

Hazard Management Procedure

Information Sheet: Basic laboratory and workshop safety

Purpose

The purpose of this information sheet is to support a consistent approach to basic laboratory and workshop safety, to minimise the risk of injury/illness and to meet the requirements of the [Hazard Management Procedure](#).

Q1 What should supervisors of workers using a laboratory or workshop do?

Supervisors must ensure that all workers under their supervision using the laboratory or workshop are aware of the hazards in the laboratory or workshop and the controls/processes they must follow to work safely in that area. This includes ensuring:

- there are risk assessments where required and the person is aware of these and the controls they stipulate (e.g. use of guarding, personal protective equipment, emergency procedures such as use of spill kits/gas alarms, use of fume cupboards, etc)
- there are safe operating procedures (SOPs) where required and the person is aware of these and the operator instructions they stipulate
- workers know the location of safety data sheets, risk assessments and SOPs (e.g. lab or workshop manual)
- that all information, instruction and training required to work safely in the area or conduct the task safely is identified, and
- that tasks do not commence or access to the area is not granted until the required information, instruction or training is provided.

Refer to the [Hazard Management Procedure](#) and [Information, Instruction and Training Procedure](#) for further information.

Q2 What should workers do before undertaking a hazardous process or using hazardous laboratory/workshop equipment?

Prior to undertaking a hazardous process or using any equipment in a laboratory or workshop, it is necessary to take the following steps:

- Review any paperwork associated with the task such as risk assessments, safety data sheets, and safe operating procedures. If these documents are not available, discuss completing a risk assessment with the supervisor before starting the activity. The [Hazard Management Procedure](#) provides more information on conducting a risk assessment.
- Ensure workers are competent to complete the tasks required, which may involve completing relevant training, holding the necessary permits or certificates, and participating in proficiency training programs. The training should cover contingency arrangements, such as using safety equipment recommended in safety data sheets, emergency eyewash or showers, and who to contact in case of an emergency, such as Security or emergency services.
- Conduct a pre-start check of the work area to ensure that it is in good order, the equipment is in good working condition, calibration records are valid (if applicable), required personal protective equipment is available, emergency equipment is available (if applicable), and other control measures are in place.
- Implement the control measures identified in the risk assessment and follow the safe operating procedure (if applicable).
- Gain approval from the relevant manager/supervisor if working alone and out of hours or unsupervised.

Refer to the [Hazard Management Procedure](#) and [Information, Instruction and Training Procedure](#) for further information.

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Q3 To minimise the risk of injury, what type of clothing is suitable or not suitable for a laboratory/workshop?

Suitable	Unsuitable
Sturdy closed in footwear (e.g. boots, runners, closed shoes).	Bare feet, thongs, opened heeled shoes, sandals or any shoes which exposes parts of the foot to direct exposure to hazardous material. Any shoes where an injury would result if an object were dropped on them.
Clothing which cannot be entangled in plant/equipment or pose any other foreseeable hazard.	Unsecured loose clothing or items which may become entangled or pose a hazard e.g. jewellery, lanyards and ties.
Clothing that covers your skin (when using chemicals).	Any clothing which allows direct exposure to the skin from a hazardous chemical.
Hair ties to restrain long hair.	Unsecured loose hair which may become entangled or pose a hazard.
Personal protective equipment (PPE) in accordance with the safe operating procedure/risk assessment and the laboratory/workshop rules - as covered in induction or as signposted.	Lack of or damaged personal protective equipment (PPE).

Q4 To minimise the risk of injury, what type of general housekeeping and hygiene practices are expected in laboratories/workshops?

When working in or visiting any laboratories/workshops, it is important to follow general housekeeping and hygiene practices, which include:

- Keeping aisles and exits free from obstructions and ensuring that floors are tidy and dry.
- Cleaning up spills immediately, according to the safety data sheets (for chemicals) and safe operating procedures where relevant.
- Keeping benches clean and free from contaminants (e.g. chemicals, biological substances) and ensuring that sharps and unused apparatus are not stored on the bench.
- Keeping the interior of fume cupboards and nearby areas clean and clear, and not to use fume cupboards and benches as storage areas.
- Tidying up cables, power points, socket outlets to avoid slip and trip hazards.
- Ensuring that adequate warning signage (e.g. wet, slippery, rough surface, sharp edge) are in place.
- Disposing of waste into designated bins (e.g. sharp items, chemicals) and regularly emptying bins to prevent overflow of rubbish.
- Keeping access to emergency equipment (e.g. fire extinguishers, first aid kits, chemical spill kits, emergency shower and eye washes) clear and unobstructed.
- Removing gloves before touching door handles or light switches.
- Covering any open skin wounds.
- Washing hands after completing all work and before leaving the laboratory/workshop.
- Ensuring that eating, drinking or applying cosmetics does not occur in the laboratory/workshop, except where they are part of the research/teaching.
- Ensuring that food and/or drink are not stored in the laboratory/workshop, except where they are part of the research/teaching, and if so, label it specifically as such.

Q5 Are there any other general safety requirements for a laboratory/workshop to minimise the risk of injury?

The following rules are to be implemented in all laboratories/workshops:

- Access to laboratories/workshops must be restricted to authorised personnel including locking the door when leaving the area unattended (note: where the behaviour of individuals knowingly undermines this important control, action may be taken using the University's misconduct procedure).
- Wear requested personal protective equipment (PPE) before commencement of tasks.
- Personal effects should be stored away from laboratory/workshop work areas.
- Do not dispose of hazardous materials down the drain or in general waste, all waste must be disposed of in accordance with Safety Data Sheets (SDS), University requirements or specific school laboratory rules.
- Do not pipette by mouth, sniff or taste chemicals.
- Do not exceed fume cupboard limits of liquids.

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- Q5 (Cont'd)**
- Do not crowd the fume cupboard with non-essential equipment and chemical containers (as this decreases the effectiveness of the fume cupboards operations).
 - Turn off all equipment not in use (where appropriate) and extinguish any open flames when not required for the work being undertaken.
 - If an experiment is required to left running overnight it must be labelled (name and out of hours contact number).

Q6 Where can I find more information on Basic Laboratory and Workshop safety

University Procedures

[Hazard Management Procedure](#)

[Information Instruction and Training Procedure](#)

[Emergency Management](#)

[Plant/Equipment Safety Management](#)

[Chemical Safety Management Procedure](#)

[Ionising Radiation Safety Management Procedure](#)

[Biological Safety Management Procedure](#)

[Personal Protective Equipment FAQs](#)

Australian Standards (Accessible through [Techstreet Enterprise](#))

(Log-in using your "a" number and password and then enter the details of the standard in the search field.)

AS 2243.1 (2021) Safety in laboratories – Planning and operational aspects

AS 2243.2 (2021) Safety in laboratories – Chemical aspects and storage

AS 4775 (2007) Emergency eye-wash and shower equipment

AS/NZS 2243.3 (2022) Safety in laboratories – Microbiological safety and containment

AS/NZS 2243.4 (2018) Safety in laboratories – Ionizing radiations

AS/NZS 2243.5 (2004) Safety in laboratories – Non-ionizing radiations – Electromagnetic, sound & ultrasound

AS/NZS 2243.6 (2010) Safety in laboratories – Plant and equipment aspects

AS/NZS 2243.8 (2014) Safety in laboratories – Fume cupboards

AS/NZS 2243.9 (2009) Safety in Laboratories - Recirculating fume cupboards

If you require further information or advice, contact the [HSW Team](#).

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