels and/or the MSDS/SDS. Southwestern University uses an optional labeling method when it is not feasible to label hazardous chemical containers due to their very small size.
- The system is comprised of placing a round color-coded sticker on the chemical container and match that to a proper label with that same color-coded sticker to a HazCom bulletin board mounted in a conspicuous area in that work area.



Labeling of Portable Secondary Containers – Conditional Exemption

- Transient Container Exception - Used in less than one work-shift and under the direct control of the person filling the containers (know contents and hazards of the chemical). Examples where applicable:
  1. Mass experiment conducted within a science lab period.
  2. Science students testing for unknowns.
  3. Expected use: beakers, flasks, vials, etc.

Stationary Containers

- For processes using in-house stationary containers, such as above ground gas tanks, signs or placards may be used in lieu of labels, as long as the signs and placards meet the labeling requirements. Pipes and piping systems very near these tanks/containers do not

have to be labeled. However, hazard information about the hazardous chemicals within those pipes/systems, must be on file in the MSDS/SDS file (Haz. Com. Notebook).

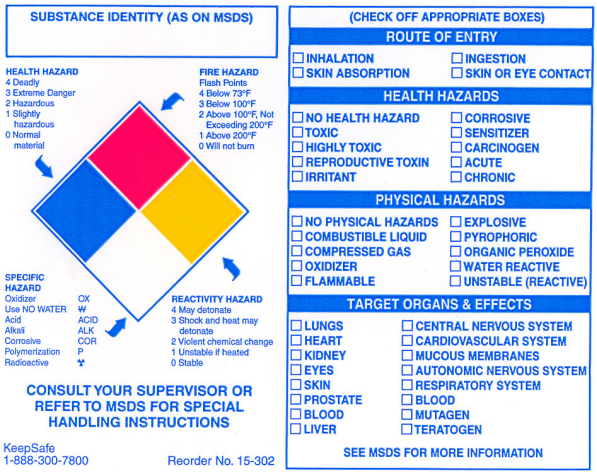
Labeling of Pipes/Systems

- Pipes and systems containing hazardous chemicals shall be labeled showing the contents and hazards of the chemical wherever these pipes/systems are accessible. Employees who routinely work in these areas shall be informed of the potential hazards in the event of a rupture, spill, or leak of those hazardous chemicals into the work area.

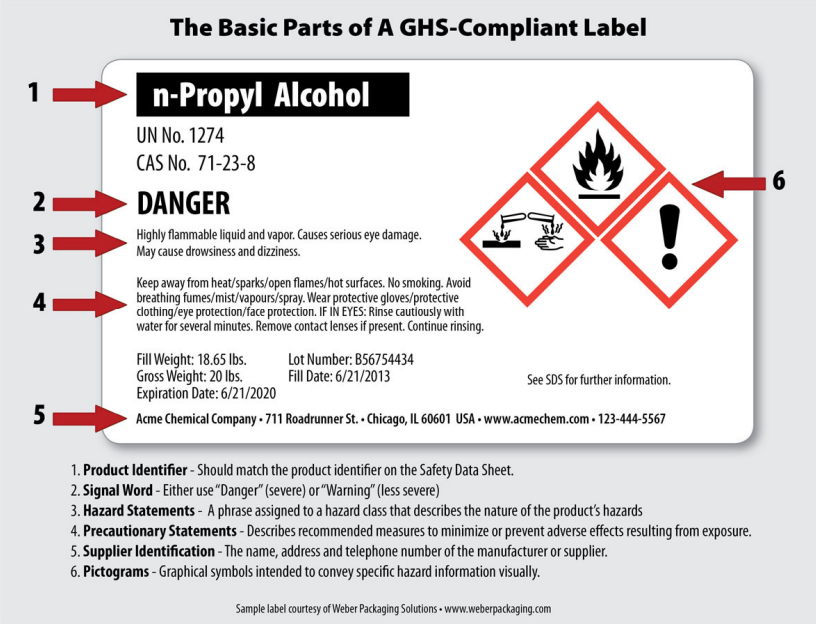
Training Requirements - Labels

- All Employees/Students are to receive training on any in-house labeling system so that they can interpret and understand the labels and information provided. This training will be provided by Supervisors/Departments.

- Examples of Labels:
    1. NFPA/HMIS Label:



    2. GHS Label:



GHS-Pictograms and Hazard Classes

Health Hazard  ▪ Carcinogen ▪ Mutagenicity ▪ Reproductive Toxicity ▪ Respiratory Sensitizer ▪ Target Organ Toxicity ▪ Aspiration Toxicity	**Flame**  ▪ Flammables ▪ Pyrophorics ▪ Self-Heating ▪ Emits Flammable Gas ▪ Self-Reactives ▪ Organic Peroxides	**Exclamation Mark**  ▪ Irritant (skin and eye) ▪ Skin Sensitizer ▪ Acute Toxicity ▪ Narcotic Effects ▪ Respiratory Tract Irritant ▪ Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder  ▪ Gases Under Pressure	**Corrosion**  ▪ Skin Corrosion/Burns ▪ Eye Damage ▪ Corrosive to Metals	**Exploding Bomb**  ▪ Explosives ▪ Self-Reactives ▪ Organic Peroxides
Flame Over Circle  ▪ Oxidizers	**Environment** (Non-Mandatory)  ▪ Aquatic Toxicity	**Skull and Crossbones**  ▪ Acute Toxicity (fatal or toxic)

Hazard Determination Policy

- Chemical manufacturers and importers are required to evaluate the hazards of chemicals which they manufacture. These health hazard determinations are to be based upon scientific evidence. The evidence must be statistically significant and must be based on at least one positive study conducted in accordance with established scientific principles. This health hazard information will appear on the material safety data sheet. The Hazard Communication Standard requires that chemical manufacturers, importers, and distributors provide MSDS for their hazardous chemicals. It is our policy to rely on the MSDS's we receive for information concerning the hazardous chemicals we work with.
- For determination of the hazards of mixtures of chemicals, if a mixture has not been tested as a whole to determine whether the mixture is a health hazard, the mixture shall be assumed to present the same health hazards as do the components which comprise one percent (by weight or volume) or greater of the mixture. If the mixture has not been tested as a whole to determine whether the mixture is a physical hazard, the available scientifically valid data will be used to evaluate the physical hazard potential of the mixture.

Hazardous Chemical Exemptions

- The following substances are exempt from the Hazard Communication Standard and therefore a hazard determination may not be performed for the following products:
    1. Hazardous waste - subject to regulations issued by the Environmental Protection Agency – (RCRA)
    2. Tobacco or tobacco products
    3. Wood or wood products
    4. Articles which would not emit a hazardous substance if worked upon
    5. Foods, drugs, cosmetics, or alcoholic beverages packaged for consumers
    6. Food, drugs, or cosmetics for personal consumption
    7. Consumer cleaning products (hazardous substances) only if used in the same manner, frequency and duration as does the general public. Manufacturer labels and warning statements are still required.
    8. Solid drugs such as tablets, capsules, and pills

Employee Information and Training

- Employees and students are to be informed by their department and/or supervisor of the hazards of the chemicals they specifically work with and methods on how they can protect themselves from over-exposure to these chemicals. Initial new employee training is provided by the Safety and Risk Management Office upon the request of the hiring Department/Supervisor
- Our training program consists of two parts:
    1. Job specific training/instruction is provided by the Supervisor/Lab Instructor (follow checklist on page 15).
    2. OSHA classroom training or video based training is provided by the Safety and Risk Management Office (page 16) at the request of the department. New employee orientation: Employees are also required to read/review the Southwestern HazCom Program. By reading this program – substantial

components of the training requirements will be met and the employee will gain a better understanding of Hazard Communication and methods to protect themselves from chemical hazards used in the workplace.

Employees Requiring Training

Those employees who have potential exposure to hazardous chemicals will receive training.

- The Hazard Communication Standard has special training provisions for personnel who handle **sealed containers of hazardous chemicals** and for **laboratory personnel**. Laboratory "employees" are also covered by the OSHA Laboratory Standard.
- The list below contains the minimum required topics for the training that must be completed by December 1, 2013. Training on label elements must include information on type of information the employee would expect to see on the new labels, including the following:
    1. **Product identifier:** how the hazardous chemical is identified. This can be (but is not limited to) the chemical name, code number, or batch number. The manufacturer, importer, or distributor can decide the appropriate product identifier. The same product identifier must be both on the label and in Section 1 of the SDS (Identification).
    2. **Signal word:** used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. There are only two signal words, "Danger" and "Warning." Within a specific hazard class, "Danger" is used for the more severe hazards and "Warning" is used for the less severe hazards. There will only be one signal word on the label no matter how many hazards a chemical may have. If one of the hazards warrants a "Danger" signal word and another warrants the signal word "Warning," then only "Danger" should appear on the label.
    3. **Pictogram:** OSHA's required pictograms must be in the shape of a square set at a point and include a black hazard symbol on a white background with a red frame sufficiently wide enough to be clearly visible. A square red frame set at a point without a hazard symbol is not a pictogram and is not permitted on the label. OSHA has designated eight pictograms under this standard for application to a hazard category.
    4. **Hazard statement(s):** describe the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard. For example: "Causes damage to kidneys through prolonged or repeated exposure when absorbed through the skin." All of the applicable hazard statements must appear on the label. Hazard statements may be combined where appropriate to reduce redundancies and improve readability. The hazard statements are specific to the hazard classification categories, and chemical users should always see the same statement for the same hazards, no matter what the chemical is or who produces it.
    5. **Precautionary statement(s):** means 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.
    6. **Name, address, and phone number of the chemical manufacturer, distributor, or importer.**

7. **How an employee might use the labels in the workplace**. For example how information on the label can be used to insure proper storage of hazardous chemicals.
8. **Explain how the information on the label might be used to quickly locate information** on first aid when needed by employees or emergency personnel. General understanding of how the elements work together on a label. *For example*, how to locate a SDS/MSDS using the product name and/or manufacturer from the label.
9. **Explain that where a chemical has multiple hazards**, different pictograms are used to identify the various hazards. The employee should expect to see the appropriate pictogram for the corresponding hazard class.
10. **Explain that when there are similar precautionary statements**, the one providing the most protective information will be included on the label.

- Training on the format of the SDS must include information on the following:
    1. **Standardized 16-section format**, including the type of information found in the various sections. For example, the employee should be instructed that with the new format, Section 8 (Exposure Controls/Personal Protection) will always contain information about exposure limits, engineering controls and ways to protect yourself, including personal protective equipment.
    2. **How the information on the label is related to the SDS**. For example, explain that the precautionary statements would be the same on the label and on the SDS

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Training Materials and postings:

- Informational materials and posters may be found on OSHA's Hazard Communication website: http:// www.osha.gov/dsg/hazcom/index.html
- **OSHA** has QuickCards and OSHA Briefs to assist employers/employees with training.
    1. Label QuickCard - English Appendix 1, Spanish Appendix 2
    2. Pictogram QuickCard - English Appendix 3, Spanish Appendix 4
    3. Safety Data Sheet QuickCard – English Appendix 5, Spanish) Appendix 6
    4. Safety Data Sheet OSHA Brief (to download and place in the SDS/MSDS book or electronic access area – Appendix 7

OSHA Training Requirements from Hazard Communications Standard, Section h

(h) **Employee information and training.**

- (h)(1) Employers shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new chemical hazard the employees have not previously been trained about is introduced into their work area. Information and training may be designed to cover categories of hazards (e.g., flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and safety data sheets.
- (h)(2) Information. Employees shall be informed of:

  (i) The requirements of this section;
  (ii) Any operations in their work area where hazardous chemicals are present; and,
  (iii) The location and availability of the written hazard communication program, including the required list(s) of hazardous chemicals, and safety data sheets required by this section.

- (h)(3) Training. Employee training shall include at least:

  (i) 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.);
  (ii) 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;
  (iii) The measures employees 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; and,
  (iv) 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; the safety data sheet, including the order of information and how employees can obtain and use the appropriate hazard information.

Departmental HazCom Instruction Checklist

1. Complete this instruction checklist and file in departmental HazCom notebook.

2. Inform Employee/Student of the meaning/intent of our HazCom Program and the location and summary of the contents of the Departmental HazCom Notebook. Include information and training for CHIMERA – Southwestern's web-based chemical inventory management system as soon as it is adopted and integrated. ☐

3. Explain to employees/students affected how to access and interpret a MSDS/SDS for hazardous chemicals used in your work area. ☐

4. Inform the Employee/Student about labeling systems in the work area (in particular any in-house labeling system used). ☐

5. Inform the Employee/Student about any <u>hazardous chemicals</u> (groups of chemical classes) or <u>processes</u> used in the work area. Include at least the following: ☐

   - Methods used to determine the chemical's presence or release in the work area
   - Any physical or health hazards associated with the chemicals (class of chemicals)
   - Any personal protective equipment or procedures required to protect themselves, how and where to obtain the PPE, proper use of the PPE, and any emergency procedures

6. Contact and coordinate initial (new employee) training with the Safety & Risk Management Office to attend OSHA Hazard Communication training. ☐

7. Complete & sign this Hazard Communication Initial Instruction Checklist and file in Department Hazcom notebook. ☐

Supervisor Print: _____ Sign: _____

Employee Print: _____ Sign: _____

Date: _____

<u>Lab instructor/supervisor may attach a class sign-in log in lieu of individual signed copies for students.</u>

Departmental HazCom Implementation Guide

Department: _____ Date: _____

1. **Review SU Written Hazard Communication Program**
   - Department Head is responsible to designate a department representative responsible for the overall coordination and implementation of the site specific HazCom program for your department/section. **Dept. Head is responsible to develop and provide a written SOP for the implementation and maintenance of the CHIMERA system. Include from point of purchase, a centralized receiving process, barcode, inventory and depleting all chemicals.**

   - Dept. Rep.: _____ e-mail: _____

2. **Compile Departmental Hazard Communication Notebook**
   - Compile and maintain a list of employee titles and names (including student workers) that have contact with hazardous chemicals. See page 4. Insert in notebook.
   - Complete and maintain annual chemical inventory. Once CHIMERA is adopted and integrated, departments shall maintain a real-time inventory that will accurately reflect all chemicals in the facility at any time. This includes deleting inventory as containers are emptied, disposed of, or prepared for hazardous waste disposal.
   - Ensure all containers of hazardous chemicals are properly labeled per SU HazCom.
   - Ensure MSDS's/SDS's for all hazardous chemicals are available in the HazCom notebook or are readily accessible by web based system until adoption of CHIMERA.
   - Ensure safe storage of chemicals – flammable, corrosive – cabinets.
   - Ensure a process is established for clearly labeling peroxide forming chemicals with date received, date opened, and pre-determined disposal date. Arrange for disposal of peroxide forming chemicals as hazardous waste prior to disposal date.
   - Ensure notebook is completed with a copy of the most recent version of the SU written hazard communication program and update a copy on an annual basis due to revisions..

3. **Ensure all affected employees and new employees have attended initial OSHA HazCom training.**
   - The department representative is responsible to schedule training with Safety and Risk Management Office.

4. **Ensure hazard communication departmental instructions are provided to all affected employees/students.**
   - Use and complete "Departmental Instruction Checklist" on page 14.
   - Maintain permanent filing of checklists in departmental files.

5. **Forward a copy of this completed guide to the Safety Office. Update guide as necessary.** Date completed and sent: _____

Hazard Communication Training Program

This program is presented by the Safety Office to (new) employees who may be exposed to hazardous chemicals in their work area.

Rights & Requirements of the Hazard Communication Standard

- Video Program: Chemical Hazards
    1. Chemical hazard classes: corrosive, reactive, toxic, flammable
    2. Routes of entry: absorption, ingestion, inhalation
    3. Concept of dose / exposure
    4. Threshold limit value - TLV and PEL
    5. Health effects: acute and chronic
    6. Carcinogens
    7. How to detect presence of chemicals - odor, sight, burning of eyes or respiratory tract, air sampling, monitoring devices
    8. Reading labels
    9. MSDS, discussed section by section – how to interpret
    10. Control measures - elimination, substitution, ventilation, personal protective equipment
    11. Federal Hazard Communication Standard
- Question and Answer Period

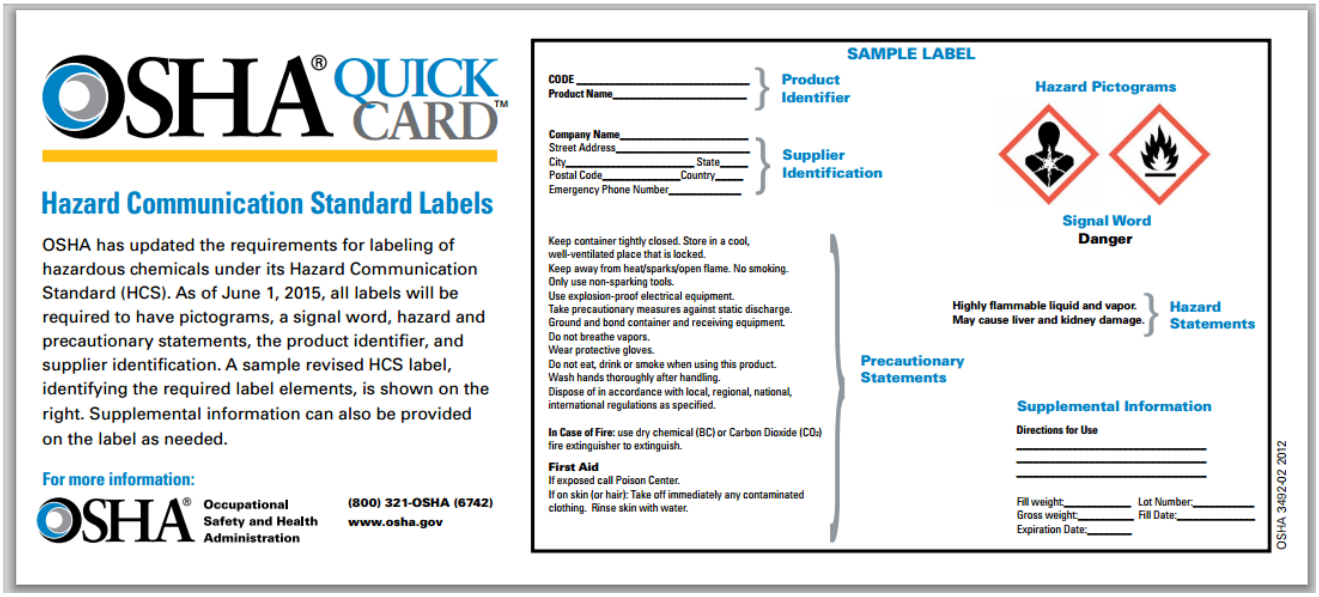
Multiple Employer Coordination Policy

- Occasionally it will be required that an outside employer or a contractor perform operations at our facility. These outside agencies that produce, use, or store hazardous chemicals at our facility may expose our employees to the chemicals they bring on site. The reverse condition may occur where these outside agencies may have their employees exposed to chemicals that we keep on our premises. It is our position that all persons on our premises are entitled to information regarding the chemicals to which they are exposed in their work areas.
- To this end, the Safety Office, in conjunction with Facilities Management/Physical Plant, will coordinate the distribution of information between Southwestern University and any outside employers or contractors. This exchange of information is limited to those situations where an outside employer's employees may be exposed to chemicals.
- Contractors are requested to have available a list of the chemicals used by the contractor while at Southwestern University. Contractors shall make MSDSs/SDSs available immediately on request.

Appendices

Appendix 1 – Label Quick Card – English

- More on this Quick Card can be found at: https://www.osha.gov/Publications/OSHA3492QuickCardLabel.pdf



OSHA® QUICK CARD™

Hazard Communication Standard Labels

OSHA has updated the requirements for labeling of hazardous chemicals under its Hazard Communication Standard (HCS). As of June 1, 2015, all labels will be required to have pictograms, a signal word, hazard and precautionary statements, the product identifier, and supplier identification. A sample revised HCS label, identifying the required label elements, is shown on the right. Supplemental information can also be provided on the label as needed.

For more information:

OSHA® Occupational Safety and Health Administration

(800) 321-OSHA (6742)
www.osha.gov

SAMPLE LABEL

CODE _____
Product Name _____
} Product Identifier

Company Name _____
Street Address _____
City _____ State ____
Postal Code _____ Country ____
Emergency Phone Number _____
} Supplier Identification

Hazard Pictograms

Signal Word
Danger

Keep container tightly closed. Store in a cool, well-ventilated place that is locked.
Keep away from heat/sparks/open flame. No smoking.
Only use non-sparking tools.
Use explosion-proof electrical equipment.
Take precautionary measures against static discharge.
Ground and bond container and receiving equipment.
Do not breathe vapors.
Wear protective gloves.
Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling.
Dispose of in accordance with local, regional, national, international regulations as specified.

Precautionary Statements

Highly flammable liquid and vapor.
May cause liver and kidney damage.
} Hazard Statements

In Case of Fire: use dry chemical (BC) or Carbon Dioxide (CO_2) fire extinguisher to extinguish.

First Aid
If exposed call Poison Center.
If on skin (or hair): Take off immediately any contaminated clothing. Rinse skin with water.

Supplemental Information

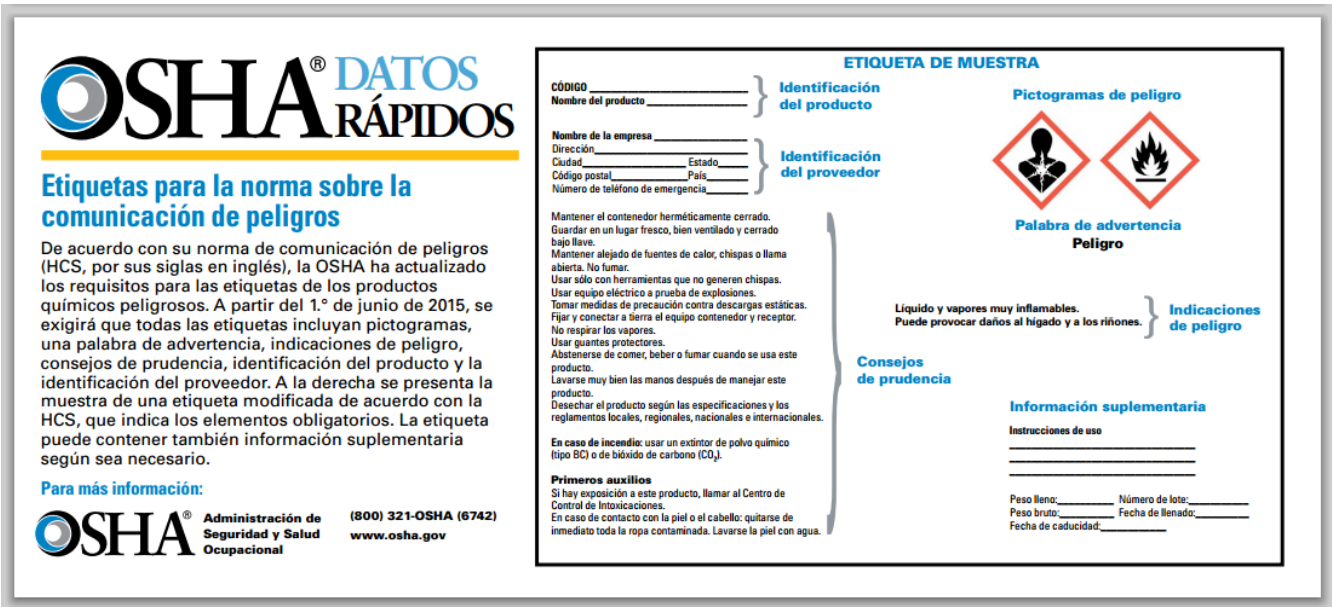
Directions for Use
_____
_____
_____

Fill weight: _____ Lot Number: _____
Gross weight: _____ Fill Date: _____
Expiration Date: _____

OSHA 3492-02 2012

Appendix 2 – Label Quick Card – Spanish

- More on this Quick Card can be found at: https://www.osha.gov/Publications/OSHA3492QuickCardLabel.pdf



OSHA® DATOS RÁPIDOS

Etiquetas para la norma sobre la comunicación de peligros

De acuerdo con su norma de comunicación de peligros (HCS, por sus siglas en inglés), la OSHA ha actualizado los requisitos para las etiquetas de los productos químicos peligrosos. A partir del 1.° de junio de 2015, se exigirá que todas las etiquetas incluyan pictogramas, una palabra de advertencia, indicaciones de peligro, consejos de prudencia, identificación del producto y la identificación del proveedor. A la derecha se presenta la muestra de una etiqueta modificada de acuerdo con la HCS, que indica los elementos obligatorios. La etiqueta puede contener también información suplementaria según sea necesario.

Para más información:

OSHA® Administración de Seguridad y Salud Ocupacional

(800) 321-OSHA (6742)
www.osha.gov

ETIQUETA DE MUESTRA

CÓDIGO _____
Nombre del producto _____
} Identificación del producto

Nombre de la empresa _____
Dirección _____
Ciudad _____ Estado ____
Código postal _____ País ____
Número de teléfono de emergencia _____
} Identificación del proveedor

Pictogramas de peligro

Palabra de advertencia
Peligro

Mantener el contenedor herméticamente cerrado.
Guardar en un lugar fresco, bien ventilado y cerrado bajo llave.
Mantener alejado de fuentes de calor, chispas o llama abierta. No fumar.
Usar sólo con herramientas que no generen chispas.
Usar equipo eléctrico a prueba de explosiones.
Tomar medidas de precaución contra descargas estáticas.
Fijar y conectar a tierra el equipo contenedor y receptor.
No respirar los vapores.
Usar guantes protectores.
Abstenerse de comer, beber o fumar cuando se usa este producto.
Lavarse muy bien las manos después de manejar este producto.
Desechar el producto según las especificaciones y los reglamentos locales, regionales, nacionales e internacionales.

Consejos de prudencia

Líquido y vapores muy inflamables.
Puede provocar daños al hígado y a los riñones.
} Indicaciones de peligro

En caso de incendio: usar un extintor de polvo químico (tipo BC) o de bióxido de carbono (CO_2).

Primeros auxilios
Si hay exposición a este producto, llamar al Centro de Control de Intoxicaciones.
En caso de contacto con la piel o el cabello: quitarse de inmediato toda la ropa contaminada. Lavarse la piel con agua.

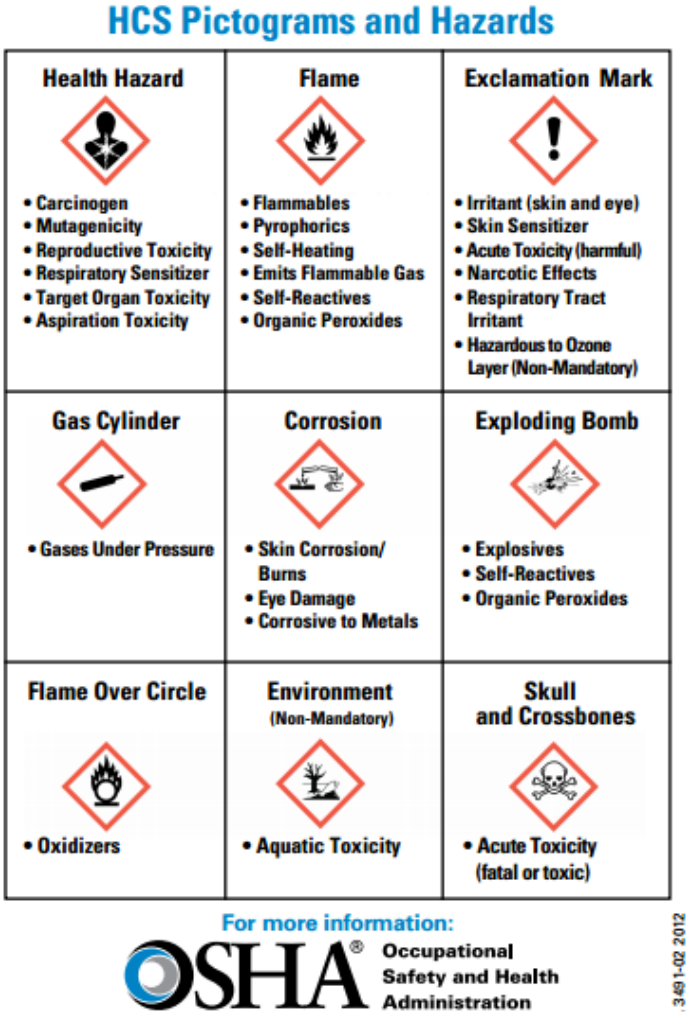
Información suplementaria

Instrucciones de uso
_____
_____
_____

Peso lleno: _____ Número de lote: _____
Peso bruto: _____ Fecha de llenado: _____
Fecha de caducidad: _____

Appendix 3 – Pictogram Quick Card – English

- OSHA's Pictogram Brief can be found here: https://www.osha.gov/Publications/OSHA3636.pdf
- The original pdf can be found at: https://www.osha.gov/Publications/OSHA3491QuickCardPictogram.pdf



Appendix 4 – Pictogram Quick Card – Spanish

- The original pdf can be found at: https://www.osha.gov/Publications/OSHA3491QuickCardPictogram.pdf

Appendix 5 – Safety Data Sheet Quick Card – English

- The Hazard Communication Safety Data Sheet can be found at: https://www.osha.gov/Publications/OSHA3493QuickCardSafetyDataSheet.pdf

Appendix 6 – Safety Data Sheet Quick Card – Spanish

- The Hazard Communication Safety Data Sheet can be found at: https://www.osha.gov/Publications/OSHA3518HCSsafety-data-sheets-quickcard-spanish.pdf

Appendix 7 – Safety Data Sheet Brief

- The Safety Data Sheet Brief pdf can be found at: https://www.osha.gov/Publications/OSHA3514.pdf

Appendix A – Health Hazard Criteria

- Information regarding the Health Hazard Criteria can be found at: https://www.osha.gov/dsg/hazcom/appendix_a.pdf

Appendix B – Physical Hazard Criteria

- The entire Physical Hazard Criteria pdf can be found here: https://www.osha.gov/dsg/hazcom/appendix_b.pdf

Appendix C – Allocation of Label Elements

- The pdf for Allocation of Label Elements can be found at: https://www.osha.gov/dsg/hazcom/appendix_c.pdf

Appendix D – Safety Data Sheets

- More information regarding Safety Data Sheets can be found at: https://www.osha.gov/dsg/hazcom/appendix_d.pdf

Appendix E – Definition of "Trade Secret"

Appendix E to §1910.1200 - Definition of "Trade Secret" (Mandatory)

- The following is a reprint of the "Restatement of Torts" section 757, comment b (1939):
- "Definition of trade secret."
  - A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it. It may be a formula for a chemical compound, a process of manufacturing, treating or preserving materials, a pattern for a machine or other device, or a list of customers. It differs from other secret information in a business (see s759 of the Restatement of Torts which is not included in this Appendix) in that it is not simply information as to single or ephemeral events in the conduct of the business, as, for example, the amount or other terms of a secret bid for a contract or the salary of certain employees, or the security investments made or contemplated, or the date fixed for the announcement of a new policy or for bringing out a new model or the like.
  - A trade secret is a process or device for continuous use in the operations of the business. Generally it relates to the production of goods, as, for example, a machine or formula for the production of an article. It may, however, relate to the sale of goods or to other operations in the business, such as a code for determining discounts, rebates or other concessions in a price list or catalogue, or a list of specialized customers, or a method of bookkeeping or other office management.
- "Secrecy."
  - The subject matter of a trade secret must be secret. Matters of public knowledge or of general knowledge in an industry cannot be appropriated by one as his secret. Matters which are completely disclosed by the goods which one markets cannot be his secret. Substantially, a trade secret is known only in the particular business in which it is used.

    - It is not requisite that only the proprietor of the business know it. He may, without losing his protection, communicate it to employees involved in its use. He may likewise communicate it to others pledged to secrecy. Others may also know of it independently, as, for example, when they have discovered the process or formula by independent invention and are keeping it secret. Nevertheless, a substantial element of secrecy must exist, so that, except by the use of improper means, there would be difficulty in acquiring the information.
    - An exact definition of a trade secret is not possible. Some factors to be considered in determining whether given information is one's trade secret are:
        1. The extent to which the information is known outside of his business;
        2. The extent to which it is known by employees and others involved in his business;
        3. The extent of measures taken by him to guard the secrecy of the information;
        4. The value of the information to him and his competitors;
        5. The amount of effort or money expended by him in developing the information;
        6. The ease or difficulty with which the information could be properly acquired or duplicated by others.
- "Novelty and prior art."
    - A trade secret may be a device or process which is patentable; but it need not be that. It may be a device or process which is clearly anticipated in the prior art or one which is merely a mechanical improvement that a good mechanic can make.
    - Novelty and invention are not requisite for a trade secret as they are for patentability. These requirements are essential to patentability because a patent protects against unlicensed use of the patented device or process even by one who discovers it properly through independent research. The patent monopoly is a reward to the inventor. But such is not the case with a trade secret. Its protection is not based on a policy of rewarding or otherwise encouraging the development of secret processes or devices. The protection is merely against breach of faith and reprehensible means of learning another's secret.
    - For this limited protection it is not appropriate to require also the kind of novelty and invention which is a requisite of patentability. The nature of the secret is, however, an important factor in determining the kind of relief that is appropriate against one who is subject to liability under the rule stated in this Section. Thus, if the secret consists of a device or process which is a novel invention, one who acquires the secret wrongfully is ordinarily enjoined from further use of it and is required to account for the profits derived from his past use.
    - If, on the other hand, the secret consists of mechanical improvements that a good mechanic can make without resort to the secret, the wrongdoer's liability may be limited to damages, and an injunction against future use of the improvements made with the aid of the secret may be inappropriate.
- The original pdf may be found here: https://www.osha.gov/dsg/hazcom/appendix_e.pdf

Appendix F – Guidance for Hazard Classifications (re: Carcinogenicity)

- Appendix F may be found at: https://www.osha.gov/dsg/hazcom/appendix_f.pdf

Date:

Approved (signature and date):

Supervisor _____

Director of Physical Plant _____

AVP for Facilities _____

Vice President for Fiscal Affairs If needed_____

Copy:

All supervisors _____

Related crafts _____

Department Heads _____ _____

VP's _____ _____

President _____