



Hazard Communication

Hazard Communication and Global Harmonized System

- 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

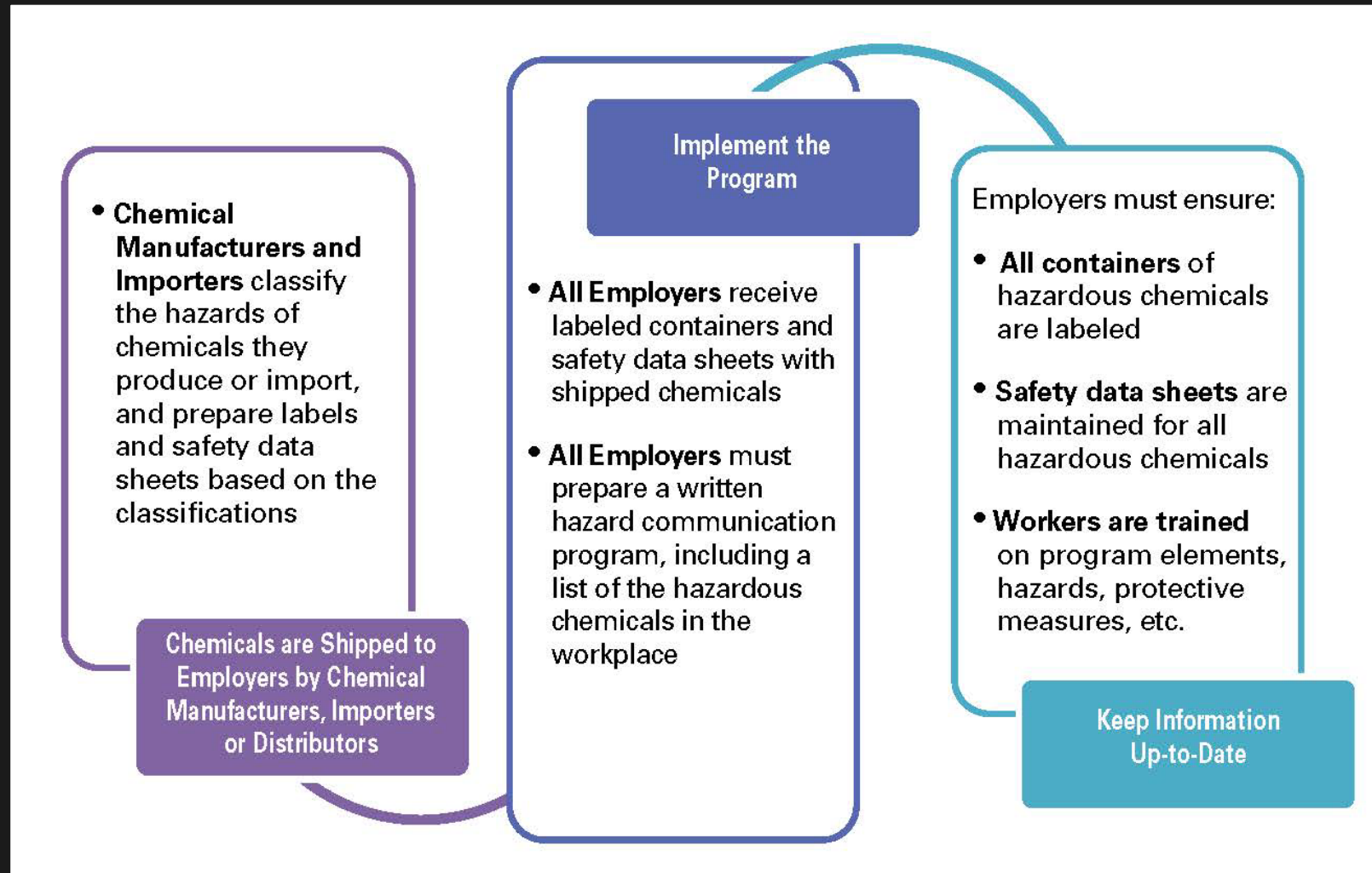
Hazard Communication and Global Harmonized System

- 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



How hazard communication works:



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: Flammability 3, Health 1, Reactivity 0, Specific Hazard

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



Name of Material

<input type="checkbox"/>	HEALTH
<input type="checkbox"/>	FLAMMABILITY
<input type="checkbox"/>	REACTIVITY
<input type="checkbox"/>	PROTECTIVE EQUIPMENT

GHS Pictogram



Explosive



Flammables



Oxidizers



Carcinogen



Acute Toxicity



Corrosive



Irritant



Aquatic Toxicity



Gases Under Pressure

Health Hazard



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

- **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.

Flame



- **Flammables**
- **Pyrophorics**
- **Self-Heating**
- **Emits Flammable Gas**
- **Self-Reactives**
- **Organic Peroxides**

- **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.

Exclamation Mark



- **Irritant (skin and eye)**
- **Skin Sensitizer**
- **Acute Toxicity (harmful)**
- **Narcotic Effects**
- **Respiratory Tract Irritant**
- **Hazardous to Ozone Layer (Non-Mandatory)**

- Irritants irritate.
- Sensitizers cause more severe second-exposure reactions.
- Acute – short term
- Chronic – long term

Gas Cylinder



- **Gases Under Pressure**

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**

Flame Over Circle



- **Oxidizers**

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.

New Hazards Added (No pictogram)

Hazard Category	Signal Word	Hazard Statement
Simple Asphyxiate	Warning	May displace oxygen and cause rapid suffocation.

Hazard Category	Signal Word	Hazard Statement
Flammable Liquid	Danger	Flammable Liquid and Vapor. Harmful if inhaled.

Standard Hazard Statement

- ➔ GHS label should include appropriate precautionary information.
- ➔ • The intent is to harmonize and update precautionary statements.

Sample Label

Product Identifier

CODE _____

Product Name _____

Supplier Identification

Company Name _____

Street Address _____

City _____ State _____ Postal _____

Code _____ Country _____

Emergency Phone Number _____

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.

Hazard Pictograms



Signal Word

Danger

Hazard Statement

Highly flammable liquid and vapor.

May cause liver and kidney damage.

Supplemental Information

Directions for use

Fill weight: _____ Lot Number: _____

Gross weight: _____ Fill Date: _____

Expiration Date: _____

Hazardous Drug Risk Acknowledgement

(You will be asked to complete this acknowledgement within the post test for this training module.)

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.