Spot The Safety Violation: Drinking Water Isn’t the Best Eyewash Solution

Is regular bottled water what workers should use to wash out their eyes’

Workers can get injured on the job if dust, particles, chemicals, etc. get into their eyes. In that event, the first step is usually to flush the worker’s eyes out to remove the foreign objects or substances. But workers shouldn’t just use whatever fluid is lying around to clean out their eyes.

This picture from the US Naval Safety Center shows a wall-mounted eyewash station. These stations are usually stocked with bottles of sterile isotonic solution, which workers can use to safely wash their eyes and relieve irritation, stinging and itching by removing foreign material, air pollutants (such as pollen) and other irritants.

But this station contains what appears to be a standard bottle of drinking water. Although plain old water may clean a foreign substance from a worker’s eyes, it may also introduce bacteria or other harmful elements and result in an eye infection. That’s why the OHS laws often require eyewash stations to be filled with a specified flushing fluid or the pre-packaged fluid provided by the station’s manufacturer.

So if you have a similar eyewash station in your workplace, ensure that it contains the appropriate eyewash solution’and that you have additional bottles of the solution on hand so that workers don’t substitute bottles of drinking water when the station runs out.

How to Protect Workers’ Eyes

To keep workers’ eyes safe and healthy, provide workers with appropriate eye protection to prevent substances from getting into their eyes in the first place. Such protection can range from safety glasses and googles to full face shields, depending on the nature of the specific hazards. (Here’s a model eye and face protection policy you can adapt for your workplace.)

You may also want to have an eyewash station available in the workplace in the event that workers get something in their eyes despite eye protection. There are other kinds of eyewash stations in addition to the wall-mounted bottle variety depicted in this picture. For example, some workplaces have eyewash stations that resemble water fountains. If you have such an eyewash station, implement these best practices:

1. **Keep the doors open.** Don’t place an emergency eyewash station behind a closed or locked door. Although the station may be used infrequently, remember that when it’s needed, someone’s vision is on the line’and every second counts.
2. **Don’t hang the station at an angle.** Doing so can interfere with the proper flow of flushing fluid and may force an injured person to stand in an uncomfortable position to flush their eyes properly.
3. **Don’t block access.** Avoid storing anything underneath, around or in front of an eyewash station, which can block an injured worker’s ability to reach or stand comfortably at the station.
4. **Watch the fluid’s temperature.** Don’t allow the flushing

fluid to become too hot or too cold. Storing flushing fluid in extremely hot or cold environments can cause its temperature to rise or fall outside of standards for tepid water. And flushing eyes with scalding or ice-cold solution can cause further damage to an already compromised eye.

5. **Fill the station properly.** Avoid mistakes when mixing flushing fluid. Always prepare this fluid according to the manufacturer's instructions. And don't substitute regular, unsterile water for the eyewash solution.
6. **Clean thoroughly after use.** Don't forget to clean, disinfect, rinse and completely dry the station after each activation, including its hoses, nozzles and nozzle covers (but not the sealed-fluid cartridges). Any lingering cleaning chemicals or particles may harm the next user's eyes. When the wrong chemicals mix, the fluid may turn brown or another color and colored fluid should be used.
7. **Don't cover the station.** Don't place a plastic bag or other makeshift cover over the station to keep out dust or particles, which can hinder an injured person's ability to properly activate the unit in a single motion and start the flow in one second or less.
8. **Mind the shelf life.** Avoid using expired flushing fluid. Like any standing water, eyewash fluid can grow bacteria that may be harmful to eyes. Be sure that someone's responsible for checking expiration dates and refilling/replacing expired fluid according to the manufacturer's guidelines, such as every two to three years for sealed-fluid cartridges and bottles. In addition, plumbed stations should generally be flushed weekly and tank-style fluid stations every three to six months.
9. **Install the station correctly.** Don't install an eyewash station without carefully following the manufacturer's instructions. Stations vary and have precise installation instructions to ensure proper performance,

including installation height, the rate of fluid flow, required spray pattern and much more.

10. **Don’t alter or tamper with the station.** Again, the manufacturer’s instructions are the only ones that should be followed. Don’t try to re-route hoses, change nozzles or otherwise compromise the station’s performance.