



**ANSI/ISEA**

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## American National Standard for Emergency Eyewash and Shower Equipment

**ANSI/ISEA Z358.1-2009**

Revision of

ANSI Z358.1-2004

**American National Standard for  
Emergency Eyewash and Shower Equipment**

Secretariat

**International Safety Equipment Association**

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**Foreword** (This Foreword is not part of American National Standard ANSI/ISEA Z358.1-2009)

This revision updates ANSI Z358.1-2004 and was prepared by the Emergency Eyewash and Shower Group of the International Safety Equipment Association, whose members are thoroughly knowledgeable in the design, installation, and use of this important safety equipment. Current members of the Group include: Acorn Safety, H.L. Bouton Co., Inc., Bradley Corporation, Encon Safety Products, FSI International, Guardian Equipment, Haws Corporation, Prevor, Inc., Speakman Company, Sperian Protection, and Therm-Omega-Tech.

Significant changes to the 2004 version of the standard are reflected in this document, including clarification of certification procedures to focus on delivery of flushing fluid patterns that will allow for freedom in designing compliant equipment and incorporation of certification language for self-contained eye/face washes. The criteria for personal washes have been expanded to ensure that they meet any applicable regulatory requirements. Additionally, illustrations have been updated to reflect design configurations that are known to meet the criteria in standard.

Suggestions for the improvement of this standard are welcome. They should be sent to the ISEA, 1901 N. Moore Street, Suite 808, Arlington, VA 22209 or [isea@safetyequipment.org](mailto:isea@safetyequipment.org).

This standard was processed and approved using consensus procedures prescribed by the American National Standards Institute. The following organizations were contacted prior to the approval of this standard. Inclusion in this list does not necessarily imply that the organization concurred with the submittal of the proposed standard to ANSI.

International Safety Equipment Association  
Advanced Chemical Safety  
Plumbing Manufacturers Institute  
Entergy Services Incorporated  
Erdman Company  
Intertek  
Otsego Memorial Hospital  
S.M. Stoller Company  
TAZ Vineyards

Safety Equipment Institute  
State of California Occupational Safety and Health Admin.  
Ron George Design and Consulting Services  
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State of Ohio Public Employment Risk Reduction Program  
Underwriters Laboratories

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## American National Standard for Emergency Eyewash and Shower Equipment

### 1. Scope

This standard establishes minimum performance and use requirements for eyewash and shower equipment for the emergency treatment of the eyes or body of a person who has been exposed to hazardous materials. It covers the following types of equipment: emergency showers, eyewashes, eye/face washes, and combination units.

This standard also includes performance and use requirements for personal wash units and drench hoses, which are considered supplemental to emergency eyewash and shower equipment.

### 2. Purpose

This standard is intended to provide uniform minimum requirements for the performance, use, installation, test procedures, maintenance and training of emergency eyewash and shower equipment.

### 3. Definitions

For the purpose of this standard, the following terms apply as defined:

**certified:** A system whereby a certification organization determines that a manufacturer has demonstrated the ability to produce a product that complies with the requirements of this standard, authorizes the manufacturer to use a label on listed products that comply with the requirements of this standard, and establishes a follow-up program conducted by the certification organization as a check on the methods the manufacturer uses to determine continued compliance of labeled and listed products with the requirements of this standard.

**certification organization:** An independent third party organization that determines product compliance with the requirements of this standard with a labeling/listing/follow-up program.

**combination unit:** An interconnected assembly of emergency equipment supplied by a single source of flushing fluid.

**drench hose:** A supplemental device consisting of a flexible hose connected to a flushing fluid supply and used to provide fluid to irrigate and flush face and body areas.

**emergency shower:** A device specifically designed and intended to deliver flushing fluid in sufficient volume to cause that fluid to cascade over the entire body.

**eye/face wash:** A device used to provide fluid to irrigate and flush both the face and the eyes simultaneously.

**eyewash:** A device used to provide fluid to irrigate and flush the eyes.

**flow pressure:** The pressure in the water supply pipe near the water outlet while the faucet or outlet is fully open and flowing.

**flushing fluid:** Potable water, preserved water, preserved buffered saline solution or other medically acceptable solution manufactured and labeled in accordance with applicable government regulations.

**flushing fluid column:** The dispersion pattern of flushing fluid which is created by an emergency shower and meets the standard's prescribed coverage requirements. This pattern can be achieved by a variety of design configurations.

**freeze protected equipment:** Equipment designed to allow the emergency device to operate under freezing conditions.

**freeze protection:** A means to protect flushing fluid in an apparatus from freezing and rendering it inoperable. This can be achieved through several means including mechanical valves and electrical heat tracing.

**hazardous material:** Any substance or compound that has the capability of producing