

Title:

Eye Protective Selection Is Important In The Workplace

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Summary:

Personal protective equipment for the eyes and face is designed to prevent or lessen the severity of injuries to workers. The employer must assess the workplace and determine if hazards that require the use of eye and/or face protection are present or are likely to be present before assigning a certain type of personal protective equipment to workers.

Keywords:

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Article Body:

Personal protective equipment for the eyes and face is designed to prevent or lessen the severity of injuries to workers. The employer must assess the workplace and determine if hazards that require the use of eye and/or face protection are present or are likely to be present before assigning a certain type of personal protective equipment to workers.

A hazard assessment should determine the risk of exposure to eye and face hazards, including those which may be encountered in an emergency. Employers should be aware of the possibility of multiple and simultaneous hazard exposures and be prepared to protect against the highest level of each hazard.

Hazards can fall into five categories:

Impact (Flying objects such as large chips, fragments, particles, sand, and dirt. Produced by chipping, grinding, machining, masonry work, wood working, sawing, drilling, chiseling, powered fastening, riveting, and sanding.)

Heat (Anything emitting extreme heat. Produced by furnace operations, pouring, casting, hot dipping, and welding.)

Chemicals (Splash, fumes, vapors, and irritating mists. Produced by acid and chemical handling, degreasing, plating, and working with blood.)

Dust (Harmful Dust. Produced by woodworking, buffing, and general dusty conditions.)

Optical Radiation (Radiant energy, glare, and intense light Produced by welding, torch-cutting, brazing, soldering, and laser work.)

The majority of impact injuries result from flying or falling objects, or sparks striking the eye. Most of these objects are smaller than a pin head and can cause serious injury such as punctures, abrasions, and contusions.

While working in a hazardous area where the worker is exposed to flying objects, fragments, and particles, primary protective devices such as safety spectacles with side shields or goggles must be worn. Secondary protective devices such as face shields are required in conjunction with primary protective devices during severe exposure to impact hazards. Personal protective equipment examples are: Spectacles - Primary protectors intended to shield the eyes from a variety of impact hazards.

Goggles - Primary protectors intended to shield the eyes against flying fragments, objects, large chips, and particles.

Face Shields - Secondary protectors intended to protect the entire face against exposure to impact hazards.

Heat injuries may occur to the eye and face when workers are exposed to high temperatures, splashes of molten metal, or hot sparks. Protect your eyes from heat when workplace operations involve pouring, casting, hot dipping, furnace operations, and other similar activities. Burns to eye and face tissue are the main concern when working with heat hazards.

Working with heat hazards requires eye protection such as goggles or safety spectacles with special-purpose lenses and side shields. However, many heat hazard exposures require the use of a face shield in addition to safety spectacles or goggles. When selecting PPE, consider the source and intensity of the heat and the type of splashes that may occur in the workplace. Personal protective equipment examples are:

Spectacles - Primary protectors intended to shield the eyes from a variety of heat hazards.

Goggles - Primary protectors intended to shield the eyes against a variety of heat hazards.

Face Shields - Secondary protectors intended to shield the entire face against exposure to high temperatures, splash from molten metal, and hot sparks.

A large percentage of eye injuries are caused by direct contact with chemicals. These injuries often result from an inappropriate choice of personal protective equipment, that allows a chemical substance to enter from around or under protective eye equipment. Serious and irreversible damage can occur when

chemical substances contact the eyes in the form of splash, mists, vapors, or fumes. When working with or around chemicals, it is important to know the location of emergency eyewash stations and how to access them with restricted vision.

When fitted and worn correctly, goggles protect your eyes from hazardous substances. A face shield may be required in areas where workers are exposed to severe chemical hazards.

Goggles - Primary protectors intended to shield the eyes against liquid or chemical splash, irritating mists, vapors, and fumes.

Face Shields - Secondary protectors intended to protect the entire face against exposure to chemical hazards.

Dust is present in the workplace during operations such as woodworking and buffing. Working in a dusty environment can cause eye injuries and presents additional hazards to contact lens wearers.

Either eyecup or cover-type safety goggles should be worn when dust is present. Safety goggles are the only effective type of eye protection from nuisance dust because they create a protective seal around the eyes.

Goggles - Primary protectors intended to protect the eyes against a variety of airborne particles and harmful dust.

Laser work and similar operations create intense concentrations of heat, ultraviolet, infrared, and reflected light radiation. A laser beam, of sufficient power, can produce intensities greater than those experienced when looking directly at the sun. Unprotected laser exposure may result in eye injuries including retinal burns, cataracts, and permanent blindness. When lasers produce invisible ultraviolet, or other radiation, both employees and visitors should use appropriate eye protection at all times.

Determine the maximum power density, or intensity, lasers produce when workers are exposed to laser beams. Based on this knowledge, select lenses that protect against the maximum intensity. The selection of laser protection should depend upon the lasers in use and the operating conditions. Workers with exposure to laser beams must be furnished suitable laser protection.

When selecting filter lenses, begin with a shade too dark to see the welding zone. Then try lighter shades until one allows a sufficient view of the welding zone without going below the minimum protective shade.

Hazards should be addressed and appropriate measures be taken. In many cases hazards can compile, personal protective equipment must be selected to protect

all personnel in the workplace. Personal protective equipment should be viewed as a last resort when all other attempts at hazard control have failed.