

Personal Protective Equipment General Guidelines for Selection and Use

Head Protection/Hard Hats

1. Hard hats must be used in areas where a reasonable risk exists for injury to the head.
2. Hard hats must comply with ANZI Z89.1-1986.
3. Hard hats should not be worn over a hat or cap. Special hard hat liners are available if necessary for protection from cold weather.
4. Hard hats should be inspected regularly. Replace the hard hat if it has a crack or hole, or if it has sustained a heavy blow. Do not drill or cut hard hats.
5. Non-conductive hard hats (class B or C) are required for protection from electrical hazards.

Eye and Face Protection

1. Eye and face protection must be worn in areas where a reasonable or obvious risk exists for chemical splashes, flying objects or physical hazards that could result in an eye or face injury.
2. PPE for eye and face protection must comply with ANSI Z87.1-1989.
3. For flying particle, safety glasses with side shields or goggles may be specified for protection. Face shields over goggles may be required to protect against a high volume of flying objects.
4. When working in a lab where chemicals are being used, chemical splash goggles must be worn.
5. Side shields cannot be removed from safety glasses.
6. Normal prescription glasses do not provide adequate protection from injury to the eye and do not meet ANSI eye protection specifications. Safety glasses must be worn over regular prescription glasses, or prescription safety glasses may be obtained, but they must have side shields.
7. Inspect eye and face protection frequently for cleanliness, proper fit, and scratches that impair vision. Adjust, replace or take for repair as needed.
8. Contact EH&S if you wear contact lenses and need to use eye or face protection.

Hand Protection

1. Hand protection must be worn when necessary to protect against chemical exposure and physical hazards such as thermal (hot or cold) burns, abrasions, cuts, slivers, etc.
2. Select the right type of glove for the job and conditions. Appendix B of the *Chemical Hygiene Plan for Laboratories* contains a chemical compatibility guide for gloves. In general:
 - Leather is a good choice for protection against rough surfaces, sparks, chips and moderate heat.
 - Cloth protects in general shop conditions from dirt, chafing abrasions, wood slivers and low heat.
 - Rubber and nitrile protect against acids, some chemical burns and electrical shock.
 - Plastic protects against some chemicals and corrosives. Refer to Appendix B of the *Chemical Hygiene Plan For Laboratories* before choosing gloves for chemical use
3. Make sure gloves fit properly.

4. Inspect gloves often for cracks, holes, tears, good flexibility and grip.

Torso Protection

1. The purpose of protective apparel is to provide protection for the body from injury from sharp objects, chemical exposure, and temperature extremes.
2. Lab coats, chemical resistant aprons, and disposable Tyvek suites are examples of protective apparel.
3. Proper selection should be based on intended use. Contact EH&S for assistance.

Foot Protection

1. Safety shoes or boots are required to protect against heavy objects, chemical splashes and spills, and punctures and should be worn when these dangers exist.
2. Safety shoes and boots must meet the ANSI Z41-1991 standard, which provides for both impact and compression protection.

Hearing Protection

1. OSHA requires that all employees exposed to a time-weighted noise level of 85 decibels (dBA) or greater be included in a hearing conservation program. No areas or tasks on the Montana Tech campus have been identified as exceeding this limit. However, hearing protection is still highly recommended in noisy areas or when performing tasks with noisy equipment or machinery.
2. Either earplugs or earmuffs are selected for protection against hearing damage or loss. Contact EH&S for specific recommendations.

Respiratory Protection

1. Montana Tech has a Respiratory Protection Program. The requirements of the program include medical evaluation, fit testing of the respirator, and training in all aspects of respirator use.
2. Employees who wear respirators must be included in this program. Contact EH&S for information.