Hazard Communication
Hazard communication is also known as the right to know standard.

The purpose of the standard is to ensure that employers provide information to the employee on hazardous substances they may be working with or may be exposed to.

In 2016 OSHA implemented the Global Harmonized System or GHS.
This system allows the end user to find the information they need faster and allows for easier understanding of the hazards for a substance.

Seven major elements in the GHS-aligned Hazard Communication Standard:

- GHS terms
- Pictograms
- Precautionary statements
- Signal words
- Training
- SDS
- Labels
- DANGER WARNING

Example GHS terms:
- H301: Toxic if swallowed
- H331: Toxic if inhaled
- H311: Toxic in contact with skin
- P301+P330+P331: If swallowed: Rinse mouth. Do NOT induce vomiting.
How hazard communication works:

- Chemical Manufacturers and Importers classify the hazards of chemicals they produce or import, and prepare labels and safety data sheets based on the classifications.
- Employers must ensure:
  - All containers of hazardous chemicals are labeled
  - Safety data sheets are maintained for all hazardous chemicals
  - Workers are trained on program elements, hazards, protective measures, etc.

Chemicals are Shipped to Employers by Chemical Manufacturers, Importers or Distributors.

Implement the Program:

- All Employers receive labeled containers and safety data sheets with shipped chemicals.
- All Employers must prepare a written hazard communication program, including a list of the hazardous chemicals in the workplace.

Keep Information Up-to-Date.
Hazard Communication Program

- The main source of information comes from the Safety Data Sheet (SDS)

- These use to be called Material Safety Data Sheets

- The new SDS are divided into 16 sections and are now uniformed and easier to follow
Obtaining SDS’s at Upstate Medical University

Option #1 intranet:
1. Go to Upstate Medical University iPage
2. Click on Policies/Forms link
3. Click on Safety Data Sheet link on the left side of the page. You will get a “Will open new window” message. Click “OK”
4. Dolphin SDS page will open
5. In upper right, in “Find” you can type the name of the chemical or product and hit Enter

• Option #2
• Call the Environmental Health Office at 464-5782
Hazard Communication Program

SDS 16-section format:

• 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 control/personal protection
• Hazard Communication Program

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
Section 16: Other information

Not regulated by OSHA
Hazard Communication Program

Example of New Format SDS

NFPA 704 Placard & Ratings Voluntarily Provided
GHS System and Labels Down in Section 2

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Product XYZ
Synonyms:

SDS Number: 888100008809 Version: 1.1
Product Use Description: Fuel
Company:

Chemtrec (Emergency Contact): (800) 424-9300

SECTION 2. HAZARDS IDENTIFICATION

Classifications:
- Flammable Liquid – Category 1 or 2 depending on formulation.
- Aspiration Hazard – Category 1
- Carcinogenicity – Category 2
- Specific Target Organ Toxicity (Repeated Exposure) – Category 2
- Specific Target Organ Toxicity (Single Exposure) – Category 3
- Skin Irritation – Category 2
- Eye Irritation – Category 2B
- Chronic Aquatic Toxicity – Category 2

Pictograms:

Signal Word: Danger
Labels: Standardized Form and Language

- HMIS & NFPA Diamonds (older labeling systems that are still widely used).
- Symbol – pictogram
- Standard hazard statement
- Signal Word
  - Danger (more significant)
  - Warning
HMIS & NFPA Diamond

0 means almost no hazard
4 means extreme danger
- **Carcinogens** cause cancer.
- **Mutagens** cause harm to fetuses.
- **Reproductive toxins** cause problems in pregnancy and/or getting pregnant (men and women).
- **Respiratory Sensitizer** means you may have a heightened reaction on second exposure.
- **Target organ** is the organ that is most effected.
- **Aspiration toxic** means it irritates or harms when you inhale the liquid or solid.
• Flammable means vapors burn.
• Pyrophorics will ignite spontaneously when exposed to air.
• Organic peroxides can sometimes form explosive compounds by themselves.
• Self igniters/heaters get warm over time with access to air.
- **Irritants** irritate.
- **Sensitizers** cause more severe second-exposure reactions.
- **Acute** – short term
- **Chronic** – long term
Gas under pressure can release pressure quickly – causing mechanical hazards and releasing large volumes of gas that can displace air (suffocation potential) or be toxic.
Corrosion

- Skin Corrosion/Burns
- Eye Damage
- Corrosive to Metals
Exploding Bomb

- Explosives
- Self-Reactives
- Organic Peroxides
Oxidizers can cause or contribute to fire in other materials.
Environment
(Non-Mandatory)

• Aquatic Toxicity
Skull and Crossbones

- Acute Toxicity (fatal or toxic)
Signal Words

“Danger” or “Warning”

Used to emphasize hazard and discriminate between levels of hazard.
<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Signal Word</th>
<th>Hazard Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple Asphyxiate</td>
<td>Warning</td>
<td>May displace oxygen and cause rapid suffocation.</td>
</tr>
<tr>
<td>Flammable Liquid</td>
<td>Danger</td>
<td>Flammable Liquid and Vapor. Harmful if inhaled.</td>
</tr>
</tbody>
</table>
Standard Hazard Statement

- GHS label should include appropriate precautionary information.

- The intent is to harmonize and update precautionary statements.
Precautionary Statements
Keep container tightly closed. Store in 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 measure 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.

In Case of Fire:
use dry chemical (BC) or Carbon dioxide (CO2) fire extinguisher to extinguish.

First Aid
If exposed call Poison Center.
If on skin (on hair): Take off immediately any contaminated clothing.
Rinse skin with water.
Exposure to hazardous drugs can potentially happen anywhere in a Health Care setting. SUNY Upstate Medical University (“SUNY Upstate”) has put into place a variety of administrative, engineering and work practice controls to reduce the risk of exposure to hazardous drugs.

I understand and acknowledge the following:

• I may be exposed to hazardous drugs regardless of whether or not my work assignment is clinical or nonclinical.
• Working with or near hazardous drugs in health care settings may increase one's risk of various illnesses and conditions including, but not limited to: skin rashes, infertility, miscarriage, birth defects and various forms of cancer.
• SUNY Upstate maintains up to date, detailed policies and procedures on the proper storage, handling, transport and disposal of hazardous drugs. As an employee, I have access to review these policies and procedures.
• I may be required, depending on my role and as determined by my supervisor, to review SUNY Upstate’s policies and procedures regarding the handling of hazardous drugs, to undergo specialized annual training and to demonstrate my competency to handle hazardous drugs prior to handling any hazardous drugs and at least every 12 months thereafter.
• I will contact Pharmacy or my direct supervisor if I have any questions or concerns regarding hazardous drugs at SUNY Upstate.
• My failure to follow established policies and procedures of SUNY Upstate may put me, my co-workers, patients and the community at risk of exposure to hazardous substances which may lead to various illnesses and conditions.
Who Should I Contact with Questions?

- If you have a question you should first contact your supervisor.

- If your question has not been answered or you would like additional information you can contact Upstate Medical University, Environmental Health and Safety (EHS) at 464–5782.