

Emergency Washing Equipment

Potential hazard:

Accidental exposure of the eyes to hazardous, irritating or corrosive substances in any form can result in irritation, temporary or permanent vision impairment, or blindness.

How to control the hazard:

Engineering controls, administrative controls and personal eye protection that minimize the possibility of eye exposure to hazardous, irritating or corrosive substances are the best ways to protect against eye injury in the workplace.

However, engineering controls, administrative controls and personal eye protection **are not enough**. Emergency eyewash equipment **must** be available at any workplace where there is a risk of eye injury from exposure to hazardous, irritating or corrosive substances.

Emergency eyewash equipment must meet the requirements identified in ANSI Standard Z358.1, *American National Standard for Emergency Eyewash and Shower Equipment*.

ANSI-approved emergency eyewash equipment is designed to function quickly and effectively under a set of typical circumstances. When a person's eyes are accidentally exposed to a hazardous, irritating or corrosive substance, the following is likely to occur:

- a degree of panic may set in, and the person will not always think or react in a clear fashion
- vision is immediately impaired, so that the person cannot clearly see where they are going or what they are doing
- assistance may not be immediately available.

Regardless of the situation or circumstance, emergency treatment must be available immediately. Every second lost could lead to permanent damage. Proper emergency eyewash equipment could save someone's eyesight.

Eyewash equipment requirements:

- If the flushing fluid is water, the water in the eyewash station shall be potable (drinkable), and kept at a tepid temperature between 15.56–37.78 C (60–100 F) with the use of a mixing valve. A medical advisor should be consulted for optimum temperature for each application.
- A controlled flow of water must be provided to both eyes simultaneously at a velocity low enough not to be injurious to the user.
- There shall be no sharp projections anywhere in the operating area of the unit.

(see next page)

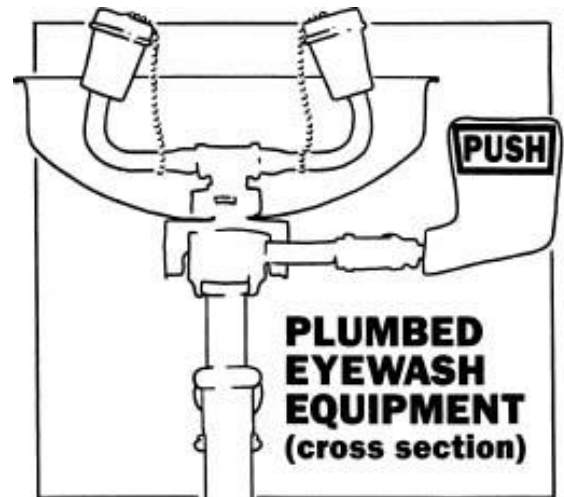
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- Nozzles shall be protected from airborne contaminants. The removal of such protection shall not require a separate motion by the operator when activating the unit.
- The control valve shall be:
 - capable of being quickly located and operated; and
 - **capable of being fully activated in one second or less** and designed to remain on until intentionally shut off.
- The eyewash unit shall be in an accessible location as close to the hazard as possible, and **require no greater than 10 seconds to reach**.
- The eyewash unit shall be identified with a highly visible sign. The area around or behind, or both, shall be painted a bright colour.
- Plumbed eyewash units shall be activated weekly to flush the line and verify proper operation. Self-contained units shall be inspected according to manufacturers' specification.
- All employees who may be exposed to eye injury shall be trained in the proper use of emergency eyewash units.
- Outdoor units shall be freeze protected.



Note: *Personal eyewash equipment, such as squeeze bottles, can support but not replace proper eyewash stations. The first few seconds following an eye injury are often critical to keeping injury to a minimum. A personal eyewash unit may be kept in the immediate vicinity of employees working in a potentially hazardous area. The main purpose of these units is to supply immediate flushing. With this accomplished, the injured individual should then proceed to a plumbed or self-contained eyewash and flush the eyes for the required 15-minute period. Safety Data Sheets (SDS) should be consulted for additional recommendations.*

Approved eyewash units may be part of eye-face wash and/or emergency shower units. Depending on the types of hazards present, these options may be preferable to single purpose eyewash units.

Reference to legal requirements under workplace safety and health legislation:

- Emergency Washing Facilities: Manitoba Regulation 217/2006 Part 21

American National Standards Institute (ANSI):

- ANSI Standard Z358.1, *American National Standard for Emergency Eyewash and Shower Equipment*

Additional workplace safety and health information available at safemanitoba.com, including:

- *Bulletin 154: Eye and Face Protection*
- *Eye Safety Checklist*

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