

CPWR Hazard Alert Cards

Welding Fumes and Gases Hazard Alert



Welding produces metal fumes and gases that can make you sick. The welding process involves heat and light.

- The welding metal (stick)
- What the welder is welding
- Filler metals and electrodes
- Paints and other coatings on the metal
- Ventilation.

In confined spaces, welding fumes are especially dangerous. With proper ventilation, welding fumes can be much less dangerous.

These are some of the most common metals used in welding:

- **Stainless steel** (nickel) can cause cancer.
- **Nickel** can cause cancer.
- **Mild steel** (iron and manganese). Many

Solvents in Construction Hazard Alert



Solvents are liquids used to clean up. They are found in many construction materials.

- Dissolve greases, oils, and paints
- Thin or mix pigments, pesticides, and epoxy resins.

Solvents are in adhesives, carpet glues, sealants, lacquers, and primers. They're used to clean tools and equipment.

Examples of solvents are acetone, benzene, epichlorohydrin, esters, glycol ethers, heptane, hexane, kerosene, methanol, methylene chloride, naphtha, toluene, trichloroethylene, chloroform, turpentine, and xylene.

The Hazards

You can be exposed to solvents if you breathe them, get them on your skin, or swallow them.

- **Breathe them.** This can happen when you use glue or paint — or spray or brush them. Solvents evaporate fast.

- **Get them on your skin.** Many solvents can get through your skin. For some, the danger is as bad as if you breathe them.
- **Swallow them.** Solvents get into your mouth, stomach, and brain.

Safe Work in Trenches Hazard Alert



Most trenches are dug to lay pipe or place footings. It is easy to try to work fast in a trench and get out without taking safety steps. **Don't.** Each year, more than 40 construction workers are killed in trenches.

The Hazards

A trench is a *confined space* with many special problems. **Most deaths in trenches are from cave-ins.** Other risks are falls, electrocution, being struck by falling objects (or a backhoe), and bad air. Bad air can hurt your breathing, help cause a fire, or poison you. **Many workers die trying to rescue other workers.**

Protect Yourself

OSHA says your contractor must train you about the hazards and how to protect yourself.

If a trench will be dug, the contractor must name a competent person. (OSHA says a competent person knows the OSHA excavation standard,* is trained in soil analysis and protective systems, can identify hazards, and has authority to stop them right away.)

OSHA has special rules to protect workers in trenches. You must follow the OSHA rules unless:

- The trench is in stable rock, or
- The trench is less than 5 feet deep and a

Eye Injuries in Construction Hazard Alert



Each year, more than 10,600 eye injuries each occur in construction. Construction has a higher rate of eye injuries than any other industry.

Construction Noise Hazard Alert



Construction workers lose a lot of their hearing. You lose hearing slowly, so you may not notice it. But if you can't hear, you may be in danger on the job.

It doesn't just hurt your hearing. You can get **tinnitus**, a ringing sound in your ears. Loud noise can make you tired and stressed. It can raise your blood pressure and cause you heart disease.

Exposure Levels

Noise levels are measured in **decibels (dBA)**. Levels above 70 dBA are dangerous. At about 70 decibels, decibels are measured on a scale like the one for sound. So when the decibels go up a little, noise goes up a lot. 73 decibels is as loud as 70. OSHA has rules about noise. You may be exposed to a noise level,

and cut wire, sawing, grinding, and grit. So does sand. Chemicals can get in your eyes. If you are not wearing eye protection, you could go blind.

Use safety glasses with side shields.

Use a brush for sandblasting.

Use a mask for sandblasting.

Asbestos in Construction Hazard Alert



Asbestos can hurt your lungs and many uses for it have been banned. But this mineral is still used in construction, mainly in roof panels and packing gaskets. And construction workers still are exposed to asbestos during demolition, roofing, vinyl flooring, pipe roads and cement. Thousands of workers are exposed to asbestos without proper protection. Asbestos is often expected to cause diseases because of its fibrous nature. Asbestos diseases can show up 25% of...

Lead in Construction Hazard Alert



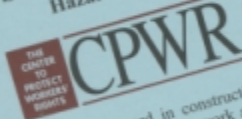
Old paint on metal bridges, process equipment and buildings may contain lead. Construction workers are exposed to lead when metal structures are repainted. Lead paint is cut, or blasted with sandblasting. Anyone near a lead-painted surface can swallow it. It can cause reproductive problems, and nervous system damage.

Back Injuries Hazard Alert



Construction workers are back the highest rate of back injuries. About 1 in 100 construction workers usually miss more than a week of work because of a low-back injury.

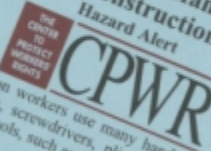
Heat Stress in Construction Hazard Alert



Heat is a serious hazard in construction. Your body builds up heat when you work and sweats may not cool off fast enough. This can happen if you are up on a roof pouring hot asphalt or you are lifting heavy loads. Too much heat can make you tired, hurt your job performance, and increase your chance of injury. You can get skin rash. You can also get:

- **Dehydration.** When your body loses water, you can't cool off fast enough. You feel thirsty and weak.
- **Cramps.** You can get muscle cramps from the heat even after you leave work.
- **Heat exhaustion.** You feel tired, nauseous, headachy, and giddy (dizzy and silly). Your skin is damp and can look muddy or flushed. You may faint.

Choosing Safer Hand Tools in Construction Hazard Alert



Construction workers use many hand tools, such as hammers, screwdrivers, pliers, and tin snips, plus power tools, such as electric drills and screwguns.

The Hazards

If you use hand tools over and over every day, you may injure your hand, wrist, or arm. You can be injured if you must hold on tight for a long time or twisting the handle, for instance. You can get tunnel syndrome, trigger finger, white finger, and other painful problems. These problems may force you to quit construction work.

Protect Yourself

Choose safer hand tools. Then, you can use them safely.

HAND TOOL:

Choose a hand tool that requires less force to use it. It should be balanced and does not tip over.

Choose a hand tool that fits your hand — not your arm.

Biological Hazards in Sewage and Wastewater Hazard Alert



During construction and maintenance of water plants, workers may be killed by collapse, falls, confined spaces, and or hydrogen sulfide gas. The most common cause of death is hydrogen sulfide gas. Sewage and wastewater contain many other hazards and viruses that can be transmitted. If you are working in these areas, you must follow these instructions. If you are working in these areas, you must follow these instructions. If you are working in these areas, you must follow these instructions.

Ladder Safety Hazard Alert



Each year, about 10 construction workers are killed by falls from ladders. More than half of these deaths are preventable. Falls from ladders are the leading cause of death in construction. Falls from ladders are the leading cause of death in construction. Falls from ladders are the leading cause of death in construction.

Electric Safety in Construction For Non-Electricians Hazard Alert



CPWR

About 140 construction workers are killed by electricity every year; more than 90 of them are not electricians. Most of the electrocutions - of laborers, carpenters, painters, and others - are from contact with overhead power lines. Other causes include contact with power tools that have bad wiring, metal objects touching live (energized) wiring, and live electric wiring, equipment, or machinery. Workers are killed even by household current.

Before You Work

Make sure you are trained in electric safety. OSHA says your employer must train you in "recognition, avoidance and prevention of unsafe conditions."

• **Before outdoor work begins**, your employer should call utility companies to find underground power lines and to turn off or insulate (if possible) any overhead power lines near your work. If overhead lines cannot be turned off or insulated, there should be warning cones or lines or other barriers to prevent equipment from getting too close. Unless you know an overhead power line is turned off, stay at least 10 feet away - more than

Fall-Protection Harnesses Hazard Alert



More than 300 construction workers every year are killed by falls from the job. Falls from unprotected roof edges, roof and floor openings, scaffolds, structural steel, leading edges, open holes, and more.

Protect Yourself

If fall protection is needed, make sure you have the right protection system. Know how it works, get it inspected, and use it. Use safety nets when you work on roofs. Use fall protection systems, or work positioning systems, or fall arrest systems. You will need a fall arrest system to use one of these systems.

• **Before you work**, you must be trained in the use of the system. If you fall, a fall arrest system will stop your fall. A fall arrest system will stop your fall. A fall arrest system will stop your fall.

Scaffold Safety Hazard Alert



Each year, about 10 construction workers are killed by falls from scaffolds. Falls from scaffolds are the leading cause of death in construction. Falls from scaffolds are the leading cause of death in construction.

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