What You Don’t Know
As a healthcare worker, you know the power of chemicals. They make your job easier, more effective—and they help save lives.

Yet it takes just a moment of carelessness, ignorance or poor judgment to turn one of these powerful tools into a destructive weapon.

Because when it comes to chemicals, what you don't know can hurt you—and fast.

That’s why the Hazard Communication Standard, developed by the Occupational Safety and Health Administration (OSHA) is so important. It guarantees your “Right-To-Know” about potential chemical hazards in your workplace.

Your employer has developed a Hazard Communication Program based on OSHA’s Hazard Communication Standard. It will help you learn about the hazardous chemicals you may be exposed to on the job and steps you and your employer can take for your safety and protection.

Knowing The Risks
A chemical can be a physical hazard, a health hazard or both.

- A physical hazard can cause a dangerous situation like a fire or an explosion.
- A health hazard can damage your health when a chemical is inhaled, eaten, or splashed on your skin or in your eyes.

Acute health hazards hurt you rapidly, after short-term exposure. Examples: poisoning and chemical burns.

Chronic health hazards harm you more slowly, after long-term exposure. Examples: cancer and heart damage.

No One Is Immune
You probably know that chemicals are used somewhere in your facility, such as the laboratory. But here are some facts you may not know:

- Hazardous chemicals are used throughout healthcare facilities, even in nursing units. For example, powerful anti-cancer drugs can actually cause cancer and other serious health problems in nurses and pharmacists who mix them and in housekeeping staff who clean up spills and remove waste.
- Chemicals aren’t just liquids in containers. Your Hazard Communication Program covers chemicals in all forms—solids, liquids, gases, vapors, fumes and mists. If it is a hazard and you can be exposed to it, it will be covered in the Hazard Communication Program. Here are some examples:
  - Anesthetic gases can cause headaches, nausea, decreased mental alertness, impaired motor coordination, birth defects, miscarriages and cancer.
  - Ethylene oxide, a gas used to sterilize hospital equipment, can damage skin, respiratory and nervous systems, and cause sterility, birth defects and cancer.
  - Oxygen, used in operating and recover rooms, may be piped throughout some hospitals, making other materials highly flammable.
Products like disinfectants and grease cutters seem harmless, but they're solvents that can damage skin and eyes.

Some chemicals used in healthcare facilities can cause reproductive damage, including birth defects, infertility, impotence and miscarriage.

- Reproductive hazards can affect both men and women.
- Reproductive hazards may possibly be caused by ethylene oxide, fluorinated hydrocarbons, anti-cancer drugs, mercury, nitrous oxide, formaldehyde and various ingredients in cleaning solutions.
- If you are pregnant or plan to be, understand that your unborn baby may be particularly vulnerable.

Your HAZCOM Program
You can find out how to work safely with the hazardous chemicals in your workplace by reading your employer’s written Hazard Communication Program. It includes:

- A list of all hazardous chemicals present in your facility, including those in unlabeled pipes.
- Information about how your employer will provide warning labels, Material Safety Data Sheets (MSDSs) and information and training for employees who work with hazardous chemicals on a routine basis.
- The names and numbers of those who are responsible for seeing that the program is carried out in your facility.

Your HAZCOM Program
A warning label is designed to alert you that a chemical is dangerous. It will show:

- The product’s name

- Any hazardous ingredients
- Hazard warnings
- The chemical manufacturer’s name and address.

By law, every chemical shipped into your facility must have a warning label attached to it by its producer. After that, your employer is responsible for seeing that containers stay labeled. This includes:

- Replacing any damaged, incomplete or missing labels
- Seeing that the new container is labeled when a chemical is transferred to another container.

Label Requirements
Labels are not required:

- If a number of stationary containers in an area hold chemicals with similar hazards. Your employer can post warning signs instead of labeling each container.
- On pipes that contain chemicals—even if they contain hazardous chemicals or gases
- When you transfer a chemical from labeled container to a portable one. The portable container does not have to be labeled if you plan to use that chemical immediately yourself.

Never leave an unmarked container of hazardous chemical unattended.

Unlabeled Container?
Never assume its contents are harmless. Some facilities even require containers of water to be labeled. Follow your facility labeling procedures to the letter.
MSDS: Your Next Step
For detailed information about the hazards of chemicals and how to control them, check out the chemical’s Material Safety Data Sheet (MSDS). Even though a chemical’s identity can be withheld if it is a trade secret, the manufacturer must provide full information on the chemical’s hazards and how to control them.

- Chemical suppliers must provide an MSDS on every hazardous chemical they ship into your workplace.
- Your employer ensures that the MSDS for every chemical you work with is available to you in your work area during working hours.
- To see the MSDS for a chemical you work with, just ask your supervisor.

MSDSs all contain similar vital information on a number of key points, including:
- The name of the chemical on the product container, its chemical name and any common names, such as “formalin” for formaldehyde
- The manufacturer name, address, phone number, plus an emergency phone number you can use to get immediate information on specific chemical hazards
- Any hazardous ingredients of a chemical
- Safe exposure limits, such as Permissible Exposure Limits (PELs) and Threshold Limit Values (TLVs)
- Physical information to help you identify the chemical and its characteristics, such as appearance, odor, boiling point, vapor pressure, vapor density, solubility in water, melting point and evaporation rate.

MSDS: Continued
Fire and explosion information:
- The chemical flash point, or temperature at which it ignites
- What to put on the fire to extinguish it safely
- Special firefighting techniques and equipment
- Any unusual fire or explosion hazards.
- Health hazards caused by the chemical itself
- Symptoms of overexposure, both acute and chronic
- Medical conditions that may be aggravated by exposure
- How the chemical can enter your body
- Whether the chemical can cause cancer
- First-aid and emergency procedures—sometimes listed separately at the beginning of the form for quick reference.

Dangers from chemical reactions with the material:
- Conditions or other materials that can cause reactions with chemicals you are using
- Any dangerous substances that can be produced in reaction with the other chemicals or in atmospheric change.

How to deal with spills and leaks:
- Clean-up techniques
- Personal protective equipment to be used during clean-up
- How to dispose of waste materials properly

Always notify your supervisor of a chemical spill immediately. And make sure you are trained and wearing appropriate protective gear before you attempt clean-up.

- Additional special precautions to follow when handling the chemical may include:
- What you need to clean up a spill or extinguish a fire
- Other health and safety information.
More MSDS Tips

• Get to know the MSDSs for the chemicals you work with now—before the problem occurs.
• Two MSDSs for the same chemical? Use the MSDS with the most complete information.
• Check the date of the last revision to find out how correct the MSDS information is.

Training: Off To A Safe Start
Another important source of information on hazardous chemicals is your employer’s training program. You will be trained before working with chemicals and whenever the hazards change. You will learn:
• How to understand your facility’s written Hazard Communication Program
• How to read and use warning labels and MSDSs.

It will also cover:
• How to detect the release of hazardous chemicals
• The specific hazards you face from chemicals you may be exposed to on the job
• How to protect yourself on the job through the use of personal protective equipment and safe work practices.

It’s Up To You
Your “Right-To-Know” does no good unless you exercise it. Be sure to read all warning labels and check out the MSDSs for the chemicals you work with. Then put that knowledge to work for you on the job by wearing appropriate personal protective equipment and following safety procedures carefully.

When it comes to working with chemicals, it’s what you know that counts.
QUIZ

1. True False The Hazard Communication Standard gives you a right to know about hazardous chemicals in your workplace.

2. True False A chemical's harmful effects can accumulate slowly over an extended period of time.

3. True False In a healthcare facility, hazardous chemicals are primarily used in the laboratory or pharmacy.

4. True False Oxygen piped into operating and recovery rooms is a hazardous chemical.

5. True False Reproductive hazards affect only women.

6. True False You can find out which hazardous chemicals are used in your workplace by consulting your employer's Hazard Communication Program.

7. True False All pipes that carry hazardous materials must have proper warning labels.

8. True False You can assume the contents of an unlabeled container are harmless if there is no chemical odor.

9. True False To obtain MSDSs for chemicals in your workplace, you must go to the personnel department.

10. True False The MSDS gives detailed information about a material's hazards and how to control them.

11. True False To get immediate information on a specific chemical hazard, you can call the manufacturer's phone number listed in your employer's written Hazard Communication Program.

12. True False All MSDS forms contain the same information in the same order.

13. True False Chemical manufacturers can withhold data about a chemical's hazards on the MSDS if the information is a trade secret.

14. True False First-aid and emergency information is sometimes listed at the beginning of MSDS, where you can find it fast.

15. True False The MSDS tells how to clean up spills and leaks.

16. True False You may need special personal protective equipment to work with some chemicals.

17. True False MSDS information is sometimes updated.

18. True False The best time to become familiar with a chemical's MSDS is when a crisis occurs.

19. True False You will receive additional training whenever you work with chemicals that could present new hazards.

20. True False Creating a safe workplace is entirely your employer's responsibility.

ACKNOWLEDGEMENT OF TRAINING

I have read and understand the training handbook, Hazard Communication. I have also completed and passed the comprehensive quiz at the conclusion of this handbook.

Employee’s Signature ___________________________ Date __________

Trainer’s Name ___________________________ Date __________

NOTE: This record may be included in the employee’s personnel or training file.
HAZARD COMMUNICATION
Answers to Quiz

1. True.
2. True.
3. False. They are used throughout healthcare facilities.
4. True.
5. False. Women and men can be affected.
6. True.
7. False. Pipes do not have to be labeled, even if they contain hazardous materials.
8. False. Never assume the contents of an unlabeled container are harmless.
9. False. They are available right in your work area.
10. True.
11. False. The manufacturer’s emergency phone number is listed on the chemical’s MSDS.
12. False. All MSDSs are required to include certain information, but some forms have additional information in different formats.
13. False. Manufacturers cannot withhold hazard information, but may withhold chemical identity if it is a trade secret.
14. True.
15. True.
16. True.
17. True.
18. False. Read the MSDS before a problem arises.
19. True.
20. False. You and your employer must work together to create a safe workplace.