PERSONAL PROTECTIVE EQUIPMENT GUIDELINES

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1. INTRODUCTION

Personal protective equipment (PPE) refers to any equipment that is worn to protect the body from injury or illness. This typically includes safety eyewear, hand protection, protective clothing, protective footwear, respirators, hearing protectors, fall protection and protective headwear.

PPE should only be used when engineering controls 1) do not exist 2) are not practicable 3) are temporarily ineffective because of an equipment breakdown 4) do not fully eliminate the hazard or 5) due to an emergency situation. This is in accordance with regulations under the Ontario Occupational Health and Safety Act (R.S.O. 1990).

This guideline outlines applications, types, selection, use and care of eye and face protectors, head protection, hand and arm protection, body protection and foot protection. It does not address PPE requirements related to respirators, hearing protectors or fall protection. These topics are covered separately under the University Respiratory Protection Program, Hearing Conservation Program and Work at Heights Program.

PPE that is required by employees to complete a task safely in the workplace will be provided by the University. Safety shoes and prescription safety eyewear will be subsidized by the University for regular full-time employees.

2. ROLES AND RESPONSIBILITIES

2.1. MANAGER/SUPERVISOR

- Completes hazard assessments to identify the workplace hazards and necessary controls (Refer to Section 3 and Appendix A)
- Ensures that appropriate PPE is used when and where necessary
- Provides training to workers on the personal protective equipment required to complete a task safely
    - Ensures that signage is posted at entrances to areas where it is required
    - Documents PPE requirements in work procedures and update as necessary
- Enforces the use of PPE during tasks and in areas where it is required
- Ensures that PPE that is used in the workplace is maintained in an acceptable condition

2.2. WORKER/STUDENT

- Wears PPE during tasks and in areas where it is required
- Participates in training on PPE, as appropriate
- Inspects PPE prior to each use
- Reports damaged PPE to supervisor
- Cares for, cleans and maintains PPE

2.3. ENVIRONMENTAL HEALTH & SAFETY UNIT (EHS)

- Provides consultation on selection, use and care of PPE, as needed
- Monitors changes in regulatory requirements pertaining to personal protective equipment and updates guidance accordingly

3. HAZARD ASSESSMENT

A hazard assessment is the first step in identifying the PPE required for a task or in a work area. PPE requirements have been established for a number of departments and work areas at the University of Guelph Main Campus, Ridgetown Campus and the Research Stations. Refer to safety manuals (e.g., Biosafety, Laboratory Safety and Radiation Safety) and department-specific procedures for established PPE requirements in your work area.

For new tasks or changes to existing work processes, a hazard assessment should be conducted by the supervisor or manager and is an important first step in identifying hazards that may pose a health or safety risk to workers. Workplaces and tasks should be periodically re-assessed as conditions, equipment or procedures change

The Hazard Assessment Form in Appendix A is a tool to complete and document the hazard assessment process. While completing the assessment consider the following hazards:

- Extreme temperatures (e.g., outdoor work in cold or hot temperatures)
- Splash hazards (e.g., laboratory procedures/equipment)
- Sharp edges, penetration or cutting hazards (e.g., power tools in a machine shop)
- Dusts (e.g., generated in a machine shop or construction site)
- High-intensity lights (e.g., research or welding work)
- Falling debris (e.g., work on construction site)
- Heavy equipment (e.g., potential for dropping equipment, compression or roll-over)
- Noise (e.g., process noise, noisy animals, loud equipment)
- Biological (e.g., research-based or diagnostic work with pathogenic material)

Once the hazards have been identified, the types of PPE required to complete a task safely can be determined. When identifying PPE required for the tasks consider the outcome of an unprotected exposure and any available historical injury or illness data. Supervisors must retain a copy of the Hazard Assessment Form for as long as the work task/process is conducted. EHS is available for guidance and consultation at any point during the hazard assessment process.

4. SELECTION OF PPE

The PPE selected for a task or work area should be based on the hazard assessment conducted by the Supervisor or Manager. When selecting PPE suppliers, types, styles and models review the following considerations:

- Fit and comfort
- Availability of a range of sizes
- Multiple PPE worn together are compatible with each other and comfortable for the user
- Meets applicable Canadian Standards Association (CSA) standard (see Figure 1 CSA certification mark)
- Hazard specific considerations:
    - Flammable solvent use (e.g., PPE intrinsically safe)
    - Temperature and humidity in work environment
    - Activity level (e.g., sweat production and evaporation)
    - Chemical hazards and compatibility with PPE
    - Water vapour permeability, mechanical strength, static charge

- Protection against biological agents
- Heat transfer through protective clothing
- Puncture and cut resistance
- Aerosol penetration through seems and fabric
- Need for cleaning and/or decontamination for re-useable PPE (e.g., re-useable chemical gloves)
- Ergonomic considerations

Samples of PPE may be requested from suppliers in different styles and sizes. Inquire about warranties, exchange and return policies. Consult EHS for further guidance and support, as needed.

Figure 1: CSA Certification Mark

5. TRAINING

General training on PPE use is to be provided by the supervisor. This should include:

- When and why PPE is necessary
- What PPE is necessary
- How to don, doff and adjust
- Limitations of the PPE
- General care and maintenance

Consult EHS for support or for training on more specialized PPE such as respirators, hearing protection devices and fall protection equipment.

6. EYE AND FACE PROTECTION

6.1. APPLICATIONS

Eye and face protection is PPE designed to protect against impact, splash and radiation hazards. Workers who may be exposed to eye or face hazards must wear appropriate PPE. Examples of hazards include the following

- Flying particles
- Molten metal
- Liquid chemicals
- Acids or caustics

- Chemical gases or vapours
- Lasers
- Electrical arc flash
- Biohazardous materials
- Harmful light

Examples of job classifications where eye protection should be routinely considered include but is not limited to the following:

- Carpenters
- Electricians
- Machinists
- Mechanics
- Millwrights
- Plumbers
- Pipefitters
- Sheetmetal workers
- Welders
- Laboratory personnel
- Agricultural technicians

6.2. TYPES

Eye and face protectors vary in style and the extent of eye and face coverage. Refer to Table 1 for information on the types and definitions of common eye and face protectors.

The University subsidizes prescription safety eyewear for regular full-time employees who are exposed to eye hazards in the workplace. Prescription safety eyewear must be fitted by a licensed ophthalmic practitioner. Refer to the University's Prescription Safety Eyewear Program for further information.

Regular prescription eyewear does not provide adequate protection and must not be used in place of eye and/or face protection. Over-the-glasses protectors (oversized protectors to be worn over prescription eyewear) should only be used by those who require only occasional protection.

Contact lens users should consult with their supervisors regarding use. An assessment should be conducted to evaluate potential safety hazards, to determine if contact lens use should be permitted in the work area. Contact lenses do not provide eye protection and should not be used in lieu of a CSA compliant eye protector. Please contact the Occupational Hygienist (x54855) for further guidance and information.

Laser safety eyewear must be worn when working with Class IIIa, IIIb and IV lasers. Please contact the Radiation Safety Officer (x53774 or x54888) for more information about laser safety eyewear.

Table 1: Types of Eye and Face Protectors

Type	Definition
Spectacles	Protective eyeglasses constructed of impact resistant materials with side-shields
Goggles	Tight-fitting eye protection that fully covers the eyes, eye sockets and immediate area surrounding the eyes and may provide protection from impact, dust, gases and vapours and splashes
Welding shields	Constructed of vulcanized rubber or fiberglass and fitted with a filtered lens to protect eyes from infrared or intense radiant light. Also protects face from flying sparks, metal splatter and slag chips produced during welding, brazing, soldering and cutting operations
Face shields	Transparent plastic shield extending from eyebrows to below chin and across width of head. Some may offer protection against glare. Designed to protection against nuisance dusts, splashes or sprays of hazardous liquid. Used in combination with safety spectacles or goggles, it will provide impact protection

Adapted from: Personal Protective Equipment Occupational Safety and Health Administration (OSHA). 3151-12R 2004.

6.3. SELECTION

When selecting eye and face protectors consider the hazards that are present (impact, heat, chemical, biological, dust or optical radiation) and the ability of the device to protect against them. Protective eyewear must meet CSA Z94.3 and display a certification mark on the frame and on the packaging. Review the following additional considerations when selecting protective eyewear:

- Fit and comfort – eyeglasses should fit snugly without eyelashes hitting lenses
- User should have unrestricted vision and movement
- Durable and cleanable
- Functional with other PPE that may be worn

When working around live electrical equipment, non-conducting frames shall be worn. For guidance on selecting tinted safety eyewear refer to Appendix B. For further guidance and support on selecting eye and face protection consult EHS.

6.4. USE AND CARE

Eye and face protectors must be inspected before use and must not be modified in any way. Clean dirty lenses or shields routinely and replace if scratched, cracked, pitted or faded. Store protectors in a clean and dry area in between periods of use.

6.5. STANDARDS

CSA Z94.3.1 Guideline for selection, use and care of eye and face protectors

CSA Z94.3 Eye and Face Protectors

CSA W117.2 Safety in welding, cutting and allied processes

7. HEAD PROTECTION

7.1. APPLICATIONS

Head protection must be worn when there is a risk of injury to the head due to impact, penetration or potential contact with electrical hazards. Head protection is worn when:

- Objects may fall or strike from overhead such overhead cranes or hoist operations, tree trimming, areas with overhead conveyors
- There is the risk of bumping heads against a fixed object such as extended pipes or beams
- There is the possibility of accidental head contact with electrical hazards

Examples of job classifications where head protection should be routinely considered includes but is not limited to the following:

- Construction Project Manager/Co-ordinators
- Carpenters
- Electricians
- Plumbers
- Welders

Signage must be posted in areas where head protection is required.

7.2. TYPES

Protective helmets or hard hats are designed to resist penetration by objects, absorb the shock of a blow, be water-resistant and slow burning. Table 2 defines the different types of protective headwear, according to the CSA (Z94.1) classification.

Class/Type	Description
Class C	Impact protective headwear that does not provide dielectric protection, that is, it is not able to resist the passage of electric current.
Class E	Impact protective headwear that provide protection against an applied voltage increasing at a uniform rate of 1000± 50V/s to a maximum of 20 000 V ±3% with the maximum voltage maintained for 3 minutes
Class G	Impact protective headwear that provides protection against a maximum voltage of 2200 ±20V for 1 min
Type 1	Headwear that provides impact and penetration protection for the crown only
Type 2	Headwear that provides impact and penetration for the crown and laterally

Adopted from Personal Protective Equipment. Workplace Safety & Prevention Services. 2011.

7.3. SELECTION

When selecting protective headwear, consider the type of hazards that may be encountered (impact, penetration and potential exposures to electric current). Protective headwear must meet CSA Z94.1 and display the certification mark. Review the following additional considerations when selecting protective headwear:

- Compatibility with other PPE that may be worn (e.g., protective eyewear, adapters for ear muffs)
- In selecting head protection consider sizing and fit. To assess fit (from CSA Z94.1):

- User should place headwear on head and push down until the headband and shell are at a comfortable height, leaving an air gap between the top of the head and crown of headwear- the harness should not be in contact with the crown of the headwear at any point – the air gap is a vital part of the shock absorption system for protecting the head against impact to the shell.

- User should gradually tighten or adjust the strap at the nape of the neck until it is secure but comfortable. When properly tightened the headwear is not likely to fall from the head when the user shifts head side to side or leans forward.

- High visibility headwear or headwear with retroreflective tape should be worn where worker visibility is required (e.g., low lighting conditions, at night)

For further guidance and support on selecting protective headwear, consult EHS.

7.4. USE AND CARE

- Hard hats must be worn with the bill facing forward, for effective protection.
- Decals or laminates may be applied to the headwear if they are compatible with the surface materials and do not impact its performance or affect the ability to properly inspect it. If uncertain, check with the manufacturer.
- Close-fitting head coverings with no metal parts (e.g., bandanas or handkerchiefs) may be worn
- Baseball style caps may not be worn under protective headwear
- Do not apply insect repellants into headwear as they may degrade the headwear and reduce the level of protection
- Do not store in direct sunlight, as it may make it brittle and deteriorate faster
- Hard hat should be assembled in accordance with manufacturer's instructions
- Prior to each use:
    - Inspect for cracks or other signs of wear such as dents, cuts or gouges
    - Inspect for sun and heat damage – e.g., signs that it has become brittle where it is dull in colour, matte chalky, or there is a craze pattern (network of fine cracks)
    - Replace if showing these signs
    - Inspect suspension – look for twisted straps, cuts or fraying, cracks or tears in plastic
- Headwear that has been struck by an object must be replaced even if there are no signs of damage
- Hard hats must be replaced in accordance with manufacturer specifications.
- Follow manufacturer instructions for cleaning procedures –
    - Regularly clean the shell suspension and liner to extend the life of protective headwear
    - Clean with mild soap and warm water. Do not use abrasive petroleum based cleaning products or solvents as this can weaken the materials. Air dry thoroughly. Do not apply heat to dry as this can age the components.
- Do not alter protective headwear in any way
- Do not paint, make holes or attach accessories unless in accordance with manufacturer's specifications
- Winter liners used in Class G and Class E headwear must be flame-resistant

- To obtain optimum levels of protection against electric shock the headwear must be clean and dry. Headwear that is wet or contaminated with oil or grease or other conducting chemicals or fitted with inappropriate accessories may have reduced protection against electric shock

7.5. STANDARDS

CSA Z94.1 Industrial protective headwear –Performance, selection, care and use

8. HAND AND ARM PROTECTION

8.1. APPLICATIONS

As with other hazards, engineering controls and work practices (e.g. machine guards) should be implemented to eliminate hazards, but where there is still a potential for injury to hands or arms, appropriate protection must be provided. Examples of hazards to hands and arms include absorption of harmful substances, chemical or thermal burns, electrical hazards, bruises, cuts abrasions, fractures, amputations and biohazards.

8.2. TYPES

In general, there are four types of hand and arm protectors.

1) Leather, canvas or metal mesh (cuts, burns, chips, rough objects)
2) Fabric and coated fabric (dirt, slivers, abrasions)
3) Chemical and liquid-resistant (chemical absorption)
4) Insulating rubber (electrical)

8.3. SELECTION

Refer to Appendix C - Guide to Selection of Hand Protection for details on selecting hand protection. In general, consider the following when selecting gloves:

- Type of hazard (e.g. chemical, biohazard, abrasion etc.)
- If chemical, the type of chemicals handled
- Nature of contact (total immersion, splash)
- Duration of contact
- Area requiring protection (hand, forearm, arm)
- Grip requirements (dry, wet, oily)
- Thermal protection
- Size and comfort
- Abrasion resistance

For work with biohazardous agents and in laboratories refer to the University of Guelph Laboratory Safety, Radiation Safety and Biosafety Manuals for further information and requirements. Consider nitrile or latex-free gloves versus natural latex products, as many individuals have sensitivities or may develop a latex allergy with prolonged usage. For further guidance on selecting hand and arm protection, consult EHS.

8.4. Use and Care

- Inspect before use for tears or punctures, discoloration or stiffness; discard and take a new pair of gloves if showing these signs of wear or defect
- Do not re-use disposable–type chemical resistant gloves
- When re-using gloves exposed to chemicals, consider toxicity of chemicals, exposure duration, storage and temperature, ability to wash/clean and glove lifespan

9. Body Protection

9.1. Applications

As with other hazards, engineering controls and work practices should be implemented to mitigate hazards, but where there is still a potential for injury to the body, appropriate protection must be provided. Examples of hazards to the body include: temperature extremes, splashes from chemicals, biohazardous materials or molten metals or other hot liquids and/or impact from machinery or tools.

9.2. Types

Body protection may include laboratory coats, coveralls, vests, jackets, aprons, surgical gowns and full body suits. Protective clothing may be made of materials such as:

- Paper-like fibres (disposable suits for dust and splash protection)
- Treated-wool and cotton (changing temperatures, comfortable, fire-resistant and protects against dust, abrasion, rough and irritating surfaces)
- Duck – closely woven cotton fabric that protects against cuts and bruises when handling heavy, sharp or rough materials
- Leather – to protect again dry heat and flames
- Rubber, rubberized fabrics, neoprene and plastics – protection against chemical and physical hazards

9.3. Selection

A hazard assessment must be conducted to determine the type of body protection required for a task. Several University departments have established requirements related to body protection. For example, front-button laboratory coats and/or nursing work uniforms (‘scrubs’) are required in laboratory and hospital areas where chemical, biological or radiological hazards are present.

Refer to the University of Guelph Laboratory Safety, Biosafety and Radiation Safety Manuals and other department-specific procedures for further guidance.

9.4. Use and Care

Protective clothing should be inspected prior to each use and must fit well. Do not re-use disposable–type coveralls, suits or gowns. When re-using protective clothing exposed to chemicals, consider toxicity of chemicals, exposure duration, storage and temperature, ability to wash/clean and lifespan. Re-useable protective clothing must be routinely laundered and/or disinfected as needed. The frequency of laundering should be established, as

well as criteria for when clothing is taken out of use. Refer to department-specific policies regarding laundering protective clothing at home.

10. FOOT PROTECTION

10.1. APPLICATIONS

CSA-approved protective footwear must be worn to protect from falling or rolling objects, crushing or penetrating materials. Consider CSA-approved protective footwear when the following potential hazards are present:

- Heavy objects such as barrels or tools may roll or fall on worker's feet
- Working with sharp objects such as nails that can pierce the soles or uppers of shoes
- Working with molten metal that may splash on feet or legs
- Corrosive or irritating substances
- Working around hot, wet or slippery surfaces
- When electrical hazards present
- Explosive atmospheres
- Uneven walking surfaces
- Rotating, cutting or abrading machinery (chainsaws, grinders)

Some University departments have established requirements related to footwear. As examples, closed-toed, closed heeled shoes are required in all laboratory and hospital areas; Hospitality Services requires that anti-slip footwear be worn by all food operations staff; and Physical Resources staff working in or entering into shops or construction sites are required to wear CSA-approved protective footwear with protective toe-cap, sole and electric shock resistance (Green triangle and white rectangle with orange Greek letter omega). Refer to the University of Guelph Laboratory Safety, Radiation Safety and Biosafety Manuals and department-specific procedures for further guidance.

10.2. TYPES

Type	Description
Protective toe-cap	Footwear with that has a toe-cap incorporated that provide impact protection
Protective Sole	Footwear that has an integrated plate that provides protection against penetration of sharp objects into bottom of foot
Metatarsal protector	Footwear with shield over the top of the foot that provides protection to metatarsal area of foot
Electric-shock resistant	Footwear that has electric insulating properties and provides protection against accidental electric shock
Static-dissipative footwear	Footwear that allows for small charges of electricity to be dissipated into the walking surface (not intended for use where there are explosive hazards)
Conductive footwear	Footwear constructed of a conductive material designed to electrically ground the foot (for use where they are explosive hazards)

Chainsaw protective footwear	Footwear designed to prevent a chainsaw from cutting into the shin, ankle, foot and toes
Slip-resistant footwear	Footwear designed to maximize traction and reduce slippage
Over-the-shoe protectors	Designed to provide basic protection from impacts to toes on a temporary basis

10.3. SELECTION

A hazard assessment must be conducted by the manager/supervisor to determine the hazards in the work area and footwear protection needed. EHS can assist with these assessments, as needed. Requirements must be communicated to personnel through signage and workplace procedures.

Consider the following during the hazard assessment:

- Resistance to heat/cold
- Water resistance
- Flame resistance
- Chemical resistance
- Arc flash protection
- Abrasion
- Ankle protection
- Compression
- Dielectric protection

If there is a potential exposure to electrical hazards, non-conductive footwear must be worn

If CSA-approved footwear is required in the workplace, it must have sole puncture protection with a Grade 1 protective toecap and electric shock protection, unless the hazard assessment indicates otherwise. The selected protective footwear must meet CSA Z195.1, as indicated by certification markings on tongue or upper of right shoe (Green triangle and white rectangle with orange Greek letter omega Ω). See Appendix D Classification of hazards and recommended footwear.

When purchasing protective footwear users should:

- Select footwear for the hazards in their work area
- Assess fit and consider the following
    - feet swelling over course of day
    - comfort
    - fit shoes to larger foot, as right and left feet are often different sizes
    - check that heels fit with minimum slippage
    - ball of foot fits well at the widest part of shoe
    - do not assume footwear will stretch over time

The University subsidizes protective footwear for regular full-time employees who may be exposed to foot hazards in the workplace. Refer to the Safety Footwear Subsidy Program for further information.

10.4. USE AND CARE

- Lace footwear to top to get full protection from safety footwear and prevent against tripping hazards
- If using liners, orthotics or insoles, try them when selecting footwear and discuss with footwear supplier to verify that it will not affect impact and conductive protection
- Inspect before each use for cracks, exposed toe caps and other damage
- Keep treads clean
- Recommend replacing footwear after sole has been penetrated or after severe impact even if no obvious signs of damage

10.5. STANDARDS

CSA Z195.1 Guideline on Selection, Care and Use of Protective Footwear

11. REFERENCES

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APPENDIX A – HAZARD ASSESSMENT FORM

Workplace Identification:				**Date:**
Department/Location:		**Building No.:**		**Conducted by:**
Activity/Task:				
Potential/Known hazards associated with activity:	Consider impact, penetration, compression, chemical, biological, heat/cold, dusts and optical hazards			
Potential Consequences:	Possible consequences (e.g., impact to health, environment, infrastructure)? How likely will these occur? Severity of the harm? Who is at risk?			
Preventative Measures:	What measures can be taken to eliminate or reduce the level of risk? Can these measures fail? What would the consequences be if the measures fail? Training? Emergency Procedures?			
PPE required:				
Prepared by: (print and sign)				
Approved by: (print and sign)				

APPENDIX B – CONSIDERATIONS WHEN SELECTING TINTED PROTECTIVE EYEWEAR

Lens Colour: Grey, brown or grey/green lenses provide glare protection without distorting colour vision. These are more suitable lens colours for driving and flying. Yellow or orange lenses reduce glare, but may impair colour perception.

Lens density: Most workers do not require sunglasses that transmit less than eight per cent of incident light.

UV blockage: Polycarbonate and plastic lenses block UV better than glass lenses. Look for the transmittance level of UVA and UVB on the package, label or tag. UVA and UVB protection can be embedded in the lens or coated on the lens. Consult your optician for selection advice. Polarizing lenses eliminate reflected glare from water and road surfaces and block UV radiation.

Material: Plastic or polycarbonate lenses are lighter and more comfortable than glass lenses. They are generally more impact-resistant when thicker than two millimetres (2mm). However, glass lenses are more scratch-resistant.

Optical quality: Optically ground and polished lenses are superior to moulded ones. Check the appearance of reflections from the lens surfaces for distortions that indicate inferior optical quality.

Frame: The earpieces and bridge or nose pads should fit snugly with slight adjustments, but not pinch. Hinges should turn smoothly, and the edges should be smooth to the touch. The frame design should be rugged enough to withstand frequent handling. Larger lenses sizes provide more effective sun protection than smaller ones.

APPENDIX C- GUIDE TO THE SELECTION OF HAND PROTECTION

Hazard	Degree of Hazard	Protective Material
Abrasion	Severe	Reinforced heavy rubber, staple-reinforced heavy leather
	Less Severe	Rubber, plastic, leather, polyester, nylon, cotton
Sharp Edges	Severe	Metal mesh, staple-reinforced heavy leather, Kevlar™, aramid-steel mesh
	Less Severe	Leather, terry cloth (aramid fiber)
	Mild with delicate work	Lightweight leather, polyester, nylon, cotton
Chemicals and fluids	Risk varies according to the chemical, its concentration, and time of contact among other factors. Refer to the manufacturer, product MSDS or consult with EHS. Ansell Chemical Resistance Guide Showa Chemical-Resistant Glove Guide	**Dependant on chemical.** Examples include: Natural rubber, neoprene, nitrile rubber, butyl rubber, PTFE (polytetrafluoroethylene), Teflon™, Viton™, polyvinyl chloride, polyvinyl alcohol, Saranex™, 4H™, Barricade™, Chemrel™, Responder™, Trellchem™
Cold		Leather, insulated plastic or rubber, wool, cotton
Electricity		Rubber-insulated gloves tested to appropriate voltage (CSA Standard Z259.4-M1979) with leather outer glove
Heat	Greater than 350°C	Zetex™
	Up to 350°C	Nomex™, Kevlar™, heat-resistant leather with linings
	Up to 200°C	Nomex™, Kevlar™, heat-resistant leather, terry cloth (aramid fiber)
	Up to 100°C	Chrome-tanned leather, terry cloth
General Duty		Cotton, terry cloth, leather
Product Contamination		Thin-film plastic, lightweight leather, cotton, polyester, nylon
Radiation		Lead-lined rubber, plastic or leather

Modified table taken from http://www.ccohs.ca/oshanswers/prevention/ppe/gloves.html, November 15, 2005

APPENDIX D- CLASSIFICATION OF HAZARDS AND RECOMMENDED FOOTWEAR

Selection of Safety Footwear		
Marking	**Criteria**	**Intended Application**
	Green triangle indicates sole puncture protection with a Grade 1 protective toecap.	For heavy industrial work environments, especially that of construction where sharp objects (such as nails) are present.
	Yellow triangle indicates sole puncture protection with a Grade 2 protective toecap.	For light industrial work environments requiring puncture protection as well as toe protection.
	Blue rectangle indicates a Grade 1 protective toecap with no puncture-resistant sole.	For industrial work environments not requiring puncture protection.
	Grey rectangle indicates a Grade 2 protective toecap with no puncture-resistant sole.	For industrial and non-industrial work environments not requiring puncture protection.
	White rectangle with orange Greek letter omega indicates electric-shock protective footwear.	For industrial work environments where accidental contact with live electoral conductors can occur. **Warning:** Electrical shock resistance deteriorates with wear and in a wet environment.
	Yellow rectangle with black SD letters indicates static-dissipative footwear.	For industrial work environments where a static discharge can create a hazard for workers or equipment. **Warning:** This footwear should not be used where contact with live electrical conductors can occur.
	Yellow rectangle indicates sole puncture protection with a Grade 2 protective toecap. (super-static dissipative footwear)	For industrial work environments where a static discharge can create a hazard for workers or equipment. **Warning:** This footwear should not be used where contact with live electrical conductors can occur.
	Red rectangle with white C letter indicates electrically conductive footwear.	For industrial work environments where low-power electrical changes can create a hazard for workers or equipment. **Warning:** This footwear should not be used where contact with live electrical conductors can occur.

	Dark grey rectangle with M letter indicates metatarsal protection. **Note:** Toe protection is required for all metatarsal protective footwear.	For industrial work environments where heavy objects can hurt the metatarsal region of the foot.
	White label with green fir tree symbol footwear provides protection when using chainsaws.	For forestry workers and others who work with or around hand-held chainsaws and other cutting tools.

NOTE: Footwear will also be marked to indicate the level of slip resistance. These markings may be on the packaging, the footwear, or on a product sheet.

Adopted from CCOHS Safety Footwear https://www.ccohs.ca/oshanswers/prevention/ppe/footwear.html