

# Personal Protective Equipment Fact Sheet

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**P**ersonal Protective Equipment (PPE) can help protect employees from physical and health hazards while in the workplace. The Occupational Safety and Health Administration (OSHA) requires employers to check their workplaces for physical and health hazards that may require the use of PPE. If hazards are found that cannot be controlled by engineering or administrative means, the employer must provide employees with suitable PPE and train them in its use. Trained employees must be able to show that they understand how to wear, clean, and store the PPE correctly. The OSHA standard for PPE is contained in the [Code of Federal Regulations \(CFR\) 1910, Subpart I](#).



## Hazards Requiring PPE

**Physical hazards** that require PPE can include:

- falling, moving, or flying objects;
- moving equipment or parts;
- sharp objects that can poke, cut, stab, or puncture;
- high temperatures that can result in burns, fire, or eye injuries;
- extreme cold temperatures;
- optical light radiation; and
- sources of electricity.

**Health hazards** that require PPE can include:

- chemical exposures;
- harmful dust and other materials that can be inhaled or irritate the eyes or skin;
- biologic hazards such as blood or other infected material; and
- actionable-level sound at or above 85 decibels (dB) averaged over eight working hours.

## Types of Protection

The type of PPE that should be used by an employee depends on the nature of the hazard and the work environment.

### **Eye and Face Protection**

Protective face and eyewear can protect employees from a variety of hazards.



Employees should always wear **goggles, safety glasses, or face shields** when working with or around chemicals; flying particles; molten metal; liquid chemicals, acids, or caustics; chemical gases or vapors; potentially infected material; or potentially harmful light radiation.

### **Head Protection**

Protecting employees from potential head injuries is a key element of any safety program. Employees should wear **hard hats or helmets** to reduce the risk of injury when working in an environment where falling objects or bumping hazards are present. Wearing head protection can also protect employees from electric shock and burn hazards.

### **Foot and Leg Protection**

Protective foot and legwear can protect against many hazards. Employees should wear **safety shoes with metal toe protectors** when handling heavy objects that could crush their feet; **rubber or chemical-resistant boots** with non-slip soles and heels when working near chemicals, water, or sewage; and appropriate **non-conductive shoes** when working around electrical hazards. Other ways to prevent foot impact and compression injuries include

wearing **metatarsal guards** to protect the instep and **toe guards** that fit over the tips of regular shoes. Lower legs can be protected from hazards such as molten metal or welding sparks by wearing **chaps or leggings**.

### **Hand and Arm Protection**

Protective **gloves made of rubber, neoprene, nitrile, Kevlar, or steel mesh** can protect employees' hands from chemicals or cuts. Employees should check with their supervisor before using gloves. Different types of gloves protect the hands from different chemical or physical hazards, and in some cases can create additional hazards.

### **Body Protection**

Employees who face possible bodily injury of any kind that cannot be eliminated through engineering, work practice, or administrative controls must wear appropriate body protection. Some workplace hazards that can cause bodily injury include cuts; radiation; temperature extremes; hot splashes from molten metals and other hot liquids; potential impacts from tools, machinery, and materials; and hazardous chemicals. Examples of body protection may include **laboratory coats, coveralls, vests, jackets, aprons, surgical gowns, and full-body suits**.

### **Hearing Protection**

In an environment where noise levels exceed 85 decibels (dB), hearing protection such as **single-use earplugs, pre-formed or molded earplugs, or earmuffs** can be used to reduce the sound to a safe level. Generally, the louder the noise, the shorter the time employee exposure is allowed. Employee exposure to excessive noise depends on many factors

including its loudness; the duration each employee is exposed to the noise; whether employees move between work areas with different noise levels; and whether noise is generated from one or multiple sources.

## **Respiratory Protection**

When engineering controls are not feasible, workers must use appropriate respirators to protect against injuries and illnesses caused by breathing air contaminated with harmful dust, fog, mist, fumes, gases, smokes, sprays, or vapors. Respirators protect the user in two basic ways. The first is by removing contaminants from the air. These types of respirators include **particulate respirators**, which filter out airborne particles, and **air-purifying respirators** with cartridges or canisters which filter out chemicals and gases. Other respirators protect by supplying clean respirable air from another source. Respirators that fall into this category include **airline**

**respirators**, which use compressed air from a remote source, and **self-contained breathing apparatus (SCBA)**, which include an air supply. Effective respirators require a proper fit. Before use, employers must provide medical evaluations and training.

## **PPE for Hazardous Chemicals**

When working with hazardous chemicals, the required PPE will be **specified on the Safety Data Sheets (SDS)** for those chemicals.

Any employee who is unsure about what PPE to use or does not have the appropriate PPE should ask their supervisor for assistance.

For more information on PPE or other topics, download or stream any of DWC's free workplace health and safety [publications](#) or [online videos](#); or contact a DWC safety training specialist at [www.txsafetyatwork.com](http://www.txsafetyatwork.com) or 1-800-252-7031, option 2.





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**1-800-252-7031, Option 2**

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