



## GOALS

This safety session teaches employees:

- How to prevent chemical injuries to their eyes; *and*
- How to respond quickly with appropriate first aid that could save their vision.

**Applicable Regulations: 29 CFR 1910.132, .133**



### 1. If you work with chemicals in liquid, fume, aerosol, mist, or droplet form, your eyes may be at risk of injury.

- Corrosive chemicals, including acids and bases, can cause immediate tissue damage and scarring.
- Hot molten metal or hot liquids can splash into the eyes, causing burns.
- Some mists can irritate the eyes because they are corrosive (for example, sulfuric acid mists) or because they are allergens or sensitizers (for example, cleaning products in spray or aerosol form).
- Some toxic or biohazardous agents can enter the body through the eyes (for example, bloodborne pathogens).

### 2. You can protect your eyes against chemical injury by wearing appropriate eye protection. This may mean:

- Goggles with indirect ventilation (eyecup or cover type) to protect the eyes and immediate area of the face around the eyes. They provide a secure shield around the entire eye and guard against hazards coming from any direction.
- A face shield worn over spectacles or goggles.
- A full-face piece respirator.
- Most types of protective eyewear can either be worn over prescription glasses or contact lenses or they can have corrective lenses placed in them.

### 3. Your protective eyewear should be marked to indicate the kind of protection it provides.

- The American National Standards Institute (ANSI) Z87.1 standard specifies markings for protective eyewear.
- Eyewear that has met performance tests demonstrating that it is protective against splashes and droplets will be marked "D3."
- Eyewear that is protective against chemical exposures may or may not be protective against impact. You can tell whether your eyewear will also protect against impact by checking its ANSI marking: ANSI Z87 eyewear does not provide impact protection, but eyewear labeled ANSI Z87+ does provide impact protection.

### 4. Remember that face shields are secondary protection.

- If you are exposed to hazards that could impact your entire face, you may be required to wear a face shield.
- Face shields are considered secondary protection. They must be worn over primary protection—your protective eyewear (glasses or goggles).



## 5. Take proper care of your protective eyewear.

- Clean lenses after every use with soap or mild detergent and water or special solution designed for that purpose. To prevent scratching, do not clean lenses dry.
- Disinfect eyewear if it is contaminated with hazardous chemicals or if it may be worn by another person.
- Store clean eyewear in a closed container protected from dust, moisture, or damage.

## 6. Know what to do if chemicals get in your eye—or in a coworker's eye:

- ACT QUICKLY! To prevent eye damage, every second counts. If there are chemicals in your eye, move to the eyewash station. If your coworker is affected, help lead him or her to the nearest eyewash.
- Locate your closest eyewash station in advance. If you work with chemicals that could pose a hazard to your eyes, your closest eyewash station should be within 10 seconds' walking distance from the location of the hazard and should be on the same level (with no stairs or ramps to navigate). Know how to get there without being able to see where you're going.
- Find out how your eyewash station works in advance. Remember, if there's something in your eyes, you need to be able to operate the eyewash by touch. Once you activate the eyewash, it should stay on for at least 15 minutes, freeing your hands so that you can hold your eyes open.
- Hold your eyelids open and roll your eyes so that water can completely flush the eye. You can also assist a coworker by holding his or her eyes open.
- Flush the eyes for at least 15 minutes.
- Call for immediate medical assistance. A professional—not the person whose eyes were affected—should make the determination of whether any additional treatment is needed.
- Check the safety data sheet (SDS) for any special instructions regarding injury to the eyes.



### DISCUSSION POINTS:

- Discuss the specific eye hazards that are present in your workplace and how workers' protective eyewear was chosen to protect against those hazards.
- Discuss specific care and storage methods that apply to workers' eyewear.



### CONCLUSION:

More than 6,000 worker eye injuries are reported each year that result from exposure to harmful substances or environments. Give them the tools and understanding to protect their vision by telling them how their eye protection was chosen, how it works, and what to do if the unexpected does happen.



### TEST YOUR KNOWLEDGE:

Have your employees take the Chemical Eye Safety Using ANSI Z87.1 quiz. By testing their knowledge, you can judge their understanding of chemical eye hazards and training requirements and whether they need to review this important topic again soon.