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Every day, 2,000 workers in the U.S. suffer a job-related eye injury requiring medical treatment, with one-third of them requiring treatment in hospital emergency departments.With 2,000 job-related eye injuries occurring daily in the U.S., it's evident that proper eye protection is crucial in preventing these incidents. So, when exactly should employees be wearing safety glasses or eye protection? Here's what managers should be aware of. The Basic Rules of Eye ProtectionOSHA standard 1910.132 lays out an employers responsibility for providing eye and face protection. According to the standard, personal protective equipment (including eye protection) must be provided, used, and maintained in a sanitary condition wherever it is necessary for use.As with other forms of PPE, the employer must pay for and provide eye protection. The one exception is prescription safety glasses, though this only applies if you allow the employee to use the safety glasses outside of a work setting. The logic follows that if an employee essentially uses these as personal safety glasses in all contexts, they will carry the glasses with them between one job and the next, and in that case, it makes little sense for employers to pay.Either way, employers cannot require employees to pay for or provide their own PPE. They can, however, require employees to wear safety glasses or eye protection as a condition of work if that eye protection is necessary to do the job safely.When Are Employees Required to Wear Safety Glasses or Eye Protection?According to OSHA standard 1910.133 (Eye and face protection), employers are responsible for ensuring that employees use the appropriate eye and face protection against hazards such as:Flying particlesAcidsCaustic liquidsChemical gasesChemical vaporsMolten metalLiquid chemicalsLight radiationIn any scenario where the potential for an eye hazard exists, it is essential to don the appropriate eye protection. Failure to do so not only jeopardizes safety, but also signifies a neglect of the employer's duty to uphold OSHA safety standards.What Type of Protective Eyewear Do They Need?All eye and face protection must comply with the following consensus standards:ANSI/ISEA Z87.1-2010, Occupational and Educational Personal Eye and Face Protection DevicesANSI Z87.1-2003, Occupational and Educational Personal Eye and Face Protection DevicesANSI Z87.1-1989 (R-1998), Practice for Occupational and Educational Eye and Face ProtectionIn addition, under standard 1910.133(a)(5), the employer must ensure that each affected employee uses safety glasses with the appropriate shade filter for the task, based on the table contained in the standard. And regardless of type or filter, all safety glasses must include side protection from flying objects.Safety Beyond PPEEmployers must ensure that their employees wear safety glasses or eye protection whenever there is a potential hazard that could endanger their eyes. This responsibility falls on the employer to provide the necessary protective gear to keep their workers safe on the job.The great news is that understanding and fulfilling these safety obligations doesn't have to be a stressful task. Our compliance management software simplifies the process by consolidating all the relevant standards and regulations into one easy-to-navigate dashboard. With this tool, you can stay on top of your safety program and ensure that you are meeting all necessary requirements to protect your employees.Are you ready to prioritize safety without the added stress? Reach out to us today to discover how our software can streamline your safety compliance efforts and keep your workplace safe for everyone. There are many occupations in the United States that place employees in the presence of dangerous machinery or hazardous materials. Up until 1970, there were no safety standards that required companies to make sure that their employees were safe or that they were protected from health hazards. However, in 1970, Congress was confronted with a few troubling statistics.In a single year, there were 1400 worker deaths due to job-related accidents. There were nearly 2 and a half million workers disabled as a result of their occupation, and an estimated 300,000 cases of occupational disease. There were ten times as many days lost to job-related disabilities as strikes. Between the loss of production, medical expenses, and disability compensation, the nation was facing a crisis. Accordingly, Congress got to work addressing the issue.In 1979, the Occupational Safety and Health Act was passed by Congress to make sure that all employees were provided with safe and healthy working conditions, without fear of bodily harm or exposure to health hazards.The Occupational Safety and Health Administration (OSHA)was created to standardize safety requirements and regulate companies to make sure their employees were protected.Since it was formed, OSHA has reduced work-related fatalities by more than 50%. It has also reduced overall injury and illness rates. This organization has made safe working conditions a standard requirement that employees can expect at every job they have. It has also given them a way of taking recourse against a company if they fail to provide all of the equipment and other measures that are needed to maintain a safe workplace.OSHA is run through the Department of Labor. The Department of Labor regulates and enforces over 180 federal laws that cover the workplace premises and activities of an estimated 10 million employers and 125 million workers.The simple answer to this question is that employers are required to provide a workplace free of any known dangers. In practice, there arerules depending on the industryyour company falls under and what hazards might be associated with the type of work employees are doing. It also allows employees to:Receive information and training about workplace hazards, ways to keep themselves from getting hurt, and the overall OSHA standards their company is held to. The training also has to be in a language the employees can understand; Employees can observe testing to their workplace designed to find hazards, and they can view the results. Records of work-related injuries and illnesses have to be available for employee review. Employees are allowed to get copies of medical records pertaining to workplace injuries or illnesses. Employees can request that OSHA come in and inspect their place of work whenever they would like. Employees are allowed to utilize OSHA as a resource without fear of repercussions from the company.In spite of the fact that OSHA requires that a workplace be safe for employees, that doesnt mean that a workplace must be completely free of hazards. It means that the company must provide equipment and training to protect their employees from those hazards. A great example of this is safety glasses. An employer has to make sure that every employer who works around a potential eye or face hazard has proper protection. Specifically, if an employee is working around any of the following substances,they have to wear safety glasses:Flying particles Molten metal Liquid chemicals Acids or caustic liquids Chemical gases or vapors Potentially injurious light radiationEmployers cant simply hand out a pair of safety glasses to their employees at the door and hope for the best. There is a strict set of rules for selecting the face and eye protection that complies with OSHAs eye and face protection standard,29 CFR 1910.133. For starters, eye protection has to be customized based on the hazard that its meant to protect employees from. Safety glasses that will protect an employee from impact might not adequately protect them from harmful dust, for instance. All personal protective equipment (PPE) has to be certified by the American National Standards Institute and the manufacturer has to legibly mark it as certified.Employees have to be trained on all of the following topics when presented with their safety glasses:Why the face and eye protection is necessary How improper fit, use, or maintenance of their face and eye protection can compromise its effect What the safety glasses can and cannot protect against How to use safety glasses in an emergency How to inspect their safety glasses for damage, put them on, and remove them efficiently How to properly maintain and store their safety glasses What medical signs and symptoms they need to watch for if they will prevent effective use The general requirements of OSHAs eye and face protection standards. Additionally, employees who have to wear corrective lenses will need to either purchase prescription safety glasses or modify their own glasses to comply with PPE certified equipment, although typically its easier to order a pair of prescription safety glasses. That takes the guesswork out of the equation. Employers are also responsible for providing an effective storage method that maintains the safety glasses so they continue to provide protection.If you are looking for prescription safety glasses for your employees,RX Safetyhas all the options youll need to make sure that every employee is protected from workplace hazards. You can take a look at all of ourcertified prescription safety eyewear here! And if you have any questions or concerns, dont hesitate tocontact us, our experts would be happy to help. Guarding laborers from eye injuries remains essential in any perilous setting. The Occupational Safety and Health Administration (OSHA) enforces strict guidelines to ensure workplace safety, particularly emphasizing the importance of safety glasses. These protective devices play a crucial role in shielding workers from potential eye hazards.OSHA's Eyewear Protection GuidelinesOSHA regulations demand that protective eyewear, including safety glasses, be used in environments where there exists a risk of injury from flying objects, molten metal, chemical splashes, caustic substances, or light radiation. As stipulated by OSHA Eye and Face Protection Standards, all safety equipment must align with American National Standards Institute (ANSI) guidelines.Key Features in ANSI Standards for Safety GlassesImpact Resistance: Safety glasses should tolerate considerable force, resisting impacts effectively to prevent injuries.Comprehensive Coverage: Designs must ensure debris does not enter from the sides, offering all-around coverage for the eyes.Lens Clarity: Quality lenses are essential for maintaining visual clarity and minimizing eye strain during use.Varied Industry Needs and Hazard AssessmentsConducting thorough hazard assessments is necessary within different industries. Industries require customized protective eyewear based on the specific risks they face. For example, lab technicians and construction personnel may require different types of safety glasses due to differing risk exposure and environment conditions.Consequences of Non-ComplianceAdherence to OSHA standards concerning safety glasses is crucial in minimizing injury risks. Negligence can lead to substantial fines and legal consequences. Regular audits and workforce training can greatly aid in reinforcing safety practices and maintaining compliance.Focusing on Fit and CustomizationWhile protection is paramount, the comfort and fit of eyewear cannot be overlooked. Ergonomic design, adjustable options, and customization of safety glasses encourage persistent utilization among workers. Features such as unobstructed visibility and proper airflow further enhance the user experience.Preserving Visual HealthImplementing OSHA-recognized safety glasses safeguards employees' immediate and future visual health. Quality protective eyewear reduces the occurrence of workplace incidents that could lead to severe eye injuries or permanent blindness.Employers' ResponsibilitiesOrganizations are tasked with providing suitable training and ensuring the correct usage of protective equipment by their staff. Continuous updating of safety methodologies and equipment in line with the latest requirements is the responsibility of every employer.Given the diverse needs across industries, choosing appropriate safety glasses necessitates a thorough analysis of potential hazards in the workplace. For further guidance on OSHA's specific demands, visiting the OSHA Eye and Face Protection Standards page can offer insights and detailed requirements.Types of Safety Glasses and Their UsesSafety glasses are indispensable for workplace safety, reflecting the reality that over 2,000 eye injuries occur each day in professional environments, as highlighted by the National Institute for Occupational Safety and Health (NIOSH). These statistics underscore the essential nature of eye protection across various sectors.Polycarbonate Safety GlassesPolycarbonate lenses offer superior impact resistance, making these glasses optimal for areas with flying debris. Their lightweight construction allows for extended periods of comfortable wear. Construction workers and manufacturing staff benefit from glasses designed to protect during high-intensity tasks, as minimizing discomfort maximizes efficiency and safety.Prescription Safety GlassesWorkers requiring corrective lenses can select prescription safety glasses for clarity and safeguarding. By combining vision correction and protection, individuals in healthcare and industries demanding detailed work achieve enhanced functionality. Merging precision and security, prescription options suit environments where both are paramount for daily operations.Photochromic Safety GlassesThese lenses adjust to UV exposure, proving particularly useful for roles transitioning between indoor and outdoor settings. By reducing glare, photochromic safety glasses preserve focus and reduce strain, making them indispensable in dynamic environments involving varied lighting conditions.Anti-Fog Safety GlassesIn humid or high-temperature environments, preventing lens fogging becomes crucial for maintaining productivity and safety. Anti-fog treatments resolve visibility issues, ensuring clear sight for tasks requiring consistent attention across fluctuating climatic conditions. Consistent clarity enable employees to prioritize precision and safety in every task.OSHA Standards and Eye ProtectionThe Occupational Safety and Health Administration's (OSHA) regulations serve as a benchmark for personal protective equipment standards. Adherence to OSHA's 29 CFR 1910.133 is crucial for eye and face protection, particularly given the vast range of hazards present across industries. Employers must evaluate workplace specifics, from potential impacts and heat to chemicals and radiation exposure.Specialized ApplicationsLaser Safety Glasses: In fields like medicine and laboratory research, laser safety glasses protect against harmful radiation during precise applications, ensuring safety without compromising performance.Chemical Splash Goggles: Common in laboratory settings exposed to liquid splashes, these goggles provide sealed protection, safeguarding sensitive areas from hazardous exposures.Emphasizing SafetyDeliberate selection of appropriate safety glasses arises from understanding specific work hazards. Quality eye protection investments elevate employee confidence, mitigate injury risk, and uphold operational integrity. Decisions driven by prioritizing safety cultivate enhanced productivity and morale, benefitting a wide array of professional sectors.---Safety Glasses: Addressing Vital QueriesEnsuring the safety of personnel in various industries is dependent on comprehensive knowledge of safety protocols, including regulations set by the Occupational Safety and Health Administration (OSHA) regarding safety glasses. Compliance with these guidelines is pivotal for avoiding eye injuries in work environments laden with hazards. Presented here are answers to frequently asked questions about these stipulations.What is OSHA's mandate on safety glasses?OSHA obligates employers to furnish personal protective equipment (PPE), specifically safety glasses, when employees face potential eye injury risks at work. Specifically, OSHA standard 1910.133 outlines that employers must ensure employees utilize eye protection meeting the suggested criteria. Comprehensive information can be found in the OSHA Safety Glasses Standard.Is ANSI Z87+ a requirement by OSHA?The American National Standards Institute's (ANSI) Z87.1 guideline serves as the central standard for safety glasses. OSHA references Z87+ to denote PPE that satisfies the high-impact testing benchmarks. Consequently, selecting safety glasses marked Z87+ is advisable for work settings susceptible to high-impact dangers.What is the identification code for safety eyewear?Typically, safety eyewear bears a Z87.1 certification code, signaling compliance with ANSI standards. Adhering to this code guarantees protection against common workplace hazards like blunt impacts, radiation threats, dust, and splashes, aligning with OSHAs PPE criteria.Interpretation of Z87-2 on safety glassesThe Z87-2 mark on safety glasses indicates alignment between ANSI standards and prescription eyewear requirements. This encompasses frames and lenses that fulfill the impact protection criteria outlined by Z87.1, ensuring both vision correction and safety in perilous environments.Appropriately selecting safety eyewear in line with OSHA's mandates significantly mitigates workplace eye injury risks. For detailed specifications and directives, refer to the OSHA Safety Glasses Standard. Familiarity with these guidelines enhances both safety and regulatory adherence on the job. Considering that many jobs expose employees to potential eye risks, it is essential to guarantee eye safety in the workplace. The Occupational Safety and Health Administration (OSHA) has set clear guidelines to protect employees from these risks. To reduce the incidence of eye injuries and promote a safer work environment, it is essential to understand these requirements and the importance of wearing safety glasses.OSHA Approved Safety Glasses: Standards and RequirementsOSHA requires employers to give workers who are exposed to risks like flying particles, molten metal, chemicals, or harmful light radiation the proper eye and face protection. According to OSHA standard 1910.133, protective eye and face devices must comply with one of the following consensus standards:ANSI/ISEA Z87.1-2010: Personal Eye and Face Protection Devices for Occupational and Educational Use.ANSI Z87.1-2003: Personal Eye and Face Protection Devices for Occupational and Educational Settings.ANSI Z87.1-1989 (R-1998): Eye and Face Protection Practices for Occupational and Educational Settings.Establish standards to ensure that eye protection equipment complies with the requirements set by the American National Standards Institute (ANSI). These standards outline the necessary construction, functionality, testing, and application of the equipment to ensure it provides adequate protection against specific risks. The key features of OSHA-approved safety glasses include:Impact Resistance: This protects against flying debris and particles.Side Shields: Side shield safety glasses provide additional protection against lateral exposure to dangers.Anti-Fog Coating: To protect against blurred vision in humid environments, anti-fog safety glasses are required.UV Protection: Protecting against damaging UV rays that can cause long-term harm.Scratch-resistant lenses: improving clarity and durability.When are safety glasses necessary?To determine whether safety glasses are necessary, it is essential to examine the workplace for possible eye hazards. OSHA standard 1910.132(d)(1) requires employers to evaluate the workplace to identify hazards that necessitate the use of personal protective equipment. Situations that typically require safety glasses include:Mechanical Work: Grinding, cutting, and drilling operations can result in flying debris that can seriously injure the eyes.Chemical handling entails working with hazardous liquids or gases that can splash or emit toxic fumes, necessitating chemical-resistant safety goggles.Radiation Exposure: Specific protective eyewear is essential for tasks that involve the emission of harmful light radiation, such as welding, brazing, or working with lasers.Dusty Environments: Areas where airborne particles pose a risk to eye health, which makes dust-resistant goggles essential.Healthcare and Labs: Lab technicians and healthcare personnel must wear protective eyewear when exposed to biological contaminants, such as bloodborne pathogens.Companies must ensure that the eye protection they select is appropriate for the specific risks that have been identified. If this is not done, there is a risk of increased workplace injuries and OSHA violence.The importance and benefits of Wearing Safety GlassesWearing safety glasses is crucial for several reasons, including:Injury Prevention: By shielding the eyes from potential dangers, safety glasses greatly lower the chance of getting hurt. Around 2,000 eye injuries happen at work every day, but 90% of them can be avoided with the right PPE in the United States.Protection Against Particular Hazards: Safety glasses can protect against dust, fumes, impacts, chemical splashes, and other hazards, depending on the workplace.Prevention of Eye Strain: To reduce eye strain, features like anti-glare coatings and blue-light filtering lenses can be helpful, especially for those working with computers or in environments with bright lighting.Long-Term Eye Health: Wearing safety glasses regularly can help avoid chronic conditions such as cataracts, retinal damage, and macular degeneration that are brought on by extended exposure to hazards.Increased Productivity: Workers are more likely to work effectively when they feel safe and protected, which cuts down on lost time from accidents at work.Selecting the Right Safety GlassesWhen choosing safety glasses, consider the following factors:Lens Material: Polycarbonate lenses are more resistant to impact.Frame Type: Wraparound frames provide better coverage.Lens Coatings: Anti-fog and scratch-resistant coatings increase durability.Fit and Comfort: Adjustable frames and padded nose bridges improve long-term wearability.To ensure employees have a comfortable fit, employers should offer multiple options, encouraging compliance with safety regulations.Compliance and EnforcementEmployers are responsible for ensuring compliance with OSHA regulations and providing appropriate eye protection. If they don't follow these regulations, it can result in penalties and increased liability. Key compliance strategies include:Regular Safety Training: Proper guidance should be provided to workers on how and when to wear safety glasses.Performing Routine Inspections: Make sure that PPE is in good condition and meets OSHA standards.Promoting a Safety Culture: Raising employee awareness of eye safety to increase compliance.Following OSHA's guidelines for safety work glasses is not just a regulatory requirement but a critical aspect of workplace safety. By being aware of the regulations, both employers and employees can help create a safer work environment by identifying when safety glasses are required and valuing their advantages.Frequently Asked QuestionsWhat safety glasses are required by OSHA?OSHA mandates that safety glasses adhere to ANSI Z87.1 standards when working in environments where there are potential eye hazards, such as flying debris, chemicals, or radiation exposure.What qualifies glasses for OSHA approval?Safety features such as impact resistance, side shields, and UV protection must be provided by OSHA-approved safety glasses that meet ANSI Z87.1 standards.Why is it essential to wear safety glasses at work?Safety glasses lower the risk of blindness and long-term vision issues by preventing eye injuries from flying debris, chemical splashes, and radiation exposure.Why is it essential for safety glasses to meet OSHA standards?Safety glasses are guaranteed to provide adequate protection against potential workplace hazards, reducing injuries and ensuring adherence to OSHA requirements. When it comes to industrial workplace safety, certain equipment is essential to safeguard workers from potential risks. Safety glasses are one of the most important Industrial Safety Equipments used in many industries. But, should safety glasses be worn at all times, or only when necessary?Read Here , why safety glasses are crucial, when to wear them, and the guidelines for various jobs.What Are Safety Glasses?Safety glasses are protective eyewear that shields your eyes from potential risks. They are constructed with long-lasting materials to protect employees from flying debris, chemicals, radiation, and other industrial hazards. The lenses are often constructed of impact-resistant plastic or polycarbonate, which makes them durable to endure accidents.There are several types of safety glasses to choose from. Some come with transparent lenses, while others have a tint to help reduce glare. Some also have side shields to guard against dust, wind, or chemicals.Why Are Safety Glasses Important?Eye injuries are common in the workplace and can result in significant injury and costly medical bills. Wearing safety glasses can help prevent eye injuries and save medical bills. It is an effective technique to keep workers safe and decrease workplace dangers.Eyes are highly sensitive to any injury and can result in lasting damage or even blindness. Wearing safety eyewear contributes to:Prevent eye damage from flying debris, sparks, or chemicals.Protect eye from UV radiation in welding or other high-temperature industrial conditions.Reduce the risk of chemical spills in labs, cleaning rooms, and kitchens.Improve attention and vision clarity in bright or dangerous environments.For these reasons, safety glasses are frequently seen as important in specific work environments.When Are Safety Glasses Required?Many industries need safety glasses as part of their uniform or protective gear. The following are some routine situations where wearing safety eyewear is required:1. Construction SitesConstruction workers frequently utilize heavy equipment, power tools, and materials that can cause debris to fly into the air. Safety glasses are necessary to protect workers from these risks. Workers who work with materials such as concrete, wood, or metal are at danger of eye injuries from particles or sparks.2. Manufacturing and Industrial WorkSafety glasses are widely used in workplaces and industrial environments where machinery may release flying debris or splashes. Employees who operate with cutting tools, grinders, or presses have a big risk of eye injuries if they do not wear suitable protection gear.3. Laboratories and Chemical WorkSafety glasses are required in labs and other areas to protect eyes against chemical splashes. When chemicals come into contact with the eyes, they can cause significant harm. Even if the chemical is not acidic, it may produce irritation or other long-term effects.4. Welding and Metal WorkWelders, metalworkers, and anyone who operates in high-temperature environments must wear safety glasses or goggles to protect their eyes from UV radiation and sparks. The bright light from welding can create an arc eye, which can result in temporary blindness. In these conditions, UV-protective safety glasses are important.5. Healthcare and Medical SettingsIn medical settings, safety glasses cover eyes against spills, splashes, and bodily fluids. They contribute to the prevention of contact with bloodborne illnesses and other infectious materials. Doctors and nurses require them for operations, injections, and emergency situations. Eye protection protects them from dangerous exposure.When Are Safety Glasses Not Always Required?Safety glasses are required in many locations, but they may not always be essential in low-risk situations. However, companies should always consider the dangers before making a choice. Here are several circumstances where safety glasses may not be required:1. Office WorkSafety glasses are typically not required in offices because there are no serious dangers. However, workers who use machinery such as paper shredders or heavy office equipment should wear eye protection.2. Retail and Customer ServiceSafety eyewears are rarely required in retail or customer service settings. Still, if an individual is working in a storeroom or warehouse with potentially dangerous equipment or materials, wearing safety glasses may be required.3. Home Improvement and DIYWearing safety eyewear when completing DIY work at home depends on the nature of the activity. Activities such as cutting wood, sanding, and using power tools should always be done with eye protection. But, for simple works like organizing or cleaning, safety eyewear may be unnecessary.How to Know If You Need Safety GlassesWhen to use safety eyewear must always be easy. Employers and employees should search for hazard alerts and safety recommendations in the workplace. If your work requires any of the following, you may need to wear safety glasses:Flying particles or debris (sawing, grinding, or utilizing power tools)Splashing chemicals (cleaning, lab work, or handling dangerous compounds)UV radiation exposure (welding or outdoor work)Heat-related hazards (metalworking or working near open flames).What Happens If You Dont Wear Safety Glasses?Not using safety glasses in required situations can lead to serious eye injuries. Some common eye injuries that may develop are:Corneal abrasions due to flying debris or chemicals.Chemical burns caused by harmful chemicals splashed into the eyes.Eye Discomfort or Perhaps Irreversible damage caused by UV radiation during welding workInfections caused by bloodborne bacteria or chemicals.ConclusionSafety glasses are necessary for many professions. They shield your eyes against dust, chemicals, and flying objects. People in construction, laboratories, and hospitals frequently require them. In settings like workplaces or retail, they may not be necessary. However, it is prudent to assess any potential dangers before making a decision.Wearing Best Safety Glasses is not only an advice, It helps to protect your eyes and overall health. If you are unsure, wear them. It is just a small move that can save lives. Your eyes are essential. Always prioritize safety first. Back to top In general, eye and face protection needs to be worn whenever there is a risk to a worker that could result in an injury or harmful exposure to a workers eyes or face. These hazards are associated with:Flying objects, particles, and dust (e.g., grinding, cutting, hammering, sawing)Splashes (including droplets and sprays) from chemicals and other liquidsRadiation (e.g., welding) and lasersAbrasive and molten materialCheck the legislation in your jurisdiction to determine the requirements for eye and face protection. Many jurisdictions in Canada require eye and face protection to meet CSA Standard Z94.3 Eye and Face Protectors.Workplaces should conduct hazard assessments to identify the hazards that workers may be exposed to, and then select appropriate personal protective equipment when engineering controls or other more permanent methods of control are not possible. Consult with the personal protective equipment manufacturer about the uses and limitations of each type of eye and face protection.If using personal protective equipment is part of the work, the workplace should develop and implement a personal protective equipment program. A good comprehensive strategy involves considering the hazards, conducting risk assessments, evaluating all possible control methods, integrating various approaches, and re-examining the controls frequently to make sure that the hazard continues to be controlled. Back to top Below is a brief description of different types of eye and face protection (see tables further below for more detailed information),Safety glasses or spectacles Protect eyes from impact hazards (e.g., flying objects and particles).GogglesDirect ventilated goggles which protect against impact hazardsNon-ventilated and indirect ventilated goggles which protect against impact hazards, chemical or liquid splashes, and fine dusts.Goggles specifically designed for protection against non-ionizing radiation and lasers are also available.Face ShieldsHelps protect the eyes, nose, mouth, and face from impact hazards and chemical or liquid splashes (including saliva).Face shields are also available to protect against non-ionizing radiation, high heat and electric arcs.When used for protection from respiratory infectious diseases,face shields can offer benefits such as protection from respiratory particles produced from coughing or sneezing, and from splashed bodily fluids(e.g., blood and saliva).Welding HelmetsProtects eye and face from radiation, weld splatter, and impact hazards associated with certain activities (e.g., welding, torch cutting, brazing).HoodsProtects eye and face from impact hazards, dust, splashes, and abrasive material. Hoods are also available to protect against non-ionizing radiation, high heat and electric arcs.Respirator facepiecesFull-face respirators provide a seal or partial seal (e.g., loose-fitting hood or helmet) around the perimeter of the face. Protects eye and face from chemical exposures, fine dusts and particles, liquid splashes, and impact hazards (lens in the respirator must meet the same impact protection standards as safety glasses and face shields).Respirator facepieces are also available to protect against non-ionizing radiation. Back to top Lenses: CSA-certified eye and face protectors must meet the criteria for impact resistance as outlined in the standard. Only devices made of approved materials are permitted.Markings: The manufacturer or supplier certification mark must be present on all approved safety lenses, frames (front and temple), removable side shields, and other parts of the glasses, goggles, or helmets. Products that are tested and approved by CSA will bear the CSA certification mark.Frames: Safety frames are stronger than street-wear frames and are often heat resistant. They are also designed to prevent lenses from being pushed into the eyes. Back to top Comparison of Lens MaterialsMaterialCharacteristicsHi-VexMore impact-resistant than CR39 plasticAvailable with all surface treatments (coatings)100% UV filteringLight weightMaterial is very clearPolycarbonateMost impact-resistant of all lens materialsLightweightCan be coated for scratch resistanceMost have built-in UV radiation absorption propertiesPlastic (CR39)About one-half the weight of glassResistant to solvents and pittingTrivexMore impact resistant than CR39 PlasticLess impact resistant than polycarbonateUV radiation absorption propertiesGlassHigh-density material resulting in heavy lensesLoses impact resistance if scratchedDoes not meet impact criteria as set by CSA Z94.3From: CSA Standard Z94.3.1-16 Guideline for selection, use and care of eye and face protectors, 2016 Back to top Eye wear will protect the user if the protection device fully covers the eye and surrounding soft tissues. If eye protection is required, establish a complete eye safety protection program, including selection, fit testing, training, maintenance, and inspection.FitEnsure your safety eye wear fits properly. Eye wear should cover from the eyebrow to the cheekbone and across from the nose to the bony area on the outside of the face and eyes. Eye size, bridge size and temple length all vary. Eye wear should be individually assigned and fitted so that gaps between the edges of the device and the face are kept to a minimum.Eye wear should fit over the temples comfortably and over the ears. The frame should be as close to the face as possible and adequately supported by the bridge of the nose.Users should be able to see in all directions without any major obstructions in their field of view.Face shields should extend below the chin and above the eyes, and should wrap around the sides of the faceCareEye and face protection devices need maintenance.Clean your devices daily and as often as necessary. Follow the manufacturer's instructions.Avoid rough handling that can scratch lenses. Scratches impair vision and can weaken lenses.Store your devices in a clean, dry place where they cannot fall or be stepped on. Keep them in a case when they are not being worn.Replace scratched, pitted, broken, bent or ill-fitting devices immediately. Damaged devices interfere with vision and do not provide protection.Replace damaged parts only with identical parts from the original manufacturer to ensure the same safety rating.Do not change or modify the protective device. Back to top Lenses can be clear, tinted, photochromic or polarized. Each type offers various levels of ultraviolet protection, including no protection (even when coloured). Do not be fooled by the colour of the lenses. Back to top If you are at risk for eye or face injury at work, you should wear appropriate protection.To select the proper protectors, follow the recommendations in the table below.Note: This table cannot cover all possible hazards and combinations that may occur. Examine each situation carefully and select the appropriate protector or combination of protectors.Nature of hazardHazardous Activities involving but not limited toRecommended protectorsFlying ObjectsChipping, scaling, stonework, drilling, grinding, buffing, polishing, hammer mills, crushing, heavy sawing, planing, wire and strip handling, hammering, unpacking, nailing, punch press, latheworkClass 1A - SpectaclesClass 2A, 2B - GogglesClass 5A, 5B - HoodsClass 6A, 6D - Face shieldsFlying particles, dust, wind, etc.Woodworking, sanding, light metal working and machining, exposure to dust and wind, resistance welding (no radiation exposure), sand, cement, aggregate handling, painting, concrete work, plastering, material batching and mixingClass 1A - SpectaclesClass 2A, 2B - GogglesClass 5A, 5B - HoodsClass 6A, 6D - Face shieldsHeat, sparks, and splash from molten materialsBabbiting, casting, pouring, molten metal, brazing, soldering, spot welding, stud welding, hot dipping operationsClass 1B - SpectaclesClass 2C - GogglesClass 5C, 5D - HoodsClass 6B, 6C, 6D - Face ShieldsAcid splash, chemical burnsAcid and alkali handling, degreasing, pickling and plating operations, glass breakage, chemical spray, liquid bitumen handlingClass 2B - GogglesClass 5B - HoodsClass 6A - Face ShieldsAbrasive blasting materialsSand blasting, shot blasting, shotcretingClass 2B - GogglesClass 5B - Non-Rigid HoodsClass 6A - Face ShieldsGlare, stray light (where slight reduction of visible radiation is required)Reflection, bright sun and lights reflected welding flash, photographic copyingClass 1A - SpectaclesClass 2A, 2B - GogglesClass 5A, 5B - HoodsClass 6A - Face ShieldsInjurious optical radiation (where moderate reduction of optical radiation is required)Torch cutting, welding, brazing, furnace work, metal pouring, spot welding, photographic copyingClass 1B - SpectaclesClass 2C - GogglesClass 5C - HoodsClass 6B - Face ShieldsInjurious optical radiation (where a large reduction of optical radiation is required)Babbiting, casting, pouring, molten metal; brazing, soldering, spot welding, stud welding, hot-dipping operationsClass 3 - HelmetClass 4 - HandshieldLaser radiationLaser cutting, laser surgery, laser etchingClass 2D - GogglesElectric arc flashElectrical installation, electrical maintenance, troubleshooting of electrical systems, disconnecting live electrical systemsClass 2E - GogglesClass 5E - HoodsClass 6D - Face shieldsFrom: CSA Standard Z94.3.1-16 Guideline for selection, use and care of eye and face protectors, 2016 Back to top Eye and face protection may also be required when there is a risk of exposure to infectious diseases that can be transmitted through respiratory droplets or other bodily fluids. Splashed body fluids may also increase the risk of other diseases such as hepatitis B and C, and HIV. Safety glasses, goggles, and face shields may be used as an additional layer of protection to help prevent infectious droplets from coming into contact with a workers eyes, nose or mouth. These devices are not substitutes for respiratory protection, and appropriate masks and respirators need to be worn when required. Back to top Splashes, droplets and sprays:Goggles with indirect ventilationFace shield worn over goggles with indirect ventilationLoose-fitting respirator worn over safety glasses or gogglesFull-face respiratorIrritating chemical mists:Goggles with no ventilationFace shield worn over goggles with no ventilationLoose-fitting respirator worn over safety glasses or gogglesFull-face respirator(based on guidance from ANSI Z87.1-2015 Personal Eye and Face Protection Devices)Make sure the eye and face protection is appropriate for the hazards and is selected, used, and maintained in accordance with the applicable legislation and standards. If respirators are worn, the workplace must follow the requirements of their respiratory protection program. Fact sheet last revised: 2024-02-26 Safety glasses should be worn to prevent a potential risk of optical and facial injury. It can be when were working, doing sports, or household repair tasks. We need to understand when should safety glasses be worn, especially that eye hazards are always present and that injury can happen at the most unexpected time.Although high-risk workplaces strictly implement the use of safety glasses, you should know how to determine potential risk and when to proactively protect your eyes regardless if its obligatory or not.Read on to find out more on when to use your safety glasses and prevent unfavorable incidents that may lead to eye injuries. Wear Safety Glasses at WorkThe workplace is one of the most common places where safety glasses are essential especially in industries that involve potential exposure to causative factors and elements. Industries such as medical, pharmaceutical, telecommunication, manufacturing, construction, repair services providers, etc. have corresponding risks of health hazards. But with proper protective gear, preventive plan, and meticulous delivery and performance at work, these are avoidable.The most common work-related injuries recorded are the ones that affect the optical ability of a person. In the US alone, around 2,000 workers per day sustain eye injuries at work that require medical intervention and treatment. Although this can be prevented, eye injuries incurred at work are usual because every industry poses risk to certain types of injuries.Most of this workplace incurred eye injuries are caused by not wearing the correct safety glasses when the incident happens. This is why wearing the right safety glasses is crucial in maintaining your safety while making yourself optimally productive.This is also the reason why different industries require manpower to wear safety glasses while at work. They provide specific guidelines on what safety glasses to use and comply with the American National Standards Institute (ANSI) and Occupational Safety and Health Administration (OSHA) standards. Wearing the correct safety glasses prevents the infliction of at least 90% of workplace-related eye injuries and reduces the intensity of damage to a minimum.Are Employers Required to Provide Safety Glasses to their EmployeesAccording to the OSH Act, employers are held responsible for creating a safe and work-conducive environment and maintaining a healthy workplace for their employees. OSHA obliges employers to provide the appropriate eye protection gear to their employees. They also ensure that this policy is strictly implemented and a corresponding punishment and fine await employers who do not conform with this rule.OSHA also offers assistance to employers on what safety glasses to use and when to wear safety glasses. However, the best way is to educate oneself regardless if youre an employer or an employee. Because knowing when to use safety glasses and what particular safety glasses to use prevents unforeseeable occurrences of eye injuries of about 90% in the United States per annum.Employers Role in Maintaining a Safe WorkplaceIn the production and manufacturing industry, the most common eye injuries occur when using equipment such as grinders and sanders where theres a high risk of foreign objects entering your eyes. Assembly workers in production floors are also exposed to eye-related accidents caused by high-density powered laser beams and foreign objects getting into the eye surface.Moreover, in the construction industry, the craft workers such as carpenters, plumbers, mechanics, mason, and repairmen are also at high risk of optical injuries due to the nature of their work.Further, laboratory, pharmaceutical, and healthcare industries are also exposed to hazardous human waste, infectious diseases, chemicals, and unforeseeable turn of events that can potentially damage vision. Janitorial and maintenance personnel face the same danger while performing their duties. Thus, wearing the appropriate safety glasses is crucial in maintaining your 20/20 vision and preventing irreversible conditions.Wear Safety Glasses at SportsEye injuries may happen even when youre having fun and doing your favorite sports. As per the Workplace Eye Injury, 40% of all reported eye injuries took place at sports and recreational activities. And approximately 40,000 emergency room visits per year were accounted for due to eye injuries acquired from sports and recreational activities.The competitive nature of sports and the relaxed, laid-back, and carefree nature of recreational activities clears our mind from potential health threats. We tend to forget that accidents can happen anywhere, anytime, when we least expect it. Any sport can cause eye injuries but the most common are competitive, high-intensity, and laborious sports such as baseball, jockey, racquetball, skiing, swimming, etc.Wearing Safety Glasses During Fireworks DisplayRecreational activities such as fireworks displays also pose the risk of eye injury to the people around and the person operating or lighting the fireworks. Fireworks accidents are one of the leading causes of eye injuries.As per record, approximately 2,000 fireworks-caused eye injuries are recorded per year. And 1 of every 20 patients eventually loses their sense of sight or have an eye removed.This can be avoided by following the government protocol regarding firework displays specifically by attending professionally organized and operated fireworks displays and avoiding at-home fireworks displays. However, in areas where at-home displays are allowed and if its unavoidable, you may use safety glasses and follow the proper preventive measures to ensure everyones safety.Wearing Safety Glasses at HomeOur home is our haven but that shouldnt lead us to the misconception that just because were at home, were completely safe from accidents and health hazards. 44% or the highest recorded cases of eye injuries occurred at home according to Workplace Eye Injury, beating eye-related accidents that took place in the workplace and at sports. Moreover, 4 out of 10 blindness-causing incidents occurred at home.Yardwork, auto-repair, and even plain household chores could result in eye injuries either due to exposure to chemicals or power equipment such as shovels, trimmers, mowers, and other sharp tools. There are thousands of eye injury-causing possibilities and there are just too many to mention but the only way we can avoid this is to be ready and protective by using the right gear and safety glasses when performing housework.Its beneficial to have a few pairs of safety glasses at home. Youll never know when you might need it. And minimal harm can go your way when youre ready at all times.Also, check this Youtube video to know why and when should safety glasses be worn?ConclusionWe may not be able to control the outside stimuli but theres something we can do to prevent accidents and do our part in saving our valuable optical ability. It also helps by being perceptive to our instinct and following the most possible route of protection when the need or gut feel of a health threat presents itself.Wearing safety glasses is one way to prevent eye injuries at work, at home, at sports, and when doing recreational activities. Perceiving potential health hazards will help you identify the appropriate time to wear your safety gear for what hazard lies ahead.Having worked in the field of personal protective equipment for over two decades, Andrew Carnegie is a specialist in the field.At EDC, he strives to improve performance efficiency and promote workplace safety for EDCs readers and customers. He also researches the most up-to-date equipment that has earned relevant accreditation for use in a wide range of industries and specialties.Protecting your eyes on the job isnt just a good idea; its often a legal requirement. OSHA mandates specific safety glasses standards to safeguard workers from eye injuries that can be debilitating and life-changing. Whether youre an employer ensuring a safe workplace or an employee protecting yourself, understanding these key requirements is essential. Lets dive into the crucial guidelines that will help you choose the right eye protection and create a culture of safety.Protecting your eyesight in the workplace is non-negotiable. OSHA (Occupational Safety and Health Administration) s