



## Eyewash Stations: When Seconds Count

You are struggling to open a bottle of industrial cleaner with a stuck lid. The seal suddenly releases, and cleaner sprays out and splashes your face. Your eyes burn; you can't see. You have seconds to flush your eyes before permanent damage occurs. You grope for the eyewash station, which offers immediate relief and should be only a few steps away.

But what if the eyewash station wasn't there?

Businesses don't intend to put employees at risk; however, many don't realize the critical role eyewash stations play in a health and safety program. The fountains protect employees who handle hazardous substances from suffering serious or permanent damage if the material gets in their eyes, as material safety data sheets (MSDS) indicate.

The Industrial Regulations under the Occupational Health and Safety Act require:

***124. Where a worker is exposed to a potential hazard of injury to the eye due to contact with a biological or chemical substance, an eyewash fountain shall be provided. R.R.O. 1990, Reg. 851, s. 124.***

OSSA has been hearing from workplaces that MOL Inspectors are increasingly diligent in looking at this regulation and writing orders for eyewash fountains. Businesses are asking, "Is this a new requirement?" Others are observing, "I've been using eyewash bottles for years and it has never been pointed out these were not sufficient."

No, the new emphasis on eyewash fountains do not reflect a change in legislation. Rather, the MOL is heightening its focus on a critical issue and reviewing the measures that will afford workers the protection they need. Currently, there is no Canadian standard or specific legislation for the design or placement of eyewash stations or emergency showers. The standard that is widely accepted and referred to is the American National Standards Institute (ANSI) Standard Z358.1-2004 "Emergency Eyewash and Shower Equipment."

The ANSI standard makes these key points in the event of a chemical splash in the face:

- The first line of defense should be appropriate eye protection enforced by the employer;
- Seconds count: the worker needs to reach the flush station within 10 seconds, as time is critical to minimizing permanent damage;
- Often both eyes will be affected when a chemical splash occurs;
- The normal reaction is to tightly close both eyes; therefore, workers must free their hands so they can hold both eyes open while flushing;
- The flushing should generally be continuous for 15 minutes: the amount of time is stipulated on the MSDS for each hazardous material.

Portable eyewash bottles do not meet these requirements because:

- They typically contain about 1 litre of fluid and therefore cannot maintain a continuous flush of the eyes for 15 minutes;
- They cannot effectively flush both eyes at the same time;



- They require the person to squeeze with one hand—unless someone else is available to assist, which can't be counted on—which means both hands are not available to hold the eyes open.

Businesses have had a false sense of security about portable eyewash bottles. The MOL is reinforcing that bottles are, in fact, not an adequate solution to provide an emergency response.

Now is the time to review your situation and select one of three best options to keep your employees healthy and safe:

- Plumbing in an eyewash fountain is usually the simplest and least expensive way to go (however, a lack of cold and hot water supply in the vicinity can complicate things). Note that flushing the eyes with just cold water can be very uncomfortable.
- Look for portable eyewash systems that maintain a continuous flow of sterile saline or distilled water at room temperature, and are foot operated. These systems require regular maintenance and the solution needs to be replaced regularly.
- Substituting the hazardous chemical product with one that doesn't present a risk to the eyes eliminates the need for an eyewash station.

A more comprehensive review of the design requirements for eyewash stations is available from the Canadian Centre of Occupational Health and Safety at [http://www.ccohs.ca/oshanswers/safety\\_haz/emerg\\_showers.html](http://www.ccohs.ca/oshanswers/safety_haz/emerg_showers.html). For advice and specific assistance for your business, call the OSSA Client Services Line at 1-888-478-6772.