



Hazardous Chemical Safety Procedures

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1. Governing Policy

Work Health and Safety Policy

Work Health and Safety Management System

2. Purpose

These procedures set out the requirements for managing the health and safety risks associated with the use of hazardous chemicals in the University.

3. Scope

- a. These procedures apply to:
 - i. all University operations where hazardous chemicals are stored, used, produced and/or disposed
 - ii. all workers, students and visitors at all Flinders University workplaces.
- b. These procedures apply to the following products **only** if their use is related to a work activity:
 - i. food and beverages
 - ii. therapeutic goods
 - iii. cosmetics and toiletries
 - iv. tobacco and tobacco products.
- c. These procedures do not apply to the management of asbestos, biological or radioactive materials, which are covered by separate individual procedures.
- d. These procedures must be read in conjunction with the Hazardous Chemicals Manual.

4. **Definitions**

Chemicals of Security Concern	Chemicals that can be used to make homemade explosives or toxic devices as listed in the <u>National Code of Practice for Chemicals of</u> <u>Security Concern 2016.</u>
Includes Security Sensitive Ammonium Nitrate (SSAN) and Explosives	Ammonium nitrate or ammonium nitrate mixture at greater than 45% mass per mass mixed with any other substance, but not in solution.
ChemWatch	The online source of chemical information and safety data sheets (SDS) used by the University to assist with the management of hazardous chemicals.
Controlled substances (or scheduled drugs and poisons)	Substances which require licensing under the <u>Controlled Substances</u> <u>Act 1984</u> (SA), <u>Medicines, Poisons and Therapeutic Goods Act 2012</u> (NT).
Consumer product	Substances that are primarily for household use or in an office and which are used and packed in ways and quantities for household or office use.
Explosives	A compound or mixture containing those chemicals listed under the <u>Explosives Control Act 1939</u> which are used or manufactured to produce the practical effect of an explosion or a pyrotechnic effect.

Dangerous substances/goods ¹	Substances or articles that are toxic, corrosive, flammable or otherwise dangerous and defined by the Dangerous Substances legislation to be dangerous.
Exposure Standards	Exposure standard in the <u>Workplace exposure standard for airborne</u> <u>contaminants</u> which represents the airborne concentration of a particular substance or mixture that must not be exceeded.
Globally Harmonized System (GHS)	The Globally Harmonized System of Classification and Labelling of Chemicals, Revised Edition, published by the United Nations, as modified by Schedule 6 of the SA <u>WHS Regulations</u> .
Hazardous chemical	a. A substance, mixture or article that:i. can be a health or physiochemical hazard.
	 ii. satisfies the criteria for one or more hazard classes in the Globally Harmonized System (GHS), including a classification referred to in Schedule 6 of the SA <u>WHS Regulations</u>.²
	 For these procedures, hazardous chemicals also include dangerous substances, controlled substances (scheduled drugs and poisons), prohibited and restricted carcinogens, restricted chemicals and security sensitive ammonium nitrate or other security sensitive substances³ and carbon nanotubes.
Hazardous Chemicals Manifest	A written summary, primarily for emergency services, for specific types of hazardous chemicals with physical hazards, acute toxicity or skin corrosion, that are used, handled or stored at a workplace.
Hazardous chemical register	A list of the product names of all hazardous chemicals used, handled or stored at the workplace accompanied by the current Safety Data Sheet (SDS) for each hazardous chemical listed.
	Note: ChemWatch is the University-wide online system for maintaining chemicals registers and accessing Safety Data Sheets (SDSs).
Placard	A sign or notice containing information about hazardous chemicals, which is displayed in a prominent place where the chemicals are used or stored.
Placard Quantities	The quantities referred to in Schedule 11 of the SA <u>Work Health and</u> <u>Safety Regulations 2012</u> .
Precursor Chemicals	Any substance whether natural or synthetic and specified in the SA <u>Controlled Substances (Controlled Drugs, Precursors and Plants)</u> <u>Regulations 2014</u> .
Prohibited and restricted carcinogens and restricted chemicals	Chemicals which are hazardous as they may cause cancer. Note: those substances listed in the SA <u>WHS Regulations</u> (Schedule 10) and have been listed as Prohibited or Restricted Carcinogens

¹ Dangerous substances are regulated by Work Health and Safety Regulations, except for dangerous goods transport activities and gas fitting work are regulated by dangerous goods legislation.

² From 1 January 2021, all workplace chemicals must be classified according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS-7).

	require a permit from SafeWork SA (or equivalent interstate Regulator).
Safe Work Procedure (SWP)	A written document which outlines the risks associated with a work task or activity and lists the associated control measures into step-by- step instructions for conducting the work safely.
Safety Data Sheet (SDS)	 a. Document prepared by the manufacturer or importer of a chemical that provides information about uses, chemical and physical properties, health hazard information, precautions for use, safe storage and handling and emergency information. b. SDSs are obtained directly from the manufacturer or through the online ChemWatch SDS database. To be considered current they must be no more than 5 years old.
Teratogen	An agent or factor which causes malformation of an embryo.

5. Hazardous chemical safety duties

The University must manage the risks to health and safety associated with using, handling, generating, storing or disposing of hazardous chemicals at the workplace, including:

- a. ensuring correct labelling of containers, pipework, and waste items that contain hazardous chemicals
- maintaining appropriate registers and manifests, where relevant, of hazardous chemicals and notifying the regulator if the University stores manifest quantities of hazardous chemicals (see <u>Schedule 11 of</u> <u>SA WHS Regulations 2012</u>)
- c. identifying any risk of physical or chemical reaction of hazardous chemicals and ensuring their stability
- d. ensuring workplace exposure standards for hazardous chemicals, where set, are not exceeded
- e. providing health monitoring (if relevant)
- f. providing information, training, instruction and supervision to workers, students and others
- g. providing emergency and safety plans and equipment, including spill containment and clean up systems
- h. providing access for all staff, students or other to current Safety Data Sheets (SDSs) by either obtaining them from the manufacturer, importer or supplier of the chemical or via ChemWatch
- i. ensuring hazardous chemicals used, handled or stored in the workplace do not become unstable, decompose or change so as to become hazardous
- j. ensuring that ignition sources are controlled if there is a possibility of fire or explosion where flammable or combustible substances are present
- k. preparing an emergency plan if the quantity of a hazardous chemical exceeds the manifest quantity, as specified in <u>Schedule 11 of SA WHS Regulations 2012</u>
- I. ensuring the stability and support of containers for bulk hazardous chemicals, including that they are secure and bunded to prevent any damage to containers or release of material.
- m. obtaining appropriate licensing and permits where required and ensuring regulatory requirements specified are complied with.

6. Consultation

- a. Throughout the risk assessment process, managers and supervisors must consult, so far as is reasonably practicable:
 - i. workers who use, or are likely to use the hazardous chemical(s)

- ii. health and safety representatives
- iii. where relevant, students and other persons who may need to work with the chemicals.
- b. Consultation, cooperation and coordination must also occur with other businesses or organisations involved with hazardous chemicals at a University workplace (for example, those who carry out deliveries or cleaning) or who share the workplace with the University (for example, in joint research or teaching facilities).

7. Risk assessment and management of hazardous chemicals

- a. Risks to health and safety associated with all aspects of use of hazardous chemicals must be managed in accordance with WHS legislation, Codes of Practices, Australian Standards and any relevant licenses or permits, and with the University's <u>WHS Risk Management Procedures</u>, including:
 - i. before purchasing, making, using, storing, transporting, generating waste or disposing of chemicals, and
 - ii. when dealing with emergencies that may arise from chemicals.
- b. All users of chemicals must:
 - i. identify reasonably foreseeable hazards and eliminate where reasonably practicable
 - i. if it is not reasonably practicable to eliminate the risk, implement control measures to minimize the risk so far as is reasonably practicable and document in a risk assessment.
- c. The risk assessment must cover the risks posed during storage, transport, use and disposal.
- d. The highest level possible control measures must be used. When a decision is made to use lower level control options, reasons for not using higher levels of control must be documented as part of the risk assessment.
- e. Information relating to control measures should be identified from the SDS, labels, legislation, Codes of Practice and Australian Standards.
- f. Controls identified in the risk assessment must:
 - i. be checked, maintained, reviewed and, if required, changed to ensure, as far as reasonably practical, a safe work environment is maintained, and
 - ii. be reflected in any associated safe work procedure.
- g. Personal Protective Equipment (PPE) should be used as a last resort or in combination with higher level controls. Where it is identified as a suitable control, the PPE must be appropriate for the hazardous chemical. PPE must be fitted and maintained in line with manufacture instructions and appropriate information and training must be provided in its safe use.
- h. Completed hazardous chemical risk assessments, including proposed hazard control measures, must be authorised by the manager/supervisor (or nominee) of the person completing the risk assessment.
- i. Risk assessments and all associated controls specified must be reviewed every 5 years or when there is a change.
- j. Risk assessments must be kept as per the <u>WHS Recordkeeping</u> requirements by the local area (hard copy or electronic) and must be available to all workers and, where relevant, students and others who will be using the hazardous chemicals.
- k. Staff or students who are using chemicals which as indicated by the SDS, are potential agents or factor which may cause malformation of an embryo (e.g. teratogens) or may pose other risks during pregnancy or lactation, should seek medical advice prior to any use. The risks associated with these chemicals must be included in the risk assessment process.
- I. If the chemical is a Non-Hazardous Substance and a Non-Dangerous Good, and it is being used as per the manufacturer's instructions and controls specified in the Safety Data Sheet, are in place then no formal documented risk assessment or SWP is required but any risks associated with the chemicals must still be managed.

8. Safe Work Procedures

- a. Where control measures have been identified in the risk assessment, a <u>Safe Work Procedure</u> (SWP) must be developed and include the controls for the relevant task/activity involving the hazardous chemical.
- b. Storage, use, transport, disposal and any emergencies associated (e.g. spills) with the task/process must be addressed.
- c. SWPs must be reviewed every 5 years along with the risk assessment and controls or when there are any changes.
- d. SWPs (electronic or hard copy) must be kept as per the <u>WHS Recordkeeping</u> requirements and available to all workers and, where relevant, students who will be using the hazardous chemicals.

9. Safety Data Sheets (SDSs)

- a. Before using any chemicals, a current SDS must be obtained via the manufacturer, importer or supplier of the chemical or through the ChemWatch system.
- b. SDSs must be available for every hazardous chemical purchased, stored, transported or used in University activities, including at off-site locations and in field work.
- c. SDSs must be readily accessible to workers and where relevant, students or others who use the hazardous chemicals.
- d. SDS sheets must be available to the Emergency Services (Fire, Police and Ambulance) or anyone else who may be exposed or need to treat people working with hazardous chemicals (e.g. first aiders).
- e. If only electronic copies are used via ChemWatch to maintain SDSs, all workers and students in the area must know how to use the system and there must be a backup means of providing SDSs in the event of a computer or power failure.
- f. Where SDS sheets are kept as hard copies these must be kept current and no older than 5 years from the date of issue.

10. Purchasing hazardous chemicals

- a. Before purchasing chemicals, purchasers must:
 - i. obtain the SDS, check the hazards, precautions for use and storage requirements, to determine if a safer alternative can be found
 - ii. if a safer alternative is not reasonably practicable, determine all additional controls needed to be implemented
 - iii. prepare a risk assessment prior to purchasing
 - iv. check if the chemicals are classified under any of the following:
 - controlled substances (includes scheduled poisons)
 - dangerous substances
 - prohibited and restricted carcinogens
 - chemicals of security concern, including sensitive ammonium nitrate and explosives
 - prescribed or precursor chemicals
 - safeguards materials (also see the <u>Radiation Safety Policy</u>).
- b. If the above classes of chemicals are to be purchased, the specific permits or licensing required must be obtained and held by the University prior to purchase. Those staff wishing to purchase one of the above categories of chemicals for the first time must check with the WHS Unit to ensure they are covered by the relevant permit.

- c. Permits/ licenses must be approved by the University (in most cases this will be by the Vice-President (Corporate Services)), or where they are issued to an individual, they must be approved by the worker's supervisor.
- d. A copy of all permits (including those issued to individuals) must be provided to the WHS Unit.
- e. Where staff obtain chemicals under a permit/licence, they must adhere to the requirements specified on those permits/licences regarding restrictions of use, secure storage and recordkeeping.
- f. Chemicals that require a permit/licence must not be purchased or obtained via personal means.

11. Consumer products

- a. Consumer products (e.g. household cleaners, dishwashing liquids, whiteboard cleaners) that are used in the workplace only in ways and quantities consistent with household use:
 - i. do not require SDSs or risk assessments, and
 - ii. do not need to be listed in a hazardous chemicals register.
- b. Safety information on labels must be present on the container and must be followed.
- c. Labels must have sufficient information about safe use, handling and storage of the chemical and must be available to workers, students, others and emergency services.
- d. Where domestic chemicals are used in a manner or quantity different to normal household use, the <u>WHS Risk Management Procedures</u> must be adhered to, including obtaining SDSs to determine the level of risk to workers and the appropriate controls that need to be implemented.

12. Labelling

- a. All hazardous chemicals, including those purchased or produced either directly or as a by-product of work in the University, must be classified and correctly labelled in accordance with the Code of Practice Labelling of Workplace Hazardous Chemicals and the Globally Harmonised System of Classification and Labelling of Chemicals (GHS).
- b. Those purchasing chemicals must only accept chemicals from manufacturers/suppliers which are correctly labelled, including being in English, having an Australian supplier or manufacturer identified, product identifier (name or CAS number) and all required hazard statements and pictograms for the classification of the chemical.
- c. When a hazardous chemical is transferred or decanted from a supplier's container and is not used immediately, the container must be labelled in accordance with the Code of Practice <u>Labelling of</u> <u>Workplace Hazardous Chemicals</u>, including all relevant hazard information and hazard signage (pictogram).
- d. Re-used containers must have the old label removed or totally covered with the new label.
- e. Food and beverage containers (e.g. drink bottles, jars) must never be used for chemical storage.
- f. Waste containers containing hazardous chemicals must have appropriate labels including being written in English, product identifier (name or CAS number) and have the required hazard statements and pictograms.
- g. Hazardous chemicals contained in an enclosed system (e.g. a pipe or piping system) must be identified by a label, sign or markings on the pipework in accordance with AS 1345-1995 Identification of the contents of pipes, conduits and ducts.

13. Hazardous chemicals register

- a. Each laboratory/workshop/area that uses chemicals must maintain a chemical register on ChemWatch which includes:
 - i. a list of the product names of all hazardous chemicals used, handled or stored in that area
 - ii. the current SDS for each hazardous chemical listed.

- b. Registers must be readily accessible to workers and others involved in using, handling or storing hazardous chemicals and to anyone else who is likely to be affected by a hazardous chemical in the area.
- c. Registers must be updated as new hazardous chemicals are introduced to the workplace or when the use of a hazardous chemical is discontinued, or at a minimum reviewed every 12 months.
- d. Chemical registers must be available to Emergency Services if requested.
- e. Contractors who use hazardous chemicals must keep on site at a convenient location a copy of their register of the hazardous chemicals being used.

14. Hazardous chemicals manifest and placarding

- a. A manifest must be prepared and kept up-to-date where the quantities of Schedule 11 hazardous chemicals are present at the workplace and where they exceed specified quantities (see <u>WHS</u> <u>Regulations Schedule 11</u>
- b. Manifests must be available to emergency services personnel as required.
- c. The University must ensure that an outer warning placard(s) are prominently displayed at the workplace if the total quantity of a Schedule 11 hazardous chemical or group of Schedule 11 hazardous chemicals used, handled or stored at the workplace exceeds the placard quantity for the Schedule 11.

15. Induction, training and supervision

- a. Supervisors must provide workers and, where relevant, students and others, with a local WHS induction relevant for the laboratory, workshop or studio and any processes they will use.
- b. Sufficient information, training and supervision must be provided to workers, students and visitors to enable them to work safely with hazardous chemicals. This must include information about the nature of the hazard and the controls in place to manage the risks.
- c. The local area must keep training records in accordance with WHS Recordkeeping

16. Incidents involving chemicals

- a. All incidents or accidents involving hazardous chemicals must be reported in FlinSafe and investigated in accordance with the Accident, Incident and Hazard Reporting and Investigation Procedures.
- b. Any incident:
 - i. that involves an uncontrolled release of a hazardous chemical/substance, or
 - ii. where a person receives medical treatment within 48 hrs of exposure to a chemical/substance

is deemed a <u>notifiable incident</u> and must be reported immediately to University Security and the Associate Director, Work Health and Safety.

See Notification of WHS Incidents and the Notifiable Incident Flow Chart for more information.

17. Emergency preparedness

17.1. Emergency and safety equipment

- a. Emergency and safety equipment must be available and signed for use in an emergency, including for containing and cleaning up spills.
- b. Equipment must be readily accessible to all workers and others if an emergency arises.
- c. Equipment must be inspected and maintained in accordance with the manufacturer's instructions and relevant Australian Standards.

d. Fire protection and firefighting and other related emergency equipment must be available and suitable for the types of hazardous chemicals at the workplace with regards to the type and quantities in which they are used, handled, generated or stored.

17.2. Local emergency practices

- a. Areas which use hazardous chemicals must develop local emergency practices to be followed in the event of a spill or leak of a hazardous chemical, fire, explosion or other emergency and cover, where relevant:
 - i. evacuation points
 - ii. emergency power, gas and electrical shut off buttons
 - iii. location of spill kits
 - iv. location of safety showers and eye wash stations
 - v. first aid facilities
 - vi. fire extinguishers and blankets.
- b. Workers, students and others must be informed and trained in local emergency practices.

17.3. Emergency planning

- a. The University must develop and keep up-to-date an Emergency Plan which outlines responses to deal with hazardous chemicals emergencies, including where relevant, for those sites where Schedule 11 hazardous chemicals exceed manifest quantities.
- b. The Emergency Plan must be developed in consultation with workers, the emergency services and other organisations if relevant.
- c. Where a manifest of hazardous chemicals is required for emergency services then the manifest must meet the requirements of <u>Schedule 12 of the WHS Regulations</u>

18. Facilities and amenities

- a. When a new laboratory or other area using chemicals is built or the facility is upgraded, it must be brought, where reasonably practical, into compliance with AS/NZS 2982.1 and the AS/NZS 2243 series.
- b. Laboratories, studios, workshops and other areas where chemicals are used must display appropriate signage at the entrance(s) stating the hazards or restricted access and any controls (e.g. PPE) that are required.
- c. Handwashing facilities must be provided in each laboratory/workshop/area where chemicals are used.
- d. Food or drink must not be stored or consumed inside areas where hazardous chemicals are used.
- e. There must be access to appropriate equipment (size and type) to manage spills.
- f. Areas must have access to first aid kits which are appropriate to the risks involved. See <u>First Aid</u> <u>Procedures</u> for details.
- g. Emergency drench/safety showers and an eye wash stations must be accessible where hazardous chemicals are used in a way or quantity that poses a risk. These facilities must be flushed, checked and maintained. See <u>First Aid Procedure</u> for details.
- h. Where fumes or airborne contaminants are generated, either through use or storage of chemicals, the area must have in place adequate controls to:
 - i. prevent risk to health or safety, and
 - ii. maintain atmospheric contamination below any set workplace exposure standards.
- i. Ventilation systems such as fume cupboards or local exhaust ventilation, where required as a control, must:

- i. be used, tested and maintained in line with the manufacturer's recommendations and Australian Standard AS/NZS 2243.9, and
- ii. have a label affixed to the unit to indicate that they have been tested within the last 12 months.
- j. Where a risk assessment has identified that a low oxygen environment may occur either during normal operations and an unintended release (e.g. leak or spill), air monitoring devices and alarms must be installed, tested and maintained.
- k. Adequate facilities to hang or store PPE in a clean and usable manner (such as adequate hooks for lab coats) must be available.

19. Health monitoring

- a. Health monitoring must be provided to a worker or student carrying out ongoing work that involves using, handling or storing hazardous chemicals and a significant risk to the worker's or student's health has been identified via risk assessment because of potential exposure to hazardous chemicals specified by Regulation see <u>WHS Regulations 2012 (schedule 14)</u> or <u>Hazardous Chemicals</u> <u>Requiring Health Monitoring.</u>
- b. Health monitoring must be performed by, or under the supervision of, a registered medical practitioner with experience in health monitoring. The University selects the authorised medical practitioner, in consultation with the worker or student concerned.
- c. A copy of the health monitoring report must be provided to the worker or student. If the report contains adverse test results or recommendations that remedial measures should be taken, the relevant Regulator must also be notified.
- d. Except as required by legislation, health monitoring reports must not be disclosed to anyone without the written consent of the worker or student.
- e. Where health monitoring requirements have been identified by risk assessment or other means then that must be reported to the WHS Unit.

20. Storage

- a. All chemicals must be stored in accordance with, and in quantities in line with, legislative requirements.
- b. Where applicable, storage conditions must meet those outlined in the SDS and where relevant, any permit/licence requirements.
- c. Segregation of incompatible chemicals must be observed.
- d. Where specialised storage facilities such as chemical cabinets are required, these must be constructed and labelled for the chemical class as per Australian Standard 2243 (also See <u>Hazardous Chemicals</u> <u>Manual</u> for further details).
- e. Time and temperature sensitive chemicals must be stored in a manner to ensure they remain stable.
- f. Where areas have hazardous chemicals above placard quantities as specified in <u>WHS Regulations</u> <u>Schedule 11</u>, the areas must display and maintain the relevant placards.
- g. All out-of-date hazardous chemicals must be disposed of periodically to reduce the overall risk potential.
- h. Flammable or combustible chemicals must be stored away from ignition sources.
- i. Bulk chemicals must be stored securely and must be supported and bunded to prevent any damage to containers or release.
- j. Dangerous substances, prohibited and restricted carcinogens, controlled substances (schedule poisons) and those classified as chemicals of security concern must be stored appropriately in secure and lockable location.

Note – further information on storage, including gas cylinders can be found in <u>Hazardous Chemicals</u> <u>Manual.</u>

21. Permits and licences

21.1. Dangerous substances

- a. Class 3, 6 and 8 Dangerous Substances must be stored only in quantities and conditions specified by the University's licence to keep dangerous substances.
- b. Local areas must notify the WHS Unit if there are changes to the storage location or quantities of these classes of substances.

21.2. Prohibited and restricted carcinogens

- a. Workplaces must not purchase, store, handle or use prohibited or restricted carcinogens (as listed in <u>Schedule 10 WHS Regulations 2012</u>) unless the University has obtained prior authorisation and a permit from SafeWork SA (or equivalent interstate regulator).
- b. When substances have been approved for use, it is only for the purposes of genuine research or analysis as outlined in the approved application.
- c. Every worker or research higher degree student wishing to use a prohibited or restricted carcinogen must complete a <u>Prohibited or Restricted Carcinogen Worker Registration Form</u>, obtain relevant approvals and forward completed documentation to the WHS Unit.
- d. See the <u>Hazardous Chemicals Manual</u> for the details required for applying for these permits.

21.3. Controlled substances (scheduled drugs and poisons) – research, instruction or training permit to possess

- a. Scheduled drugs and poisons require special permits issued by SA Health. The University has a number of site permits (issued to the Vice-President (Corporate Services) and held by the WHS Unit) for staff who manufacture, produce, possess, store or use Schedule 2, 3, 4, and 7 substances for research, instruction or training.
- b. Staff who purchase, manufacture, produce, possess, store or use chemicals under these permits must complete a risk assessment for working with the chemicals and they must comply with all conditions specified on the permit, including quantity limits, security and recordkeeping.
- c. The University must comply with SA Health *Suspected Theft or Loss of Drugs or Substances from Licence or Permit Holders.*
- d. To breach the conditions of the University's licence is an unlawful act, which would result in a loss of licence and the University's ability to purchase and hold these types of substances.
- e. All chemicals that are classified under Regulation 25 of the <u>Controlled Substances (Poisons)</u> <u>Regulation 2011</u> (see <u>Hazardous Chemicals Manual</u> for listing) must be notified to the WHS Unit so they can be included on the permit and managed as required.

21.4. Individual permits for Schedule 8 and 9 controlled substances

- a. Any staff member requiring Schedule 8 and 9 controlled substances for research purposes must apply for an individual permit from SA Health. This permit allows the holder to purchase specified substance(s) only. Other persons wishing to access these materials when working or studying on the same research project must be individually listed on the permit before access to the substance(s) can be granted.
- b. A copy of the permit and any variation must be provided to the WHS Unit.
- c. A permit issued to a person is not transferrable. Where a staff member or higher degree by research student leaves, that substance must either be appropriately disposed of and that must be recorded, or a new permit must be applied for by the new owner of that substance.

21.5. Chemicals of security concern

Where areas have any of the chemicals identified by the Australian Government as chemicals of security concern, they must address the security and other requirements contained in the <u>National Code of Practice</u> for Chemicals of Security Concern

21.6 Explosives (not including SSAN)

- a. The University has a site license for the storage of explosives. In addition, individual staff who wish to use explosives must apply for a personal permit via SafeWork SA.
- b. All projects using explosives must be approved by the relevant College Vice-President and Executive Dean.
- c. Strict restrictions apply to explosives issued under the permit in relation to purchasing, quantities, use, storage and recordkeeping.

22. Security Sensitive Ammonium Nitrate (SSAN)

- a. The University is exempt from the requirements of the *Explosives (Security Sensitive Substances) Regulations 2006* subject to the University complying with the following conditions:
 - i. all purchases, use and disposal of security sensitive ammonium nitrate must be recorded in an auditable format and kept for a period of at least five years
 - ii. all records will be made available to a gazetted Inspector of Explosives on request within 14 days
 - iii. all quantities of security sensitive ammonium nitrate must be kept in a secure manner (stored in a suitable container, appropriately labelled as SSAN, in a locked receptacle such as a cabinet) and be accessible only by the registered person/s
 - iv. used only for specified research or educational purposes
 - v. no more than 3kg of security sensitive ammonium nitrate is to be kept in any laboratory or other area of use at any time
 - vi. any loss or theft of security sensitive ammonium nitrate is classified as an incident and must be reported immediately to the WHS Unit who will inform SafeWork SA and South Australia Police (SAPOL).
- b. Any staff member who is intending to use SSAN for research or educational purposes must contact the WHS Unit prior to purchasing.
- c. All processes of storage, handling, disposal and recordkeeping will be reviewed by the WHS Unit on a regular basis.

23. Export and import of chemicals

- a. Areas which import or export chemicals must check with the Australian Industrial Chemicals Introduction Scheme (AICIS) to determine if they are required to obtain a permit.
- b. All imported chemicals must have labels in accordance with GHS labelling requirements as per *SA Work Health and Safety Regulations 2012*, Schedule 9, Part 3.

24. Manufacturing of research chemicals

- a. If staff or higher degree by research students in the University manufacture or directly import chemicals, they have a duty to prepare a SDS, even if the chemical is only for research, sample analysis or becomes a waste product.
- b. Where it is not feasible to comply with the WHS Regulations in terms of SDS requirements, then an SDS must be prepared and meet, as a minimum, the following:
 - i. be written in English
 - ii. have an Australian business name and contact details

- iii. state full identification and hazard information if available where it is not available, a precautionary approach should be taken
- iv. state chemical identity, structure or composition as far as is reasonably practical
- v. state known and suspected hazards
- vi. state precautions that must be taken in using, handling or storing the chemical, to the extent that such precautions have been identified.

25. Waste Management

- a. The correct method of disposal of any chemical waste generated must be included in the risk assessment and the relevant safe work procedure (SWP).
- b. Chemical waste must be appropriately stored and segregated to ensure any risks to health or safety are managed.
- c. All waste containers must be suitable for the chemical waste type and appropriately labelled, including relevant hazard warnings.
- d. Chemical waste must be removed by an operator licensed by the relevant authority (Environmental Protection Agency [EPA]). The University must supply the licensed operator with a waste manifest. The operator will complete a Waste Transport Certificate unless an alternative has been organised via the EPA (e.g. online tracker).
- e. Waste manifests must be kept by the area that generates the waste.

26. Recordkeeping

- a. The following records must be maintained and kept up to-date for work with hazardous chemicals by the laboratory/studio/workshop/area using the chemicals:
 - i. Hazardous Chemicals Register (using ChemWatch) and associated SDSs
 - ii. Risk assessments
 - iii. Safe Work Procedures
 - iv. Local emergency procedures e.g. spill kit use
 - v. Training records
 - vi. Inspection and testing records for controls such as fume hoods, local ventilation, monitoring sensors
- vii. Registers for Controlled Substances, SSAN and explosives materials. (e.g. purchase, use and disposal)
- viii. Manifest of hazardous chemicals (where manifest quantities are exceeded)
- b. These records must be made available to auditors or the regulators upon request.
- c. The WHS Unit must keep records for the following relating to hazardous chemicals:
 - i. register of any University permits/ licenses
 - ii. health monitoring records (where monitoring is required)
 - iii. notifiable and other reported incidents.

27. Responsibilities

Vice-President (Corporate Services)	Ensure that as the holder of University permits/ licenses relating to hazardous chemicals, processes are in place to meet regulatory compliance.	
College Vice-	Ensure that:	
Presidents and Executive Deans and Portfolio Heads	a. these procedures are implemented in their College/Portfolio, and	
	 b. there are adequate resources for effective hazardous chemicals management in their College/Portfolio. 	
Managers/supervisors	Ensure that:	
	c. these procedures are implemented in their area	
	 their area has a planned programme of purchasing, identification, assessment, control, monitoring, security and disposal of hazardous chemicals to meet legislative and University procedures requirements 	
	e. as far as is reasonably practicable, there is consultation with workers and health and safety representatives in matters that may affect the work group regarding hazardous chemicals.	
Supervisors	Ensure that:	
(including supervisors of students)	f. workers, students, visitors or other who are handling hazardous chemicals are instructed and trained in risk management principles, SDSs, control measures, safe work practices and any other measure to minimize risk and that training records are kept	
	g. the local Hazardous Chemicals Register (in ChemWatch) and SDSs are readily available to any worker/student who may be exposed to any hazardous chemical during their work or study	
	h. appropriate risk assessments are conducted, controls implemented and SWP developed, for any task requiring the use of a hazardous chemical.	
Associate Director,	Ensure that:	
Work Health and Safety	i. permits for prohibited and restricted carcinogens are completed and submitted to SafeWork SA (or relevant regulator in each jurisdiction)	
	j. investigate all notifiable and reported incidents and maintained investigation reports/records and any notification to Regulators as required and ensure these are reported to Managers via the WHS reporting system.	
	 records of issued permits/ licenses and health monitoring (where relevant) are kept. 	
Workers and others in the workplace (including students)	I. Comply with these procedures and follow all instructions and directions relating to the acquisition, use, handling, storage and disposal of hazardous chemicals.	
	m. Undertake all training as specified by the University or Supervisor.	
	 Report immediately any incident involving hazardous chemicals to their manager/supervisor and report any such incident in FlinSafe within 24 hours. 	
	 Report any inappropriate use of hazardous chemicals to their line manager, supervisor, health and safety representative and/or the WHS Unit. 	

28. Related documents

Work Health and Safety Policy

Work Health and Safety Management System

Hazardous Chemicals Manual

First Aid Procedures

Emergency Management Procedures

29. Legislative Framework

South Australia

- Work Health and Safety Act 2012
- Work Health and Safety Regulations 2012
- <u>Controlled Substances Act 1984</u>
- Controlled Substances (Controlled Drugs, Precursors and Plants) Regulations 2014
- Controlled Substances (Poisons) Regulations 2011
- Dangerous Substances (General) Regulations 2017
- <u>Explosives Act 1936</u>
- Explosives (Security Sensitive Substances) Regulations 2006
- Code of Practice How to manage work health and safety risks
- Code of Practice: Managing risks of hazardous chemicals in the workplace
- Code of Practice: Labelling of workplace hazardous chemicals
- National Code of Practice for Chemicals of Security Concern

Note – equivalent legislation applies in each State and Territory.

30. Australian Standards

Users must refer to <u>SAI Global</u> for the latest version.

A listing of relevant Australian Standards can be found in the Hazardous Chemicals Manual.

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Responsible Officer	Director, People and Culture	
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