

Basic Laboratory and Workshop safety

Information Sheet

Purpose

The purpose of this Information sheet is to ensure that there is 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](#) chapter of the HSW Handbook.

Q1 What should workers do before undertaking a hazardous process or using hazardous laboratory/workshop equipment?

Prior to undertaking a hazardous process or using laboratory or workshop equipment the worker is to:

- review or develop any paperwork associated with the task. This could involve a review of any existing Risk Assessments (RA) and Safe Operating Procedures (SOP), if applicable. Or if not already held, completing a risk assessment. (Refer to your Manager/Supervisor or refer to the [Hazard Management chapter](#) of the HSW Handbook for further information on how to conduct a risk assessment).
- be provided with instruction/training in accordance with the risk assessment. Instruction/training should include any relevant contingency arrangements i.e. the use of any essential safety equipment including spill kits, emergency eyewash/shower and who to contact in an emergency situation (e.g. Security, Emergency Services);
- implement the control measures identified in the risk assessment and follow Safe Operating Procedures (if applicable); and
- gain approval from the relevant Manager/Supervisor if working alone and out of hours or unsupervised.

Q2 In order 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 chemicals. Any shoes where an injury would result if an object is 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. Items such as jewellery, lanyards and ties.
Clothing that covers your skin is required to be worn when using chemicals.	Any clothing which allows direct exposure to the skin from a hazardous chemical.
Using 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 SOP/RA and the laboratory/workshop rules as covered in induction and/or is signposted.	Lack of or damaged PPE or to ignore PPE requirements of the SOP/RA or the rules of the laboratory/workshop.

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Q3 To minimise the risk of injury, what type of general housekeeping and hygiene practices are expected in laboratories/workshops?

If working in or visiting any laboratories/workshops, please keep in mind that general housekeeping and hygiene practices are necessary, including:

- to keep aisle and exits free from obstructions and floors tidy and dry;
- to clean up any spillages immediately, in accordance with any Safe Operating Procedures where relevant;
- to keep benches clean and free from contaminants (e.g. chemicals), sharps and apparatus that are not being used;
- to keep the interior of fume cupboards and nearby areas clean and clear;
- to keep access to all emergency equipment e.g. fire extinguishers, first aid kits, chemical spill kits, emergency shower and eye washes free from obstruction;
- to cover any open skin wound(s);
- to remove your gloves before touching door handles or light switches;
- to clean work areas and equipment thoroughly after use;
- to wash your hands after completion of all work and on leaving the laboratory;
- never to eat, drink or apply cosmetics, except where they are part of the research/teaching being undertaken;
- never to store food and/or drink in laboratories/workshops unless it is for use in research/teaching. Where this is the case, then it must be specifically labelled as such.

Q4 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, please lock the door when leaving the area unattended;
- 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;
- 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; and
- if an experiment is required to left running overnight it must be labelled (name and out of hours contact number).

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

If you would like more information about Basic Laboratory and Workshop safety contact your local [HSW contact](#).

[HSW Handbook](#), Hazard Management, Personal Protective Equipment, Emergency Management, Plant/Equipment Safety Management, Chemical Safety Management, Radiation Safety Management and Biological Safety Management sections within this handbook (see Standard 3).

[Australian Standards](#) (Log-in using your “a” number and password and then enter the details of the standard in the search field.)

AS/NZS 2243.1 (2005)	Safety in laboratories – Planning and operational aspects
AS/NZS 2243.2 (2006)	Safety in laboratories – Chemical aspects
AS/NZS 2243.3 (2010)	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 cabinets
AS/NZS 2243.10 (2004)	Safety in laboratories – Storage of chemicals
AS 4125.1 (2009)	Sound laboratory practice in food and water microbiology laboratories – Premises, safety, sample management, regulatory compliance and record management.
AS 4775 (2007)	Emergency eye-wash and shower equipment

Authorised by

Associate Director, HSW

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