

## Emergency Eyewash Station Use and Care

Your employees and their students could be working with caustic or corrosive materials very frequently in the classroom, especially in the sciences and particularly in chemistry, physics and biology courses. Even though you already require the use of primary eye-protecting devices, such as safety goggles, it's still important to ensure that employees and students are prepared. It takes just one splash from a corrosive or caustic material and lack of an emergency response system to cause permanent blindness.

It is easy to see that the cost of adhering to the Occupational Safety and Health Administration's (OSHA) emergency eyewash regulations is far less than the potential cost of losing an employee and paying workers' compensation benefits for years or the cost of a lawsuit if a student gets seriously injured in the classroom due to negligence or disregard for government regulation.

### Do You Need Eyewash Stations?

According to OSHA, any facility where employees' or students' eyes could be exposed to harmful corrosive or caustic material is required to have suitable facilities for quick-drenching or flushing of the eyes. The standard specifies that these facilities must be within the same area and available for immediate emergency use. This applies to all facilities that fit the criteria regardless of size, whether they are public or private, number of employees or number of students.

A good way to determine whether you need to have an eyewash station at your educational facility is by examining the first aid information on any chemicals your employees and students work with, which can be found

either on the label or on the Safety Data Sheet (SDS). If these instructions indicate that exposure of the substance to the eyes would require 15 minutes or more of flushing, you need an eyewash station. There is no OSHA threshold for quantity of corrosive material that triggers the requirement of an eyewash station – rather, the determining factor is the possible exposure of a person to injury.

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**You already require employees and their students to use primary eye protection such as safety goggles, but accidents can still happen. Without adequate emergency eyewash stations, one splash from a caustic material can cause permanent blindness.**

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However, beyond requiring "suitable facilities," this standard is rather vague. Thus, the American National Standards Institute (ANSI) has publicized an emergency eyewash standard that further outlines what kinds of facilities are considered OSHA-compliant. OSHA specifically emphasizes that any equipment in compliance with ANSI requirements would meet the intent of the OSHA standard.

### Eyewash Station Basics

The following is a list of stipulations and requirements

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outlined by ANSI standard Z385.1, which is intended as a guideline for proper design, installation, use and maintenance of eyewash equipment.

- Eyewash stations must be within a 10-second walk of wherever the hazard is, and it cannot be up or down stairs. This means that depending on the size of your facility, number of classrooms and number of lab stations within classrooms, you might need more than one eyewash station.
- If teachers or students are working with exceptionally strong or dangerous materials where the consequences of a spill would be particularly harmful, the eyewash station should be installed immediately adjacent to the hazard.
- An injured person must be able to turn eyewash on and start water flow in no more than one second.
- Device must be able to be operated hands-free if necessary so the injured teacher or student can use it while also holding his or her eye(s) open.
- Eyewash must deliver a continuous flow at a rate of 0.4 gallons per minute for a minimum of 15 minutes.
- The water temperature delivered by the eyewash should be “tepid,” or in other words, lukewarm. However, investigate the types of chemicals employees and students are working with and identify any that may have an accelerated reaction with warm water. In that case, consult a medical professional about the optimal temperature of the eyewash station.
- Employees and students must be appropriately trained in not only the location of the eyewash, but on its proper use. It is not enough to simply install the equipment, as teachers and students may not know how or when to use it when an emergency actually arises.
- Perform regular maintenance on eyewash equipment. For compliance with the standard, it

should be inspected at least annually and also activated weekly to ensure proper operation.

## Care for Plumbed Eyewash Stations

Both portable and plumbed eyewash stations are acceptable to satisfy the OSHA standard. The only type of eyewash that is not adequate is a wall-mounted plastic eye flushing bottle, as it does not supply a 15-minute, continuous water flow.

Though plumbed eyewashes are acceptable, they require a bit more care to ensure they serve their function in the event of an emergency. They do have advantages, such as the unlimited water supply, durability and ability to also include an emergency shower in the case of full-body chemical exposure. However, if they are not properly maintained, they could do more harm than good. Since tap water is the source, failure to properly maintain these types of stations could cause buildup from pipes or standing water to be the rinsing agent. This could present a dangerous situation when working with highly reactive and volatile substances.

Because of these dangers, it is not enough to simply have an eyewash station on site. It is important—and vital to your employees’ and their students’ health—to clean the bowl and nozzles regularly, check the water pressure and run the water weekly to prevent pipe buildup. It is also a good idea to keep copies of these cleaning records to assure an OSHA inspector of your good faith efforts to comply. When a safety standard is vague—like the emergency eyewash standard—it is in [C\_Officialname]’s best interest to do everything possible to guarantee compliance.

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Do you have additional questions? If so, we’re here to help. Our team of property and casualty professionals has a host of compliance resources available to support your facility and employee safety initiatives. Please contact BCG Advisors, Inc. at 201-435-4500 for further assistance.