CHEMICAL HANDLING POLICY

Section 1 - Purpose

(1) This policy outlines the requirements for the procurement, safe handling, use, storage and disposal of chemicals including hazardous chemicals and dangerous goods within Faculty of Science and Health, Charles Sturt University.

(2) Chemical handling activities conducted within Faculty of Science and Health must comply with relevant standards, legislation, codes of practice, regulations.

(3) This policy outlines processes in place to minimise the risk of adverse health effects and protect the safety of workers, students, contractors and members of the public due to exposure to hazardous substances and dangerous goods.

(4) This policy should be read along with the Faculty of Science and Health Chemical Safety Manual and relevant procedures and guidelines.

Scope

(5) This policy applies to all workers, students, visitors, and volunteers who purchase, handle, store or dispose of chemicals within the Faculty of Science and Health facilities on behalf of Charles Sturt University.

This does not apply to explosives (Class 1 - H201 and H202), radioactive (Class 7) or infectious materials (Class 6.2).

Section 2 - Glossary

(6) For the purpose of this policy, the following terms have the definitions stated:

Term	Definition
Chemical	Term used to define chemical substances, including Dangerous Goods, Hazardous Substances as well as substances that do not fall into either classification. They may be solids, liquids or gases; they may be pure substances or mixtures.
Chemical handling	Any activity involving chemicals within the Faculty of Science and Health, this includes assessment of risk before deciding to use a particular chemical, purchase and movement of chemicals, storage and use of properly labelled chemicals, safe handling procedures and finally, disposal of chemical. Chemical handling may take place within Faculty of Science and Health facilities including, but not limited to laboratories, classrooms, fieldwork locations and agricultural settings.

Due diligence	Gaining an understanding of the hazards and risks associated with the operations of the business and to ensure that the business has and uses appropriate resources and processes to eliminate or minimise risks to health and safety.
ELMO	Online learning module ELMO @ CSU - Dashboard (elmotalent.com.au)
GHS	'Globally Harmonized System of Classification and Labelling of Chemicals, 7th Revised Edition', published by the United Nations as modified under Schedule 6 of the WHS Regulations
Hazardous chemical	A substance that has the potential to cause acute or chronic health effects, damage to property or environment.
Induction	Process of being inducted and introduced to an area of the Faculty of Science and Health. Inductions are to be carried out by members of the Technical Service team and should include information on emergency procedures, locations of facility records, SDS and risk assessment information, operation of facility equipment (as required), expectations and other relevant information for safe work in the area. See Induction procedure
Risk assessment	Risk assessment is the process of identifying, analysing, and evaluating risks according to the predefined criteria referred to in Risk management policy and Risk assessment procedure. Risk assessments should be completed on specific risk assessment forms depending on the nature of the work/hazard. Of relevance to this policy: - **Generic/task/project risk assessment:** should be used for all work, research or study where risks are identified and need to be appropriately managed. - **Hazardous Chemical risk assessment:** required only for hazardous chemicals. To determine if a chemical is hazardous, consult section 2 of the relevant chemical SDS. See SDS Section 2- Hazard identification. - **Fieldwork risk assessment:** should be completed for all fieldwork activities. For fieldwork involving hazardous chemicals, a Fieldwork risk assessment AND a Hazardous Chemical risk assessment are required to be approved. The Fieldwork risk assessment is must provide additional detail relevant to handling the chemical in the field as conditions in the field may vary significantly to how the chemical is managed in a laboratory environment. Additional safety precautions specific to fieldwork should be provided.
Supervisor	• the line manager of a staff member; or • the principle supervisor of a higher degree by research (HDR) student; or • any other individual who (separate to the line manager/principle supervisor) has control of a work area or other activity in which the worker is participating or working. For example a workshop manager who has control of what is undertaken and/or who determines which workers may/may not work within the workshop they control.
SDS	Safety data sheet is a document containing information about chemicals, including hazardous chemicals. Safety data sheets should be available from chemical manufacturer and must adhere to GHS requirements. See link for information on how to interpret an SDS. The Faculty of Science and Health requires that

	manufacturer SDSs are obtained for chemicals and kept as as a hard copy for easy access where the chemical is used or stored.
Worker	Means any person that carries out work for the University including: • employees; • higher degree by research (HDR) Students. • contractors and sub-contractors and their employees; • trainees; • volunteers and affiliates including adjuncts, visiting fellows and honorary fellows; • outworkers; • apprentices; • work experience students; and • employees of labour hire companies;
Training	Training is to ensure that personnel handling chemicals have the skills and knowledge they need to perform their tasks in a manner that is safe and without risks to health (their own and that of colleagues working around them) and the environment, so far as is reasonably practicable. Training requirements are outlined in the Chemical Safety Manual including, but not limited to legislation requirements, classification of chemicals, labelling, storage, spills management, transport, personal protective equipment, and safe disposal of chemicals

Section 3 – Policy

Work health safety duties and responsibilities

(7) The broad parameters of Work Health and Safety roles and responsibilities of all workers of Charles Sturt University are set out in the Work Health and Safety Roles and Responsibilities Guidelines and the Chemical safety Manual.

(8) All workers or students involved in chemical handling activities must wear appropriate personal protective equipment, exercise due diligence and ensure a safe, healthy work environment for themselves and others.

(9) Individuals must act according to terms of the work health and safety legislation (Work Health and Safety Act 2011 (NSW) and other relevant standards, codes of practice, regulations and University policy and documentation including, but not limited to the following:

a. Model Code of Practice: Managing risks of hazardous chemicals in the workplace
b. National Code Of Practice For Chemicals Of Security Concern
c. Labelling of workplace hazardous chemicals: Code of practice
d. Poisons and Therapeutic Goods Regulation 2008
e. Work Health and Safety Policy: Charles Sturt University
f. Australian Code for the Transport of Dangerous Goods by Road & Rail)
g. Faculty of Science and Health- Chemical Safety Manual
h. Pesticide Procedure Manual: Faculty of Science Animal and Field

Training and induction

(10) All workers and students must have the appropriate levels of training, qualifications, and supervision before being permitted exposure to, or working with hazardous chemicals to ensure safe chemical handling.

a. Workers and students should undertake training and induction on the use of chemicals as required based on their level of responsibility.
b. Chemical safety training expectation are outlined in the Chemical Safety Manual.
c. All personnel using pesticides or herbicides must have ChemCert accreditation or equivalent training.
d. Research training should be completed in accordance with the Higher Education Standards Framework (Threshold Standards) 2015 (section 4.2).
e. Chemical safety training for students and staff (who do not have an appropriate professional qualification and/or experience) should be formally signed off by supervisor as evidence when submitting risk assessments.

(11) All workers who use or handle chemicals within the Faculty of Science and Health are required to complete the online chemical safety training module ELMO: Chemical Safety at CSU and provide evidence of completion to relevant supervisor/s prior to commencement of work.

Hazardous Chemical risk assessments

(12) Risks associated with chemical usage must be assessed based on the University Risk rating matrix in accordance with the Risk management policy and Risk assessment procedure.

(13) Prior to purchasing or undertaking any task involving hazardous chemicals, a risk assessment must be completed to determine the possible hazards of the product and the control measures required for its safe use. This information must be obtained from appropriate chemical SDS (see SDS Section 2- Hazard identification).

(14) A risk assessment for hazardous chemicals should be performed using the Hazardous Chemical risk assessment form and must have an appropriate SDS attached to it.

a. Non-hazardous chemical do not need a Hazardous Chemical risk assessment to be completed.
b. Non-hazardous chemicals should be listed in the appropriate section of project/subject risk assessment - this allows the assessor to confirm that all chemicals treated correctly

(15) A Hazardous Chemical risk assessments should be completed by the person conducting the chemical work. Sufficient detail needs to be included in risk assessment to ensure that chemical related risks can be adequately evaluated by the reviewer prior to approval.

(16) Where chemical handling activities will be conducted as part of fieldwork, a separate Fieldwork risk assessment (in addition to the Hazardous Chemical risk assessment form), must be completed outlining specific details for the

a. nature of use of the chemical in the field

b. safe transportation (Must adhere to Australian Code for the Transport of Dangerous Goods by Road & Rail)
c. distance and mode of transport
d. additional chemical handling safety control measures in the field that may be necessary to ensure safe chemical handling in a non-laboratory based environment (e.g. in absence of fume hood or safety shower)

(17) The supervisor, Facility Manager, Head of School/ Centre Director (in accordance with the Risk assessment procedure), must approve the risk assessment ensuring that appropriate hazard control measures will be implemented before work is allowed to commence.

(18) For risk assessments relating to teaching activities, risk assessments must be completed by, or provided to all relevant academic staff. Relevant safety information must be presented to students prior to the commencement of teaching activities.
a. Academic staff are responsible for the implementation of safety controls based on risk assessment to ensure the safety and wellbeing of staff and students.
b. Students who fail to adhere with safety guidelines, may be excluded from hazardous activities.

(19) Technical services staff have a duty of care to ensure that appropriate risk management controls relating to chemicals handling are being implemented by all individuals using Faculty of Science and Health facilities, including for teaching, research and other activities involving the use of hazardous chemicals.

(20) Supervisors are responsible for ensuring that risk assessments are undertaken, approved and implemented in the areas of their control. Supervisors and individual researchers are also responsible for ensuring risk assessments are stored, available and reviewed as required.

(21) Risk assessments must be reviewed regularly as outlined in the Risk assessment procedure and CSU Chemical Safety Manual.

Procurement of hazardous chemicals

(22) Purchase of hazardous chemicals by workers or students is subject to completion and approval of appropriate Hazardous Chemical risk assessment and identification of appropriate storage conditions.

(23) All hazardous chemicals must be purchased through Unimarket, not with a university or personal credit card and approved risk assessments must accompany all requisitions.

(24) The chemical purchaser/user is required to inform relevant technical services areas in relation to the arrival, quantity, storage and hazards associated with the chemical being procured. A risk assessment, manufacturer SDS should also be made available to technical services.

Storage

(25) Chemical storage within Faculty of Science and Health areas should comply with Australian Standard AS 2243.2:2021

(26) Storage requirements for chemicals, including hazardous chemicals will be based upon the dangerous goods classification of the chemical and storage requirements found in the manufacturer SDS's.

(27) All workers and students are responsible for complying with correct storage procedures for chemicals in their use or facility area.

(28) Facility managers are responsible for having oversight of chemical storage and ensuring that workers and students are complying the storage requirements for all chemical used in Faculty of Science facilities.

(29) The Charles Sturt Chemical Storage Guideline has been established to assist laboratory users in safe and compliant storage of minor quantities of chemicals in Laboratories and Facilities of the Faculty of Science.

(30) Refer to the Chemical Safety Manual for additional chemical storage requirements.

Records

(31) For all chemicals (non-hazardous and hazardous) in used or stored in all areas of the Faculty of Science, it is required that the following records are maintained:

a. A complete chemical manifest with manufacturer SDS's on ChemWatch Gold FFX and a hardcopy in areas where the chemicals are used or stored.
b. Hard copies of manufacturer SDS's (not more than 5 years old where available) should also be available in all facilities where chemicals are used or stored.

(32) A record of use must be maintained for concessional spirits (e.g undenatured ethanol). A spirit register must be maintained in accordance with the ATO's concessional spirits scheme. Records must include

a. invoice number
b. date, type and strength of spirit received
c. opening stock quantity
d. a running balance with date, type, quantity, spirit and what the spirit was used for
e. closing stock quantity
f. details of any stocktakes carried out
g. any losses of spirit including the volume and reason.

(33) A waste manifest must be maintained for hazardous chemical waste produced or stored by individuals within the Faculty of Science and Health. Details should include

a. Chemical name
b. Hazard rating
c. Dangerous good class
d. Volume
e. Responsible person
f. Location
g. Disposal records

(34) Records relating to the use of pesticides and herbicides are further outlined in the Pesticide Procedure Manual: Faculty of Science Animal and Field

a. Chemcert accreditation or equivalent training and records must be kept for a minimum of 5 years
b. Stock control records: records must be maintained for every pesticide, including chemical details, quantity and the movements of the chemicals in and out of the storage area.
c. Chemical application/use: A record of the application of a chemical after it has been applied must be completed no later than 24hrs post application. Records are required to be kept for a minimum of 3 years. The chemical use form should include the following information;
    i. The name of the chemical used
    ii. The target pest
    iii. The rate and quantity of chemical applied
    iv. Description of the equipment used
    v. General description of the area treated
    vi. Location/address of the application area
    vii. The date and time the chemical was applied
    viii. Weather conditions
    ix. Name and contact for the applicator/employer
d. Application records should be maintained – Spray orders: written directions for personnel to carry out a chemical application on the property. The minimum information required on these forms are;
    i. The product to be applied
    ii. Where it is to be applied
    iii. When it is to be applied (conditions permitting)
    iv. Contact details of property owner
    v. Precautions/hazards to be aware of for the job
    vi. Rate of product to be applied
    vii. Signatures of management and applicator
    viii. Date of application

Labelling

(35) All chemicals used and stored within the Faculty of Science and Health are required adhere to the GHS 7 guidelines in accordance with the Labelling of workplace hazardous chemicals Code of Practice.

(36) Chemical users should refer to the Chemical Safety Manual for additional labelling guidelines.

(37) All labels should include

a. writing in English
b. the product identifier
c. the name, Australian address and business telephone number of either the manufacturer or importer
d. the identity and proportion disclosed, in accordance with Schedule 8 of the WHS Regulations, for each chemical ingredient
e. any hazard pictogram(s) consistent with the correct classification(s) of the chemical

f. any hazard statement(s), signal word and precautionary statement(s) that is consistent with the correct classification(s) of the chemical
g. 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
h. the expiry date of the chemical, if applicable.

Waste management

(38) The management of chemical waste will depend on the type and volume of waste generated.

(39) Chemical waste must be disposed of in accordance with specific Chemical SDS documentation (see Section 13 of chemical SDS) and Waste Disposal procedure.

(40) Chemical waste disposal must adhere to local laws and regulations.

(41) All chemical waste must be labelled in accordance with GHS 7 and stored in appropriate container and location prior to disposal.

(42) A record of hazardous chemical waste produced and methods of disposal must be maintained in facilities spaces (see clause 33).

(43) Facilities must keep a record of chemical waste as part of laboratory waste streams, identifying location for hazardous chemical waste storage.

Section 4 – Procedures

(44) Risk assessment procedure
(45) Waste Disposal procedure
(46) Induction procedure
(47) FOSH Research WHS Requirements Policy and Procedure

Section 5 - Guidelines

(48) Chemical Storage Guidelines
(49) CSU Chemical Safety Manual
(50) Pesticide Procedure Manual: Faculty of Science Animal and Field

Status and Details

Effective Date	29.02.2024
Review Date	Review by 28.02.2027

Approval Authority	Professor Megan Smith
Unit Head	Peter Ryall
Author	Jodi Newman
Enquiries Contact	techsupportunit@csu.edu.au