



Hazardous Communications and Chemicals

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 that 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 recovery 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 (MSDS) and information and training for employees who work with hazardous chemicals on a routine or non-routine basis.
- The names and numbers of those who are responsible for seeing that the program is carried out in your facility.

Labels Protect You

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

- The product's chemical 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:

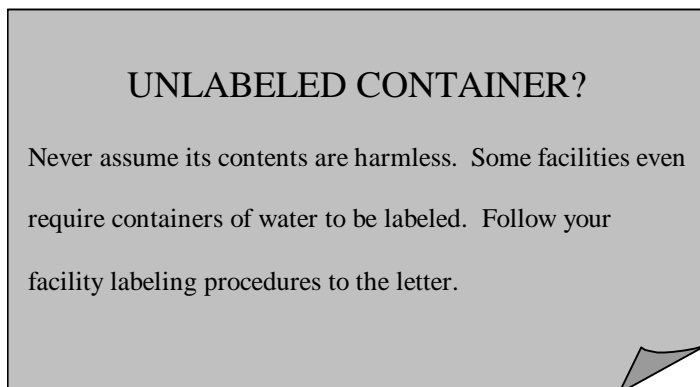
- Replacing any damaged, incomplete or missing labels
- Seeing that the new container is labeled when a chemical is transferred to another container.

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 a 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 a hazardous chemical unattended.



MSDS: Your Next Step

For detailed information about the hazards of a chemical 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 your 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.

MSDS 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 (PEL) and Threshold Limit Values (TLV)
- 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.
- 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 cause cancer
- First-aid 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 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 material 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.

- Special protection information on the MSDS includes any personal protective equipment you'll need to work safely with the chemical.
- 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
- Get to know the MSDS for the chemicals you work with now—before the problem occurs
- Two MSDS 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 MSDS

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 MSDS 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.

