



## 3.25 Personal Protective Equipment (PPE)

### Hand 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 a hand 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 hand 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 hands. Refer [WHS Regulations 2012 \(SA\) \[36\]](#).

Generally this would be applied as a result of:

- the School/Branch mandating the use of hand 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.
- a risk assessment for a task or process, e.g. the use of hazardous chemicals where specific PPE would be prescribed to manage the hazard e.g. type of goggles, gloves, face shield, hood or helmet, screens or exhaust systems. This risk assessment should take into account the environment that the worker is in e.g. communicating with others in the area who may also need to wear PPE.

Where hand protection is mandatory in 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](#).

#### Q2 What are the limitations of gloves?

Users of gloves must be aware of their limitations.

- Like all types of PPE, they are only effective if the user remembers to wear them.
- Gloves that are designed to protect against initial splashes may not be suitable for immersion in a substance, or contact with it for long periods of time.
- Gloves may interfere with the wearer's dexterity and tactile sensation.
- Gloves can become contaminated and if not removed prior to contact may cause contamination of other objects.
- Some gloves will degrade over time. Please be aware of this and change gloves at suitable intervals when necessary.
- Domestic 'washing up' gloves including gloves complying with [AS/NZS 2161.2 \(2005\) "Occupational protective gloves – general requirements"](#), but marked 'for minimal risks only' have limited application beyond simple dishwashing situations. They may, in fact, increase the health hazard as some solvents will quickly permeate the glove material and expose the skin to a high vapour concentration.
- Not all gloves are compatible with all chemicals. See question 4 for more information.

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**Q3 Can gloves cause an allergic reaction?**

Glove material may cause an allergic reaction in the case of some wearers, for example, the proteins in natural rubber latex. If you experience a reaction to gloves, please report this to your supervisor as an incident. Alternative glove materials can be arranged.

**Q4 What types of gloves are available and how do I know which type of glove to select?**

The choice of glove will depend on several factors, including the substances being worked with and the task performed. Typically gloves can be categorised as providing protection in three ways:

- Protection from hazardous substances;
- Protection from mechanical hazards e.g. cuts; and
- Protection from biological hazards.

Note that one type of glove may not be suitable for all types of anticipated hazard that may occur together and so multi-gloving may be necessary for protection against different mechanical hazards, e.g. an absorbent liner for perspiration or a cut-proof liner in surgical gloves.

To ensure the most appropriate glove is provided for the tasks and the environmental conditions, it is important to consider:

- the hazard(s) and the need for protection;
- the level of manual dexterity required;
- material suitability to give the protection required;
- style and a good fit;
- potential for adverse ramifications from the selection (e.g. a result of style, fit or material);
- whether re-useable or disposable gloves are appropriate;
- acceptance by wearers, e.g. cultural differences may rule out the use of materials such as pigskin; and
- maintenance requirements.

The Ansell Chemical Resistance Guide for gloves (SpecWare) provides information on glove selection for using many substances. It can be accessed via the [Ansell website](#). Chemical specific glove selection is also found in the Safety Data Sheet (SDS) for the chemical.

It is important that you consider the critical aspects of use and the type of glove likely to suit the work and environmental conditions.

In [AS/NZS 2161.2 \(2005\) "Occupational protective gloves – general requirements"](#):

(Please note that due to the size of the tables within the stated appendixes they have not been included in this document.)

- Appendix A gives specific advice on choosing gloves where protection against chemicals is required;
- Appendix B gives advice on the correct fitting of gloves; and
- Table 1 offers general guidance on the choice of glove as a function of commonly encountered hazards.

**Q5 What instruction may be needed for hand protection?**

Where a risk assessment control measure includes the requirement to wear or use hand protection, it is important that workers are instructed by their Manager/Supervisor or the person who is directing the work, on the nature of the work and how to implement the control measures. This will also include the selection of a suitable size, fit and comfort for the individual, prior to commencing the activity. This instruction could be provided 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.

**Q6 What are the maintenance requirements for hand protection?**

Where workers are required to wear hand 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.

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**Q7 Where can I obtain further information about hand protection?**

- 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 2161.1 \(2000\) "Occupational protective gloves -Selection, use and maintenance"](#).
- [AS/NZS 2161.2 \(2005\) "Occupational protective gloves – General requirements"](#)
- [AS/NZS 2161.3 \(2005\) "Occupational protective gloves – Protection against mechanical risks"](#)
- [AS/NZS 2161.4 \(1999\) "Occupational protective gloves - Protection against thermal risks \(heat and fire\)"](#)
- [AS/NZS 2161.5 \(1998\) "Occupational protective gloves – Protection against cold"](#)
- [AS/NZS 2161.7.1 \(1998\) "Occupational protective gloves – Protection against cuts and stabs by hand knives – chainmail gloves and arm guards"](#)
- [AS/NZS 2161.7.2 \(2005\) "Occupational protective gloves – Protection against cuts and stabs by hand knives – Gloves and arm guards made of material other than chainmail"](#)
- [AS/NZS 2161.7.3 \(2005\) "Occupational protective gloves – Protection against cuts and stabs by hand knives – Impact cut test for fabric, leather and other materials"](#)
- [AS/NZS 2161.8 \(2002\) "Occupational protective gloves – Protection against ionizing radiation and radioactive contamination"](#)

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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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