THE UNIVERSITY OF NOTRE DAME AUSTRALIA

Procedure:

Chemical Management

Effective: 8 March 2023

Audience: Staff and Students

Policy Category: Governance
Policy Sub-category: Health, Safety and Wellbeing

Key words:	chemical management, hazardous materials, risk management
Procedure Owner:	Pro Vice Chancellor, People and Culture
Responsible Officer:	Director, Health, Safety and Wellbeing
Review Date:	8 March 2026

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Contents

1 PURPOSE

1.1 In accordance with legislative requirements, The University is responsible for ensuring safe systems of work. The purpose of this procedure is to provide the foundation for safely managing risks to health and safety that can result from exposure to chemicals.

1.2 The procedure forms part of the University's Work Health and Safety Management System (WHSMS) and applies to any work area within the University operated and/or maintained sites or, any situation where a person working at the University may be exposed to hazardous chemicals.

2 RELATED POLICIES AND REGULATIONS

2.1 This Procedure should be read in conjunction with the following:

Legislation/National codes:

2.1.1 Work Health and Safety Act 2020 and Work Health and Safety (General) Regulations 2022, WA

2.1.2 Work Health and Safety Act 2011 and Work Health and Safety Regulations 2017, NSW

2.1.3 Occupational Health and Safety Act 2004 and Occupational Health and Safety Regulations 2004, VIC

2.1.4 Managing the risks of hazardous chemicals Code of Practice, SafeWork Australia

2.1.5 Managing risks of storing chemicals in the workplace Guide, SafeWork Australia

2.1.6 Hazardous Chemicals requiring Health Monitoring Guide, SafeWork Australia

2.1.7 Labelling of workplace hazardous chemicals Code of Practice, SafeWork Australia

2.1.8 Understanding Safety Data Sheets (SDS) Factsheet, SafeWork Australia

2.1.9 Storage of flammable liquids Guide, SafeWork Australia Document

2.1.10 Australian Standard 2243 series: Safety in Laboratories (chemical aspects and Storage of chemicals)

2.1.11 Placarding and manifest requirements table, SafeWork Australia

2.1.12 Chemicals of security concern, Code of practice, SafeWork Australia

2.1.13 National Security Chemicals list, SafeWork Australia

University Documents:

2.1.14 Policy: Work Health and Safety

2.1.15 Policy: Critical Incident Management

2.1.16 Procedure: Critical Incident Management

2.1.17 Guide: Safety Hazard Risk Management

3 ROLES AND RESPONSIBILITIES

3.1 In accordance with Work Health and Safety Regulations (NSW and WA Chapter 7 Hazardous Chemicals and Victoria PART 4.1 Hazardous Substances), chemical safety management is a shared responsibility at the University of Notre Dame Australia.

3.2 The **Vice Chancellor** with the **Senior Management Group** (SMG) are responsible for ensuring that legislation relating to hazardous chemicals is addressed within their faculty/division through general oversight and the allocation of appropriate resources.

3.2.1 Oversight is achieved by consulting with responsible staff within their faculty/division and by monitoring and reviewing quarterly Health Safety and Wellbeing (HSW) data and reports, such as: incident/accidents, workplace inspection (WPI) completion rates, workers compensation injuries, audit report recommended action close outs and chemical awareness training completion data.

3.2.2 SMG members will ensure adequate resourcing for appropriate support strategies and risk control plans that relate to chemical safety management in accordance with financial delegations and approvals.

3.3 Directors and Heads of School are responsible for ensuring the implementation of the requirements of this procedure within their area of responsibility. This is achieved through:

3.3.1 Reviewing the need for and effectiveness of corrective actions when indicated.

3.3.2 Regularly communicating with their team(s) regarding health and safety maters.

3.3.3 Ensuring activity risk assessments are undertaken.

3.3.4 Thoroughly reviewing local area health and safety reporting, such as incidents/accidents, WPI reports, and recommended action closeouts.

3.3.5 Monitoring chemical awareness training and induction completion rates where applicable; and

3.3.6 Ensuring chemical management expenditure is captured in budget planning.

3.4 Managers and Supervisors of laboratories, workshops, chemical stores and/or where hazardous chemicals are used and stored are responsible for ensuring the following, in the work areas under their control and influence:

3.4.1 Appropriate acquisition, use, PPE, labelling, storage, emergency preparedness, transportation and disposal of hazardous chemicals processes are in place.

3.4.2 Considering the need for and ensuring health monitoring occurs when indicated for themselves and the people they manage/supervise.

3.4.3 Regular workplace inspections and completion of corrective actions occurs.

3.4.4 Safe operation and maintenance of equipment and plant.

3.4.5 Employees have input into the development of safe systems of work through consultation on hazardous chemicals in the workplace.

3.4.6 Risk assessments and associated safe work instructions (SWI)/safe work procedures (SWP) where the need is identified, are completed in consultation with workers.

3.4.7 Required personal protective equipment (PPE) is available, used, stored, and maintained appropriately.

3.4.8 An Hazard Information poster is displayed indicating the contact person, their details, PPE requirements and access restrictions for all wet laboratories and workshops.

3.4.9 Employees are provided with the relevant, most up to date information, training, induction and resources for the emergency preparedness, storage, safe handling and disposal of hazardous substances and dangerous goods in their work area.

3.4.10 Monitoring of competency and appropriate behaviours of their team members and visitors in relation to chemical management.

3.4.11 Consider the need for and ensuring environmental monitoring occurs when indicated for the areas under their control and influence.

3.4.12 An up-to-date chemical hazard risk register for the work area(s) under their control and influence is in place, readily accessible and the location is shared with the hazardous chemical users.

3.4.13 The local chemical hazard risk register is reviewed at least each semester and any updates are shared with the HSW team.

3.4.14 Employees/contractors/students/visitors are instructed to report all injuries and incidents (including chemical accidental exposures, spills or leaks) promptly.

3.4.15 Managers follow up to ensure the closeout of any corrective actions, following an injury or incident report.

3.4.16 Regularly reviewing chemical stock to identify surplus or expired chemicals and arranging safe disposal.

3.4.17 Routine, walk through inspection of chemical containers and storage locations to identify potential leaks, degraded container conditions, or other deficiencies that can lead to leaks or spills and remedy accordingly.

3.4.18 GHS compliant labelling of chemical containers in their work areas; and

3.4.19 Chemicals are stored in appropriate locations and cabinets, in accordance with this procedure.

3.5 Academic Supervisors/Research leads are responsible for the following when they are teaching or doing research that involves hazardous chemicals:

3.5.1 Ensure that their students and team members are aware of the risks and controls associated with hazardous chemicals in use.

3.5.2 Consider the need for and ensure health monitoring occurs when indicated for themselves and the people they supervise.

3.5.3 Ensuring equipment and plant their team uses is operated safely and to report any issues or non-compliance to the technical team lead for the area promptly.

3.5.4 Completing, in consultation, risk assessments and safe work instructions (SWI)/safe work procedures (SWP) and other information documents where the need is identified.

3.5.5 Ensuring that their students/team members are provided with the relevant, up to date information and training.

3.5.6 Ensuring the competency and appropriate behaviors of their students/team members in relation to chemical management.

3.5.7 Ensuring that they, their students and team members report all injuries and incidents (chemical spill, leak, exposes) promptly to the technical manager and via the HSW incident report form; and

3.5.8 Ensuring that chemical containers that they, their students and team members use, are in good condition, have GHS compliant labels, and are handled safely.

3.6 Campus Services and **Clinical Schools' UNDA contract managers for site cleaning service** will be responsible for ensuring chemical cleaning product use and handling is compliant with this procedure. **Campus services** will also ensure The University's legislative compliance regarding site placarding and manifest requirements.

3.7 Workers, students, and others are responsible for taking reasonable care for their own and others health and safety at the workplace by:

3.7.1 Undertaking chemical safety training as required in a timely manner.

3.7.2 Engaging with the hazardous chemical risk assessment process when required.

3.7.3 Following any procedure, SWI or direction given by their manager or supervisor in relation to the acquisition, storage, safe handling, emergency response, transportation and disposal of hazardous substances.

3.7.4 Using the appropriate personal protective equipment when working with or near hazardous substances as identified in the specific hazardous substances risk assessment, or as instructed by the manager/supervisor.

3.7.5 Promptly reporting all potential hazards, injuries, and incidents (broken or poorly stored PPE, accidental exposures, chemical spill, or leaks); and

3.7.6 Participating in the health-monitoring program as required.

3.8 The **HWS Business Unit** are responsible for:

3.8.1 Providing assistance and advice regarding specific chemical related health and safety matters.

3.8.2 Updating the University on legislative changes relating to chemical management.

3.8.3 Facilitating chemical management awareness training yearly or when indicated following a reported incident.

3.8.4 Administering the Hazardous Chemicals Group on TEAMS.

3.8.5 Administering the centralised Chemical Hazard Risk Register.

3.8.6 Assisting with health monitoring advice and confidential storage of health reports as required.

3.8.7 Assisting with providing contact details or arranging for specialists e.g., Occupational physician and/or Occupational hygienist services.

3.8.8 Management of HSW records relating to chemical register, training, health monitoring and incidents.

3.8.9 Overseeing the UNDA workplace inspection (WPI) program.

3.8.10 Undertaking audits at high risk facilities to ensure compliance with legislative requirements and this procedure.

3.8.11 Oversee and assist with closeout of external audit recommended action items; and

3.8.12 Assisting with the review, implementation, and monitoring of this Procedure.

3.9 The **Hazardous Chemical user Group (HCG)** are responsible for:

3.9.1 Keeping up-to-date and accurate GHS compliant records of their component of the University wide chemical hazard risk register that is located in the HCG (TEAMS) site.

3.9.2 Monitoring and contributing to the consultation platform in place (TEAMS) by sharing information, raising concerns, and working to resolve health and safety issues relating to chemical management; and

3.9.3 Implementing HSW chemical management initiatives disseminated via UNDA information platforms.

3.10 The current HCG consists of the following: HSW Coordinator, HSW Senior Advisor, and the UNDA technical team involved with chemical use and storage. This technical team consists of managers and coordinators of laboratories, workshops and chemical stores and identified HSRs and academics familiar with and using chemicals.

4 CHEMICALS - DESCRIPTION

4.1 A Chemical is a distinct compound or substance, especially one which has been artificially prepared or purified and that can be classified according to their safety hazards.

4.2 The hazards can be divided into:

4.2.1 Physical safety hazards - substances that can cause fire, explosion or burns to skin or property.

4.2.2 Chemical health hazards - substances that are hazardous to health when they enter the human body in sufficient quantity e.g., carcinogens, corrosives, toxic substances, irritants, and sensitisers.

4.3 The main routes of exposure are inhalation (through the lungs), ingestion (through the stomach), absorption (through skin contact), and accidental puncture of the skin with

contaminated sharps. The chemical form could be liquid, dust, fumes, mists or vapours, which also affects exposure.

5 PURCHASING

5.1 Hazardous chemicals purchasing and approval

5.1.1 The laboratory/workshop technical team manager/supervisor approves chemical purchases for their laboratory/workshop.

5.1.2 Technical team members, teaching and learning academics and lead investigators, are to consult the applicable work area technical lead, regarding any proposed hazardous chemical purchase. This is to ensure economy of scale, and that any specific registration, use, storage, emergency preparedness or disposal requirements can be met.

5.2 It is important that in all instances when a new hazardous chemical is proposed for purchase the following information and action is addressed:

5.2.1 Obtain from the prospective supplier an SDS for the hazardous chemical.

5.2.2 Discuss the proposed introduction of a new substance with the workers that will be using it.

5.2.3 Consider if a safer alternative substance can be utilised to do the same job.

5.2.4 Undertake a fundamental risk assessment in order to determine the level of risk associated with the chemical, this is to be performed using information, contained in the SDS, on the product label and other information based on the intended use of the chemical. Consider risk control measures.

Note: If, upon initial risk assessment, it is found that the hazardous chemical will be used within the scope of the SDS and if the risk is "not significant", this fact should be recorded and no other action need be taken. If the hazardous chemical will be used in a way that is not within the scope of the SDS and the risk cannot be controlled in accordance with the information outlined in the SDS then completion of a detailed written risk assessment is required.

5.3 Before purchasing, the approver's aim will be to keep the quantities of chemicals stored to a minimum, in accordance with day-to-day need and risk management requirements.

5.4 Restricted hazardous chemicals

5.4.1 The government maintains a list of chemicals of security concern. Detailed information is available from the Australian Government Department of Home Affairs Chemicals of Security Concern website.

5.4.2 During any instance where chemicals of security concern are to be ordered, suspected of being lost, stolen or misused please inform your manager and contact the Director HSW immediately.

5.5 Scheduled medicines and poisons

5.5.1 The Poisons Standard is also referred to as the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

5.5.2 Scheduling is a national classification system that controls how medicines and poisons are made available to the public. The Schedules are published in the Poisons Standard and are given legal effect through state and territory legislation.

5.6 Laboratory/workshop technical team Managers and Supervisors are to ensure they understand any requirements associated with scheduled medicines and poisons in their work areas.

6 RISK MANAGEMENT IN CONSULTATION

6.1 Requirement for a detailed RAMP

6.1.1 If the hazardous chemical will be used in a way that is not within the scope of the SDS and the risk cannot be controlled in accordance with the information outlined in the SDS then a detailed general activity risk assessment management plan (RAMP) is required to be completed.

6.1.2 The RAMP can be completed by any person with sufficient knowledge and skills to evaluate the health risks to workers, students and visitors arising from an activity involving the use of the hazardous chemicals.

6.1.3 Whenever possible the RAMP needs to be completed in consultation with those expected to undertake the chemical related activity.

6.2 A RAMP may also be necessary where the following applies:

6.2.1 there is uncertainty about the degree of risk,

6.2.2 there is a significant risk to health, for example, exposure to a hazardous substance may be high and/or the nature of the health hazard is serious, or

6.2.3 more complex chemical processes and/or exposures are involved.

6.3 When developing the activity RAMP involving the use of chemicals, the following should be considered:

6.3.1 items such as use of a fume hood,

6.3.2 local first aid kit content and officers available for response,

6.3.3 PPE requirements and the type and size of spill response kit required,

6.3.4 provision of appropriate fire protection and fighting equipment,

6.3.5 establish that containers are suitable and have GHS compliant labelled,

6.3.6 establish appropriate storage location,

6.3.7 establish the pre and post activity cleaning regime required,

6.3.8 establish location of the A-Z SDS folder and that the required SDS are in place,

6.3.9 establish if and when environmental and personal health monitoring takes place,

6.3.10 establish what training is required and what training has been provided to users,

6.3.11 response actions required in the case of plant and or machinery failure.

6.4 Specialist knowledge may be needed to complete the assessment e.g. occupational hygienist for air or ventilation/engineering advice or a toxicologist or occupational health physician. The HSW business unit can be contacted via Safety@nd.edu.au to assist with providing contact details or to help arrange for specialists.

6.5 The hazardous chemical RAMP will help determine if Health Monitoring is required for a particular hazardous chemical.

6.6 RAMP review

6.6.1 Review involves monitoring control measures day to day and more formal review and evaluation of controls if there is a significant change in process, an incident occurs and/or at least annually review controls to ensure that they are working as planned/required and modify as indicated.

7 LABELLING

7.1 GHS classification and labelling compliance

7.1.1 In Australia, it is mandatory to classify and label hazardous chemicals according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) 7th Revised Edition.

7.1.2 Users of hazardous chemicals can continue to use chemicals that are classified and labelled under either GHS 3 or GHS 7, provided the chemical is manufactured or imported before 1 January 2023. This applies to all labels for chemicals (primary and secondary containers) and waste containers.

7.2 All chemical users are to ensure that any decanted chemicals are labelled in accordance with GHS requirements. Detailed information is at: https://www.safeworkaustralia.gov.au/safety-topic/hazards/chemicals/labelling-hazardous-chemicals/information-hazardous-chemical-labels

7.3 A purchased hazardous chemical is correctly labelled if the chemical is packed in a container that has a label that complies with the following:

7.3.1 is written in English,

7.3.2 the product identifier,

7.3.3 the name, Australian address and business telephone number of either the manufacturer or importer,

7.3.4 the identity and proportion disclosed, in accordance with the WHS Regulations, for each chemical ingredient,

7.3.5 any hazard pictogram(s) consistent with the correct classification(s) of the chemical

7.3.6 any hazard statement(s), signal word and precautionary statement(s) that is consistent with the correct classification(s) of the chemical,

7.3.7 any information about the hazards, first aid and emergency procedures relevant to the chemical, which are not otherwise included in the hazard statement or precautionary statement; and

7.3.8 the expiry date of the chemical, if applicable.

8 HEALTH MONITORING

8.1 Health monitoring is the monitoring of a worker to identify changes in their health status because of exposure to certain substances. There are legislative requirements for health monitoring when using certain hazardous chemicals. Refer to the University's Health Monitoring Factsheet for more information.

9 CHEMICAL HAZARD RISK REGISTER

9.1 Within Faculties and Offices the managers of laboratories, workshops and chemical stores must maintain a register, of hazardous chemicals.

9.1.1 A Hazardous Chemicals Register is to be compiled using the template below:

Chemical Hazard Risk Register					
Faculty /Office:			Campus/ Clinical School/ Satellite Site Title:		
Contact person:			Date last reviewed:		
School /Dept.	Name of Chemical	Issue date of SDS (<5 years)	Quantity	Location include building ID, Room number and descriptor e.g. shelf/ flammable goods cabinet	Comments
EXAMPLE Campus services	Ethanol	19/02/2019	10 Litres	ND17, L1, Workshop, Flammable goods cupboard, shelf 1	Solvent for paints

9.1.2 Local area workers/students are to be made aware of the location of the readily accessible local chemical hazard risk register (The register).

9.1.3 The register will be reviewed and updated regularly, at least each semester.

9.1.4 Biannually, post local review, the register is to be forwarded to Safety@ND.edu.au for inclusion in the University's centralised register for reference and audit purposes.

9.1.5 The University-wide Chemical Hazard Risk Register is managed by the HSW team and is available to The Hazardous Chemicals User Group via their dedicated TEAMS page.

10 GENERAL CHEMICAL PRECAUTIONS

10.1 Chemical related precautionary action items:

10.1.1 Work must be carried out in an adequately ventilated location.

10.1.2 Chemical contamination of the work environment must be avoided.

10.1.3 Waste must be disposed of appropriately.

10.1.4 Activities that create dust, fumes or aerosols need to be minimised.

10.1.5 Eating and drinking when handling chemicals is prohibited.

10.1.6 Personal protective equipment must be worn as per the chemical's Safety Data Sheet (SDS) requirements.

10.1.7 Appropriate cleaning regime post use/spill is in place.

10.1.8 The SDS hazardous chemicals folder must be easily accessible and users knowledgeable of the chemical properties.

10.1.9 Users will be familiar with the University's Risk Management Guide.

10.1.10 Users will know the risks of a chemical before purchasing, with consideration of its need and assessment if it can be substituted with a safer product.

10.1.11 When assessing health and safety risks associated with the storage, use or handling of a hazardous chemical, the following points should be considered:

a) the routes of entry by which the chemical can affect a person's health,
b) the physical form and concentration,
c) the chemical and physical properties of the substance,
d) determining who could be exposed and when this could occur,
e) how often is exposure likely to occur and for how long,
f) what is the estimated exposure to the hazardous chemical; and
g) exposure standards for the chemical.

10.2 Elimination, substitution, and isolation are the preferred methods of controlling the risks of exposure to hazardous substances. After exhausting those routes, engineering and administrative controls should be implemented before relying on personal protective equipment. Choose the correct type of PPE based on advice from the SDS.

10.3 Routinely conducting inspections of chemical containers and storage locations will identify potential leaks, degraded container conditions, or other deficiencies that can lead to leaks or spills.

10.4 Housekeeping

10.4.1 Good housekeeping practices can significantly reduce the risk of accidents (including fire) and accidental exposure to hazardous materials. Spills and accidents are more likely to occur in cluttered workspaces.

10.4.2 Work surfaces are to be cleaned prior to and post chemical related activity

10.4.3 Keeping an organised work area will also reduce costs and waste from expired or unwanted chemicals.

10.4.4 Combustible materials must not be stored close to or on top of flammable material storage cabinets.

10.4.5 Flammable materials storage cabinets are to be located 3 metres from an ignition source i.e. power sockets.

10.5 Reproductive health and working with Chemicals

10.5.1 Some hazardous chemicals may cause various toxic effects such as fertility impairments, birth defects, harm to unborn children, genetic mutations, poisoning, cancer, or other diseases. Exposure to chemicals may occur through skin absorption, ingestion, or most commonly, through inhalation of chemical aerosols.

10.5.2 Review the SDS for possible reproductive effects of hazardous chemicals handled. The Australasian Faculty of Occupational and Environmental Medicine Guide to Pregnancy and Work (November 2017) is a useful document for workers and students regarding reproductive health considerations when using chemicals.

11 STORAGE OF CHEMICALS

11.1 Proper storage of chemicals lowers the risk of adverse reactions in the event of container failure, spillage, fire, and by segregation of incompatible or reactive chemicals. The following principles should be followed when storing chemicals:

11.1.1 Store chemicals according to their class, taking into consideration incompatibilities within these classes, for example corrosives should be separated into oxidising acids (lowest shelf of an acid cabinet); mineral/organic acids (top shelf); and bases (different location).

11.1.2 If a chemical is both flammable and corrosive, store according to primary risk.

11.1.3 Store chemicals upright, and securely closed.

11.1.4 Flammable liquids should not be stored in domestic fridges.

11.1.5 Ensure containers used for decanting or making mixtures are clean and chemically resistant to the substance being used.

11.1.6 Use parafilm over the lid/neck of corrosive or toxic chemicals to prevent any leakage of vapours and corrosion within the cabinets.

11.1.7 Make sure the bund at the base of the chemical cabinet is not used for chemical storage. Chemical class cabinets required features are available at *Appendix 1.*

11.1.8 Areas where hazardous chemicals are used and stored should include secondary containment to capture the maximum possible spill. This can be in the form of permanent or temporary bunding, spill trays, secondary containers, etc. Detailed information relating to the storage of chemicals in laboratories is available through the relevant Australian Standards of note *AS2243.10 Safety in laboratories: Storage of Chemicals*.

12 PLACARDING AND MANIFEST

12.1 Legislative requirements for dangerous goods placarding at the entrance to workplaces are dependent on volumes and packaging groups of dangerous goods. A manifest is needed if the amount of a hazardous chemical in our workplace is over the manifest threshold quantity. Site Campus Services Managers are required to review the chemical hazard risk register and ensure these are in place. Please refer to the SafeWork Australia placarding and manifest requirements table for details.

13 TRANSPORTATION OF CHEMICALS

13.1 A risk assessment must be performed when hazardous chemicals and dangerous goods are to be transported. Dangerous goods during transport are subject to the Australian Dangerous Goods (ADG) Code. Minor transport of hazardous chemicals and dangerous goods for purposes such as fieldwork, must comply with the relevant safe work instruction (SWI) and SDS including segregation from foodstuffs, and labelling and signage.

13.2 Hazardous chemicals and dangerous goods should not be transported within the cabin of the vehicle.

13.3 Access to the appropriate spill kit during transportation of the hazardous chemical is required.

14 CHEMICAL DISPOSAL

14.1 Only keep what is essential to what you need in order to minimize risk.

14.2 Chemicals for disposal require GHS compliant labelling.

14.3 A licensed contractor should dispose of all unidentified, expired, and surplus chemicals and chemical waste.

14.4 Consider chemical incompatibilities when collecting waste and check SDS for details of chemical compositions, referring to the ComCare Dangerous Good Compatibility and GHS Labelling Elements Display.

15 EMERGENCIES AND CONTINGENCY PLANNING

15.1 All employees, students and contractors exposed to chemicals must be cognizant of emergency procedures. If you are unable to contain a spill, call emergency services '000' and inform Campus Security in line with the University critical response procedures.

15.2 Initiate an evacuation if necessary.

15.3 At the time of an accidental exposure/spill, please refer to relevant SDSs, SWIs, SWPs and the local emergency management plan documentation.

15.4 It is important to know the location of the nearest emergency shower and eyewash station. Be familiar with the chemical spill kits (e.g., General chemical, Mercury, Formaldehyde as indicated), firefighting equipment, and the correct usage.

15.5 Regularly review emergency instructions, at least each Semester.

15.6 The Poisons Information Hotline: 13 11 26 can be a useful resource when a person has had an accidental exposure.

15.7 All incidents are to be reported to your manager/supervisor and to the HSW team via the UNDA incident report form located on the UNDA website.

16 TRAINING AND SUPERVISION

16.1 Inductions

16.1.1 Workers, students and visitors who work and/or study in a laboratory, workshop or chemical storage and preparation areas should be appropriately inducted into these areas to ensure that they can manage risks to health and safety that can result from exposure to chemicals and to respond appropriately in an emergency situation. See table below for training requirement details.

16.1.2 Workers, students and visitors will engage in the risk management process for the activities they undertake whenever possible and have read any relevant safe work procedures (SWPs) or safe work instructions (SWIs); and can access the safety data sheet (SDS) for the chemicals in use in their work/study area.

16.2 Chemical Management Training

16.2.1 Hazardous chemical users are required to complete the *Chemical Awareness - Working Safely with Chemicals* module, available on Blackboard. It describes the hazards and risks associated with chemical use in the workplace and how to manage these risks by using the hierarchy of controls.

16.2.2 Further to completing the *Chemical Awareness-Working Safely with Chemicals* module, workers/students, will receive specific training as per the table below.

Task	Trainees	When	Responsible person	SMG member
Laboratory safety induction for students	Students	At time of first exposure to the wet lab	Teaching and learning employees/research supervisor	Oversight
Laboratory workshop or chemical storage area induction	Contractor Sub-contractor	When first exposed to a laboratory, workshop or chemical storage area	Identified manager/supervisor	
Laboratory workshop or chemical storage area	Employee	When first exposed to a laboratory, workshop or chemical storage area	Identified manager/supervisor	
Induction	Worker Student Visitor	Whenever training is conducted	Teaching and learning employees and /or Identified manager/supervisor	Oversight
Maintain records of the training delivered	University Chemical User Group	Refresher training, at least every 2 years or whenever there are either changes in the workplace legislative requirements	HSW training coordinator, UNDA HSW team	Allocate budget and oversight

16.3 Chemical Management Supervision

Workers/students will also be competency tested by their manager/supervisor or delegate.

Task	When	Responsible person	SMG member
Supervision of workers, students, visitors to ensure that this procedure is adhered to: • SDSs available and complied with • Risk assessments are undertaken for hazardous chemicals and recorded • SWI and SWP are in place when indicated via risk assessment and complied with • Emergency preparedness addressed (i.e. applicable spill kit available • Correct PPE available and stored/maintained correctly	Ongoing	Identified manager/supervisor	Oversight
Ensure that students have access to and are familiar with the relevant SDS and safe work instructions for any chemical that is used, they are adequately supervised, and they are familiar with emergency response procedures.	Ongoing	Teaching and learning employees/research supervisor	
Ensure that students are, wearing appropriate footwear, using equipment, including PPE, correctly, avoiding the consumption of food and drinks in laboratories and preparation areas.	Ongoing	Relevant technical team members/ Teaching and learning employees/research supervisor	
Ensure that visitors, including tradespeople, are appropriately supervised and are familiar with chemical hazards and risks.	Ongoing	Relevant technical team members/ Teaching and learning employees/research supervisor	Oversight

17 MONITORING AND REVIEW OF CHEMICAL SAFETY MANAGMENT

17.1 Proactive monitoring and review of chemical safety management

17.1.1 Chemical awareness training data will be reviewed quarterly against new lab students and new employee /contractor and sub-contractor numbers.

17.2 Inspections

17.2.1 Trained Health and Safety Representatives (HSRs) undertake biannual workplace inspections, which include specific checks on chemical management.

17.2.2 The local area technical team lead or delegate will, complete quarterly WPIs specific to their type of work environment as part of their usual health and safety responsibilities. Templates are available in Safety@ND for detail.

17.2.3 HSW, Campus Services and SMG members as part of general walk-throughs may conduct informal inspections.

17.3 Audits

17.3.1 The HSW team will establish an annual audit program that includes chemical management to ensure the WHSMS (including chemical management) is successfully embedded.

17.3.2 The Risk Management and Assurance Office conducts periodical WHS audits, undertaken by preferred providers as per the risk office schedule.

17.3.3 Reactive monitoring and review of chemical safety management will include analysing chemical related accident /incident data and chemical related corrective action closeout data.

18 MAINTENANCE OF ACCURATE RECORDS

18.1 The technical team manager/supervisor of each area where hazardous chemicals are present will ensure that the following record keeping is in place as evidence of their supervision and action for reference and audit purposes:

18.1.1 A folder of current SDSs for the hazardous chemicals on site (dated < 5 years).

18.1.2 Evidence of their Hazardous Chemical activity risk assessments (dated < 3 years).

18.1.3 An ‘up to date’ Chemical Hazard Risk Register for all the substances used and/or stored on the site (<6 months since last review).

18.1.4 Training records for each employee relating to hazardous chemicals management training and induction. (For students using their area the technical team manager/supervisor will liaise with teaching and learning employees/research supervisor to ensure compliance).

18.1.5 SWI/SWP for tasks relating to hazardous chemicals use, handling and disposal where activities indicate a requirement.

18.1.6 Provide assistance to academic employees/researchers to ensure their specific activities are risk managed appropriately; and

18.1.7 All local workplace inspections (WPIs) undertaken in the last 12 months (copies of HSR and local technical team completed WPIs).

19 RELATED DOCUMENTS

19.1 Additional University documents available to workers and students:

19.1.1 Fact Sheet: Health Monitoring

19.1.2 Fact Sheet: Chemical Management

19.1.3 Factsheet: Completing a Chemical Risk Assessment

19.1.4 Signage template: Hazard Information Poster

19.1.5 The University-wide Chemical Hazard Risk Register is available to The Hazardous Chemicals User Group via their dedicated TEAMS page.

19.1.6 The Australasian Faculty of Occupational and Environmental Medicine Guide to Pregnancy and Work (November 2017)

20 DEFINITIONS:

20.1 For the purpose of this Procedure, the definitions outlined in the Policy: Health Safety and Wellbeing apply.

20.2 In addition, the following definitions apply to this Procedure:

20.2.1 ***Safety Data Sheet (SDS)*** is a document that describes the properties and uses of a substance through identity, chemical and physical properties, health hazard information, and precautions for use and safe handling information.

20.2.2 ***Safe Work Instruction (SWI)*** are a set of written instructions based on a task or process which help you to perform activities safely and competently.

20.2.3 ***Safe Work Procedures (SWP)*** are usually an administrative control from a risk assessment, which is created locally to document the safest and most efficient way to perform a task or operate equipment and machinery.

20.2.4 ***The Globally Harmonized System (GHS)*** is an international system of classifying and communicating chemical hazards. It is used on chemical labels and safety data sheets.

20.2.5 ***Decant(ing)*** means to transfer a hazardous chemical from a correctly labelled container to another container within a workplace. Said container may range from a small flask in a research laboratory to a fit for purpose spray container. Decant does not include rebottling or repacking a chemical for supply to another workplace.

20.2.6 **Work Health and Safety Management System (WHSMS)** encompasses organisational processes, policies and procedures that provides clarity of health and safety requirements and responsibilities to minimise the risk of injury and illness from workplace operations.

20.2.7 **Worker** any person who carries out work for a PCBU, including work as an employee, contractor, subcontractor, self-employed person, outworker, apprentice or trainee, work experience student, employee of a labour hire company placed with a 'host employer' and volunteers.

Version	Date of approval	Approved by	Amendment
1	8 March 2023	PVC People and Culture	New procedure

21 Appendix 1:

Required features for chemical class cabinets:

DG Class	Doors	Lock	Clearance	Inner-Base Bunding
Class 3 Flammable liquids (AS 1940) 	Self-closing & close-fitting	Held shut **automatically** by catches at **2 or more points**	Minimum 3m laterally & 1m vertically (ignition)	Liquid-tight compound, at least 150mm deep, **designed to prevent the compound from being used as a storage space**
Class 5.1 Oxidising agents (AS 4326) 	Self-closing & close-fitting	Held shut by catches that **release** in the event of a build-up of pressure within the cabinet	Minimum 3m (heat)	Liquid-tight compound, at least 150mm deep, **capable of containing at least 25% of the total storage capacity**
Class 5.2 Organic peroxides (AS 2714) 	Self-closing & close-fitting with non-plastic hinges	Held shut by non-plastic catches that **release** in the event of a build-up of pressure within the cabinet	Minimum 3m (ignition)	Liquid-tight compound, at least 150mm deep, **designed to prevent the compound from being used as a storage space**
Class 6.1 Toxic substances (AS 4452) 	Self-closing & close-fitting	Lockable	N/A	Liquid-tight compound, at least 150mm deep, **capable of containing at least 25% of the total storage capacity**
Class 8 Corrosive substances (AS 3780) 	Self-closing & close-fitting	Held shut by catches at **no fewer than two points**	N/A	Liquid-tight compound, at least 150mm deep, **capable of containing at least 25% of the total storage capacity**

22 PROCESS SUMMARY:

Process Step	***Responsibility***
Oversight of procedure compliance (monitor, consider and respond to quarterly HSW board report) and allocate resources required.	Senior management group
Purchase approval (in consultation with chemical users such as teaching and research academics)	Work area technical manager/supervisor
Risk assessment for introduction of a hazardous chemical and for activities involving chemicals	Relevant technical team / teaching and learning employees/ researchers
Local area induction and supervision	Relevant technical team / teaching and learning employees/ research supervisor
Chemical Awareness - General Training Second yearly or whenever there are either changes in the workplace or legislative requirements	HSW team
Inspections Local - Quarterly Work area - Biannually	Technical team Elected HSR
Audits Annual RMAO scheduled audit	HSW team Risk Management and Assurance Office nominee