

YCPARMIA Safety Journal

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Chemical Power

What you need to know

When you work with hazardous chemicals, knowledge really is power. The more you know about the chemicals you work with, the safer you'll be. The first place to look for information about a chemical is right on the container. Label formats differ, but they all contain similar information, including:

- ⇒ **Chemical identity**
- ⇒ **Name and address of the manufacturer or importer**
- ⇒ **Physical hazards**
- ⇒ **Health hazards**

Labels may also include storing and handling instructions, recommended PPE, and safety procedures for working with the chemical. But since this information is not required, you may not find it on all containers.

The second place to get the information you need about hazardous substances is the chemical's material safety data sheet (MSDS). These also vary in length or format but they all provide basically the same information.

- ⇒ **Product information**—name of manufacturer/importer, name of chemical, emergency phone number
- ⇒ **Chemical ingredients**
- ⇒ **Exposure limits**—PEL (Permissible Exposure Limit), STEL (Short-Term Exposure Limit), and TLV (Threshold Limit Value)
- ⇒ **Physical properties**—appearance and odor under normal conditions, boiling point, vapor pressure and density, evaporation rate, etc.
- ⇒ **Health hazards**—routes of exposure into the body, symptoms of exposure
- ⇒ **Fire and explosion data**
- ⇒ **Reactivity information**—substances and situations that could cause dangerous reactions
- ⇒ **Safe handling precautions**
- ⇒ **Exposure control**—engineering controls, PPE, and hygiene
- ⇒ **How to handle leaks and spills**
- ⇒ **First aid**

If you haven't read the label and MSDS, you're not ready to handle a hazardous chemical. Even after reading the label and MSDS, you might still have questions. Don't hesitate to ask your supervisor to explain anything you don't understand.

SIX STEPS TO CHEMICAL SAFETY

Follow this process to help keep you safe when working with hazardous substances:

- 1: Get the right information.** Read the container label and the MSDS before you use any chemical.
- 2: Follow instructions.** Do what the MSDS, label, and workplace rules tell you to do. Don't take shortcuts or ignore precautions. Store and handle chemicals according to procedures.
- 3: Wear appropriate PPE.** Gloves, goggles, coveralls, respirators, and other PPE are your best defense against chemical hazards. Wear what you need for the substance you use. If you have questions, ask your supervisor.
- 4: Practice safe hygiene.** Keep food, drinks, cigarettes, cosmetics, purses, bags, and street clothes out of work areas where chemicals are used or stored. Wash your hands and face after working with chemicals.
- 5: Know how to respond to spills.** Report all spills and leaks right away. Only attempt to clean up the spills you are trained, authorized, and equipped to handle.
- 6: Be prepared for an emergency.** If you are exposed to a hazardous chemical, act immediately. Get proper first aid and medical follow-up, as necessary.

Path to Electrical Safety

Keep alert to anything that could hurt

When you think of electrical hazards, do you picture high-voltage power lines and transformer boxes? While these items can certainly be dangerous, the truth is that the threat of electrocution is present almost anywhere at any time. Why? Because electricity is used in every workplace and home.

*Take the case of a worker who was drilling holes in 2 by 4 supports. The **drill bit needed sharpening**, but to save time he just pushed harder. He felt **the drill getting hot**, but he still didn't stop. He **grabbed a metal water pipe** for support as he **pushed even harder on the drill**. At that point electrical current surged from the drill up the worker's arm, across his heart, and through the other arm. Fortunately for this guy, a co-worker knew CPR and was able to resuscitate him. Otherwise, he would have died. **Fatalities are common when leaking current finds a path through a grounded worker.***

You probably would have stopped working when the drill started getting hot. And you certainly would have known not to grab a metal pipe while working with electrical equipment. But what about other electrical hazards?

Before you start any job that involves using electrical equipment, make sure you've identified and controlled all the potential hazards. And while you work, keep alert to anything that could hurt!



Safety Starts with You

How you can make your workplace safer

June is **National Safety Month**, which means we'll be putting an extra emphasis on safety this month. But don't forget that maintaining a safe workplace is a year-round job—something we have to work hard to achieve every day of every month. Here are 12 steps you can take this month and all 12 months of the year to promote safety on the job:

- 1. Learn about all the potential hazards** in your work and work area.
- 2. Make sure you understand** safety rules and procedures, and follow them.
- 3. Ask questions** about anything safety-related you don't understand.
- 4. Keep your mind on your work** and pay attention to everything you do.
- 5. Wear required personal protective equipment.**
- 6. Report safety hazards** you spot anywhere in the facility.
- 7. Watch out for your co-workers** and help keep them safe, too.
- 8. Think before you act;** when in doubt, find out!
- 9. Report accidents,** near misses, and other safety-related incidents so that corrective action can be taken.
- 10. Participate in safety training,** safety meetings, safety committees, and other safety-related activities.
- 11. Cooperate in accident investigations** so that causes can be found and further accidents prevented.
- 12. Remember that safety is never "somebody else's job."**

NO SLIPS, NO FALLS

Here are some tips for avoiding slips and falls from the U.S. Department of Energy's Lawrence Berkeley Laboratories:

- **Watch out for spills on the floor.** Even small quantities of water, coffee, food, grease, oil, soap, or other slippery stuff can cause a slip and fall.
- **Wipe your shoes on a mat** when you come inside—especially in rainy weather. This prevents wet or dirty soles from contributing to a slip and, perhaps, a fall. Wiping your feet will also help keep the floors clean and dry so others don't slip.
- **Use handrails** on stairwells.
- **Wear sensible shoes** with nonslip soles.
- **Walk in designated areas.** Don't take shortcuts.

Moving Chemicals

How to do so safely

Here are the hazards to be aware of when you transport hazardous chemicals:

- Broken pallets, which could collapse
- Pallet too high off the ground, which could cause it to tip forward and allow containers to fall
- Unsafe placement of chemical containers, which could fall during transport
- Failure to secure containers, which could cause them to fall, get damaged, and release chemicals
- Missing or damaged labels, which means hazards may not be identifiable
- Failure to follow safe handling instructions, which could cause a leak
- Handler not wearing proper personal protective equipment (PPE), which could cause an injury in an accident
- Obstructed vision of handler, which could cause a collision

Prevent accidents by following these safe practices:

- Use pallets that are in good condition.
- Always secure containers before moving them.
- Report missing or damaged container labels.
- Always follow handling directions on container labels and in material safety data sheets (MSDSs).
- Wear required PPE.
- Make sure vision is not obstructed when moving containers.

Back Pain Relief

What to do for an aching back

Back injuries affect millions of Americans every year. In fact, workers lose an average of 7 workdays a year because of back injuries. If you ever experience a sudden, extreme pain in your back when you're at work, don't move. Ask a co-worker to notify your supervisor right away, and wait for medical help. Some back injuries can be very serious.

Much back pain, however, can be relieved with home remedies, such as:

- **Cold packs**, which can be applied for 15 to 20 minutes for the first 24 to 48 hours after the injury to reduce inflammation.
- **Heating pads**, which can be used for symptoms after 48 hours. Remember, first cold, then heat for back pain.
- **Over-the-counter pain relievers**, which can be used for a few days until symptoms subside.

The other essential treatment for back pain is rest to give it time to heal.

- Use a firm mattress and neck pillow.
- Put a pillow between your bent knees if you lie on your side.
- Put a pillow under your knees if you lie on your back.
- Get up and move around a little every half hour.

NOTE: If symptoms persist beyond a few days, see your doctor.

NEATNESS COUNTS

Take time each day to inspect work areas:

- ⇒ Is your work area free of clutter, scrap, or excess materials?
- ⇒ Are aisles and walkways clear of obstructions?

Do your part to maintain a well-kept work- place by picking up and organizing your work area daily. Report unsafe conditions you can't put right yourself.

Take pride in the role you play creating a safe and orderly workplace!

DON'T IGNORE FIRE ALARMS

Fire experts say that too many people ignore fire alarms, a fact that contributes to needless injuries and deaths. The National Fire Protection Association warns that many people have a false sense of security so that when they hear an alarm, they think they're safest where they are—which is usually not the case.

What's more, fire experts say that even when people do respond to a fire alarm, many wait to evacuate because they think it's foolish to react immediately.

A survey by the National Research Council of Canada finds that most people underestimate the risk of fire, its potential to grow and spread, and how fast it can turn deadly.

Don't be one of the misguided. Be one of the safe. When you hear the fire alarm— even if you think it's just a drill—respond immediately. Follow emergency procedures and evacuate the building by the nearest emergency door.



Reducing Cancer Risk

Think disease prevention

Although many cancers still don't have a cure, experts say that a number of simple lifestyle changes can significantly reduce your risk of getting the disease:

- ✓ **Maintain a healthy weight.** Both men and women who are significantly overweight are more likely to develop cancer.
- ✓ **Reduce total fat intake.** Saturated and unsaturated fats have been linked to cancer.
- ✓ **Increase fiber intake.** Replacing high-fat foods with high-fiber foods can decrease your risk.
- ✓ **Include sources of vitamins A and C in your diet.** Sources include leafy greens and yellow-orange vegetables and fruits.
- ✓ **Include vitamin E in your diet** from whole-grain cereal, nuts, and beans.
- ✓ **Eat more cruciferous vegetables.** Cabbage, Brussels sprouts, and cauliflower are in this category.
- ✓ **Reduce intake of salt-cured, smoked, and nitrate-cured foods.** Eat foods like ham, bacon, and sausage only in moderation.
- ✓ **Reduce alcohol consumption.** Moderation again is the key.
- ✓ **Use sunscreen to help prevent skin cancer.** FYI, June is **Cancer from the Sun Month**.

For more information, check the American Cancer Society at www.cancer.org.

CANCER RATES CONTINUE TO DROP

A new report finds that Americans' risk of dying from cancer continues to drop, a trend that began over a decade ago. The report finds that death rates have decreased for 11 of the 15 most common cancers in men and for 10 of the 15 most common cancers in women.

The bad news is that the rate of new cancers has remained stable. This means that although you're less likely to die from cancer today, your risk of getting cancer is about the same. The study says the drop in cancer deaths is most likely due to earlier detection through screening, more effective treatments, and a decrease in the number of Americans who smoke.

Machine FAQs

Work safely with machines

Here are answers to the most frequently asked questions about machine safety:

Q. What do I do if I see a piece of equipment with a missing or damaged machine guard?

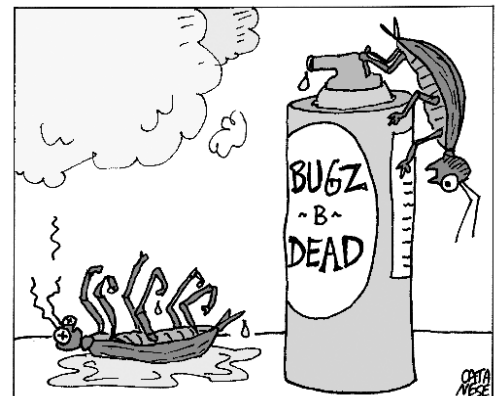
A. Never operate a piece of machinery if a guard is missing, not in position, or not operating properly. Tell co-workers not to use the equipment and place a "DO NOT USE" sign next to the machine's ON switch. Report the problem to your supervisor.

Q. Is there ever a good reason to remove a machine guard?

A. Never remove a guard unless you are specifically trained and authorized to do so to perform repairs, maintenance, or adjustments. When you do remove guards, shut off and lock out power to the machine to prevent unexpected start-ups. If you work on a machine after a lockout, make sure all guards have been replaced before resuming normal operations.

Q. What concerns should I have about safe dress when operating a machine?

A. ALWAYS wear appropriate PPE, such as eye protection. **NEVER wear loose clothing, watches, rings, or other jewelry** around mechanical equipment. These items are dangerous because they could get caught in moving parts.



“I’m reading the ingredients now... oh... not good, Dave, not good!”