



## 3.25 Personal Protective Equipment (PPE)

### Eye Protection Information Sheet

#### Purpose

The purpose of this information sheet is to provide information on personal protective equipment (PPE) which may be required to minimise an eye risk at work.

Specific requirements may be outlined in the [Work Health and Safety \(WHS\) Regulations 2012 \(SA\)](#) and [Approved Codes of Practice](#). The references to the standards and resources have been included in this information sheet.

**This Information Sheet should be read in conjunction with the [HSW Handbook Chapter Hazard Management](#).**

Personal Protective Equipment is the **least effective** control measure. This is because users have to remember to wear it, and it does nothing to minimise the underlying hazard. For these reasons, higher level controls must first be considered.

#### Q1 When should eye protection be considered as a control measure?

Where a risk of injury or illness still remains after all other control measures have been applied, a School/Branch may be able to further minimise the remaining risk, by the provision and use of suitable PPE to prevent damage to the eyes. Refer [WHS Regulations 2012 \(SA\) \[36\]](#).

Generally this would be applied as a result of:

1. the School/Branch mandating the use of eye protection upon entry to the area as a general precaution such as in a workshop or laboratory, based on a reasonable assessment of the hazards in the area.
2. a risk assessment for a task or process.

Where eye protection is mandatory prior to entering an area, appropriate signage complying with [AS 1319 \(1994\) "Safety signs for the occupational environment"](#) must be displayed. Examples of approved signage appear in [Appendix A](#).

Where eye protection has been mandated, there is a responsibility to ensure it is being worn. This responsibility applies to the person who has made the mandate and their delegates e.g. Head of School/Branch and Supervisors.

#### Q2 Can I use my prescription glasses as eye protection?

Standard prescription glasses e.g. reading glasses are not considered suitable for eye protection as they do not provide any side protection. Standard prescription glasses may be worn when also wearing safety glasses which have been designed to fit over the top of prescription glasses.

Prescription safety glasses can be obtained from an optometrist. Prescription safety glasses must be manufactured to meet the requirements of [AS/NZS 1337.6 \(2012\) "Personal eye protection – Prescription eye protectors against low and medium impact"](#).

#### Q3 What are some examples of hazards that require eye protection?

Please refer to Table 1 and Table 2 for a list of hazardous activities and options to control the hazards arising from them.

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**Q3 What are some examples of hazards that require eye protection? (Continued)**

**Table 1 Hazardous activities and recommended eye protectors (extract from [AS/NZS 1336 Eye and face protection - Guidelines](#))**

Typical processes giving rise to eye hazards	Hazard (of the process)	Typical methods of controlling hazards	Suitable type of eye protectors (See Table 2)
<b>Workshop and Trade Work</b>			
Manual chipping, riveting, spalling, hammering, handling wire and brick cutting	Flying fragments and objects with low velocity or low mass	Fixed or mobile screens	Low impact <b>Note:</b> Medium impact (marked I) and high impact (marked V) will give greater protection
Machine disc cutting of materials, scaling, grinding and machining metals, certain wood working operations, stone dressing	Small flying particles with medium velocity or medium mass	Fixed or mobile screens, exhaust systems, dust extractors, water	Medium impact (marked I) <b>Note:</b> High impact (marked V) will give greater protection
Use of explosive powered tools	High velocity particles	Fixed or mobile screens	High impact (marked V)
Timber sanding, textile trades, some chemical works, leather buffing	Airborne dusts	For indoor work - exhaust systems, dust extractors, suction conveyors For outdoor work - damping down of work area, sealing of dusty surfaces, use of large fixed or mobile screens	Dust resistant (marked D) gas resistant (marked G)
Pickling baths, metal cleaning, plating, handling corrosives	Liquid splash of harmful liquids and corrosives	Screens, catchments, splashguards, overflows, tilting apparatus and splash trays	Splash resistant (marked C)
Chemical processes, spray painting, aerosols	Hazardous gases or vapours	Enclosures and exhaust systems, screens, catchments	Gas resistant (marked G)
Chemical processes, spray painting, aerosols	Hazardous liquid splashes	Splashguards, overflows, tilting apparatus and splash trays	Splash resistant (marked C)
Welding, cutting, brazing, furnace work	Visible, Ultra Violet and Infra Red radiation	Fixed or mobile screens	Marked in accordance with <a href="#">AS/NZS 1338 Parts 1, 2 or 3</a> as appropriate. Welding goggles or welding helmets with rearward facing indirect ventilation
Manual chipping, riveting, spalling, hammering, handling wire and brick cutting	Flying fragments and objects with low velocity or low mass	Fixed or mobile screens	Low impact <b>Note:</b> Medium impact (marked I) and high impact (marked V) will give greater protection
Machine disc cutting of materials, scaling, grinding and machining metals, certain wood working operations, stone dressing	Small flying particles with medium velocity or medium mass	Fixed or mobile screens, exhaust systems, dust extractors, water	Medium impact (marked I) <b>Note:</b> High impact (marked V) will give greater protection
Use of explosive powered tools	High velocity particles	Fixed or mobile screens	High impact (marked V)

**Q3 Table 2 - Recommended eye protectors to control residual risk**

Identification of eye protector and eye protector marking (See AS/NZS 1337)	Type of eye protector	Purpose and application of eye protection
<b>Low Impact</b>		
Low impact	Safety spectacles, including side shields to provide additional protection	Frontal protection to the eyes from low energy flying fragments and objects. Tinted lenses will provide a degree of protection from glare. Metal frames not suitable for electrical hazards.
	Wide vision goggles, with direct ventilation	Frontal protection to the eyes from low energy flying fragments and objects. Tinted lenses will provide a degree of protection from glare. Metal frames not suitable for electrical hazards. Some types may be worn over prescription spectacles.
	Face shield, including neck guard to provide additional protection	Protection provided to eyes, face, forehead and front of neck from low energy flying fragments and small particles. Tinted lenses will provide a degree of protection from glare.
Low impact [marked C - splash resistant - optional] [marked D - dust resistant - optional]	Wide vision goggles, with indirect ventilation	Frontal protection to the eyes from low energy flying fragments and objects. Tinted lenses will provide a degree of protection from glare. Metal frames not suitable for electrical hazards. Splash or dust protection where marked.
	Hood and helmet incorporating an eye shield or face shield	'All round' protection to the eyes, head and neck from flying fragments and small particles. Respiratory protection may be provided (see <a href="#">AS/NZS 1715</a> and <a href="#">AS/NZS 1716</a> ). Splash or dust protection where marked.
<b>Medium Impact</b>		
Medium impact [marked I - medium impact resistant]	Wide vision safety spectacles incorporating side protection	Frontal and side protection to the eyes from medium energy flying particles. Tinted lenses will provide a degree of protection from glare.
	Wide vision goggles, with direct and indirect ventilation	'All round' protection to the eyes from medium energy flying particles. Tinted lenses will provide a degree of protection from glare.
	Face shield, including neck guard to provide additional protection	Provide protection to the eyes, face, forehead and front of neck from medium energy flying particles. Tinted lenses will provide a degree of protection from glare.
	Hood and helmet incorporating an eye shield or face shield	'All round' protection to the eyes, head and neck from medium energy flying particles. Tinted lenses will provide a degree of protection from glare.
<b>High Impact</b>		
High impact [marked V - high impact resistant]	Face shield, including neck guard to provide additional protection	Provide protection to the eyes, face, forehead and front of neck from medium energy flying particles. Tinted lenses will provide a degree of protection from glare. Also from high energy flying fragments and small particles.
<b>Specific Substances</b>		
Molten metal [marked M - molten metal resistant]	Face shield and wire mesh screens with plastic lenses, including neck guard to provide additional protection	Provide protection to the eyes, face, forehead and front of neck from medium energy flying particles. Tinted lenses will provide a degree of protection from glare. Also providing protection from molten metal and hot solids.
Splashes [marked C - splash resistant]	Wide vision goggles, with indirect ventilation	Frontal protection to the eyes from low energy flying fragments and objects. Tinted lenses will provide a degree of protection from glare. Metal frames not suitable for electrical hazards. Splash or dust protection where marked and also providing protection from harmful liquids.
	Face shield or hood	Protection provided to eyes, face, forehead and front of neck from low energy flying fragments and small particles. Tinted lenses will provide a degree of protection from glare. OR 'All round' protection to the eyes, head and neck from flying fragments and small particles. Respiratory protection may be provided (see <a href="#">AS/NZS 1715</a> and <a href="#">AS/NZS 1716</a> ). Splash or dust protection where marked, and also providing protection from harmful liquids and splashing materials.
Dust [marked D -dust resistant]	Goggles, all types, with indirect ventilation	Frontal protection to the eyes from low energy flying fragments and objects. Tinted lenses will provide a degree of protection from glare. Metal frames not suitable for electrical hazards. Splash or dust protection where marked and also providing protection against dust particles and aerosols.
Gas [marked G - gas resistant]	Goggles, all types, without ventilation	Frontal protection to the eyes from low energy flying fragments and objects. Tinted lenses will provide a degree of protection from glare. Metal frames not suitable for electrical hazards. Splash or dust protection where marked and also providing protection against harmful gases and vapours.

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**Q3 Table 2 - Recommended eye protectors to control residual risk (Continued)**

Identification of eye protector and eye protector marking (See AS/NZS 1337)	Type of eye protector	Purpose and application of eye protection
<b>Specific Substances</b>		
Non-ionising radiation [marked with Shade No.]	Safety spectacles with filter lenses and opaque side shields	Depending on filter used will provide protection, e.g. for welders' assistants against ultraviolet or infrared radiation. (a) <a href="#">AS 1338.1</a> , Table 2.2 for gas welding filters (up to shade 3). (b) <a href="#">AS 1338.2</a> for ultraviolet filters. (c) <a href="#">AS 1338.3</a> for infrared filters.
Non-ionising radiation [marked with Shade No.]	Goggle, opaque frames, with indirect ventilation	Depending on filter used will provide protection for gas welding and ultraviolet or infrared radiation. For recommended filters, see (a) <a href="#">AS 1338.1</a> , Table 2.2 for gas welding filters (b) <a href="#">AS 1338.2</a> for ultraviolet filters (c) <a href="#">AS 1338.3</a> for infrared filters
	Welding helmets all types and hand shields	Depending on filter used will provide protection for arc welding. For recommended filters, see <a href="#">AS 1338.1</a> for Arc welding filters.
Laser	Safety spectacles or goggles, incorporating optical filters	See <a href="#">AS/NZS IEC 60825.14</a> Safety of laser products – part 14: a user's guide.
Ionising radiation (Beta only)	Safety spectacles made of polycarbonate or other plastic	Plastic lens will provide significant absorption of beta radiation. See <a href="#">AS 2243.4</a> Safety in Laboratories, part 4, Ionizing Radiations

**Q4 What instruction may be needed for eye protection?**

Workers may need to be instructed by their Manager/Supervisor or by the person directing the work, on the nature of the work and how to implement the control measures. The instruction includes the selection of eye protection of a suitable size, fit and comfort for the individual, prior to commencing the task/activity.

Instruction could be provided either:

- during the local induction if the task/activity is conducted on a regular basis; or
- prior to conducting the activity if it is a new task/activity.

**Q5 What are the maintenance requirements for eye protection?**

Where workers are required to wear eye protection, the School/Branch is required under WHS Regulation 44 to ensure that the equipment is maintained, repaired and/or replaced so that it continues to minimise the risk to the worker who uses it. This includes ensuring that the PPE is clean and hygienic.

Where a maintenance regime for any PPE exists, refer to [HSW Chapter Schedule of Programmable Events](#). A pre-use inspection should always be conducted to ensure that the PPE is in good working order.

**Q6 Where can I obtain further information?**

- The University's [HSW Handbook Chapter Hazard Management](#) which outlines the application of the hierarchy of control measures (i.e. Elimination, Substitution, Engineering/Isolation, Administration and PPE);
- [WHS Regulations 2012 \(SA\)](#);
- [AS/NZS 1336 "Recommended practices for occupational eye protection"](#);
- [AS/NZS 1337.0 \(Int\): 2010 "Personal eye protection – Eye and face protectors – Vocabulary"](#);
- [AS/NZS 1337.4: 2011 "Personal eye protection – Filters and eye-protectors against laser radiation \(laser eye-protectors\)"](#);
- [AS/NZS 1337.5: 2011 "Personal eye-protectors for adjustment work on lasers and laser systems \(laser adjustment eye-protectors\)"](#);
- [AS/NZS 1337.6: 2012 "Personal eye protection – Prescription eye protectors against low and medium impact"](#);
- [AS/NZS 1338 "Filters for eye protectors"](#).

Appendix A – Examples of approved safety signs

This is a sample of some approved safety signs under [AS 1319 \(1994\) "Safety signs for the occupational environment"](#).

You must ensure any signage you purchase or install meet this standard.

Please consult AS1319 or [Human Resources](#) if you require any advice on selecting approved signage.



Gloves Required



Safety Goggles Required



Half-face Respirator Required



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