

# Chemical Management Procedure

## Section 1 - Preamble

(1) Charles Darwin University ('the University', 'CDU') is committed to fostering a safe workplace and learning environment in regard to procuring, using, handling, storing and disposing of chemicals and chemical waste.

## Section 2 - Purpose

(2) This procedure outlines necessary steps for the safe management of chemicals and provides a framework for identification of hazards, assessment of risks and determination of risk control strategies so that all persons involved with procuring, using, handling, storing and disposing of chemicals and chemical waste are proactive towards safety.

## Section 3 - Scope

(3) This procedure applies to all workers, as defined by the [Work Health and Safety \(National Uniform Legislation\) Act 2011 NT](#) including higher degree by research candidates and affiliates, who undertake any activities on University premises, or who execute work for or on behalf of the University either on or off campus.

(4) This procedure does not address specific chemicals, workplaces or activities. Should you require more information or specific information in relation to particular chemicals use suitable authoritative sources of information, subject matter expert (SME) advice, reference material and experience.

(5) This procedure does not provide information or guidance on biological materials or biological substances.

## Section 4 - Procedure

### Health and Safety responsibilities

#### Legislation, Codes of Practice, Standards, Policy, Procedure, Guidelines and Forms

(6) The legislative governance and other information pertaining to chemical management is complex and extensive.

(7) A list of Acts and Regulations, Codes of Practice, Standards, Policy, Procedure and Guidelines that are applicable to Charles Darwin University activities that involve chemicals is included in the [Master Risk Register](#) which is located on the Waterhole.

#### Duty of care

(8) The University has a duty of care to ensure, so far as reasonably practicable, the health and safety of all persons engaged in work or affected by the work activities, by eliminating or minimising the exposure to hazards and risks. Refer to Hazard Identification, Risk Assessment and Control Procedure for further information.

(9) Workers must take reasonable care for their own health and safety whilst also taking all reasonable measures to ensure that their acts or omissions do not adversely affect the health and safety of other persons. A worker must

comply and cooperate with any reasonable policy or procedure relating to health or safety at the workplace.

## **Risk assessment**

(10) Risk management is exercising responsibility to ensure workers and the public are protected. Risk management is identifying the hazard and control(s) and implementing the control(s) to mitigate the risk.

(11) In line with the Hazard Identification, Risk Assessment and Control Procedure a risk assessment should be completed before a chemical is used for the first time in the workplace. All purchasing of chemicals must be in accordance with the University [Procurement Policy](#). Any hazards that new chemicals will introduce into a workplace must be eliminated or controlled. In order to document this process, the purchaser should complete a pre-purchase risk checklist.

(12) A chemical risk assessment determines whether there is a risk to staff or students' health from using a chemical in the workplace (including any new chemicals or by-products that may be produced during an activity).

(13) All staff and students who engage in activities associated with chemicals must be aware of the hazards and risks associated with chemicals and the controls that have been implemented to reduce the risks.

## **Induction, training and supervision**

(14) In line with the WHS Training and Induction Procedure, supervisors should ensure that the competency level of staff and students is appropriate and that any training programs and information provided to staff and students is regularly reviewed. Areas must keep records of which staff and students have been trained and the type of training they have completed.

(15) Induction, training and instruction related to chemicals should include:

- a. Safety procedures (i.e. review of the chemical risk assessment and nature of the hazards, risks involved and the controls in place);
- b. Emergency procedures and location of emergency equipment;
- c. First aid management;
- d. Location of, and access to, safety data sheets;
- e. Correct and safe use of chemicals;
- f. The proper use and maintenance of personal protection equipment (PPE);
- g. Good housekeeping; and
- h. All statutory requirements (e.g. record keeping for poisons).

## **First aid**

(16) All areas where chemicals are either in storage or use are to have appropriate first aid equipment available and accessible during the hours of operation.

(17) The number of first aid kits and their content is to be based on a risk assessment of the work activities, and will be managed by the area and maintained by the designated First Aid Officer.

## **Personal protective equipment**

(18) Information on Personal Protective equipment (PPE) specific to a chemical is detailed in the Safety Data Sheet (SDS) for that chemical.

(19) The selection and use of suitable PPE should be based on a detailed activity risk assessment and the risks controlled using the hierarchy of controls methodology. Higher order control measures (elimination, substitution and

engineering control(s)) should always be considered before relying exclusively on PPE or administrative controls.

(20) Requirements for the use and maintenance of specialised PPE are to be set out in documented safe work procedures.

(21) The [Personal Protective Equipment - Business Process](#) outlines the requirements and practices for the management of PPE to assist with the correct selection, supply, use, replacement, maintenance, training, instruction and storage.

## Permits and licensing

(22) The procurement and possession of specific and identified chemical classifications have permit and licensing requirements. Refer to the relevant links for specific information, legislation and permit/licensing requirements for:

- a. Industrial chemicals, including chemicals used domestically includes Industrial chemicals and health; Medicines and therapeutic goods; poisons; food additives; contaminants; natural toxicants. [Health \(Treatment of Sewage and Disposal of Effluent and Liquid Waste\) Regulations 1974](#)
- b. Chemicals of security concern including chemicals of national security concern. [Chemical Weapons \(Prohibition\) Act 1994](#) (Commonwealth), [Excise Act 1901](#) and [Excise Regulation 2015](#) (Commonwealth)
- c. Agricultural and Veterinary Chemicals including chemicals used in primary production – agricultural and veterinary products. [Agricultural and Veterinary Chemicals \(Western Australia\) Act 1995](#) and [Agricultural and Veterinary Chemicals Code Act 1994](#) (Commonwealth)
- d. [Radiation Protection \(NT\)](#) including NT requirements for ionizing and non-ionizing radiation.
- e. Medicines & Poisons Control (NT) including NT requirements for Scheduled substances and Therapeutic Goods. [Medicines, Poisons and Therapeutic Goods Act 2012](#), [Therapeutic Goods Act 1989](#) and [Therapeutic Goods Regulations 1990](#). And
- f. [Code of Practice for Supply Diversion into Illicit Drug Manufacture](#)

## Records and information management

### GOLDFFX ChemWatch system

(23) GOLDFFX ChemWatch is the chemical management system in use at Charles Darwin University. It allows access to Safety Data Sheets (SDS), labelling and management of chemical manifests.

(24) GOLDFFX ChemWatch can be accessed by all staff and students from the [ChemWatch](#).

(25) GOLDFFX ChemWatch has the following levels of access:

- a. USER - general access for all staff and students which allows for search and view SDS and produce labels in the database. No manifests can be seen or managed through this login.
- b. POWER USER – allows view/read/write access to manage manifests. Each work area requires PowerUser access to manage their area manifests. Contact your supervisor to find out the access details for your area. If you are unable to source your area's PowerUser access details or wish to setup a new PowerUser account contact Work Health and Safety.
- c. ADMINISTRATOR – Work Health and Safety use only. Gives full access to all CDU manifests.

(26) Training for GOLDFFX is available through Work Health and Safety.

### Area manifest

(27) All areas of the University must maintain their chemical manifest within GOLDFFX ChemWatch system.

(28) The University requires a chemical manifest for each area that uses, handles or stores chemicals as it is a record of all hazardous and non-hazardous chemicals and products. An area manifest identifies the name, location and quantity of all chemicals.

(29) Area manifests are to be regularly reviewed and updated by area representatives to ensure accuracy and currency of records. The frequency of review/update should be at least annually (if not more frequently) or when there is a change to the quantity, location or the way that hazardous chemicals are stored or classified. Examples of change are:

- a. You start using, storing or handling new product(s);
- b. You stop using, storing or handling and dispose of product(s);
- c. You change the storage location of product(s);
- d. You change the volume (increase or decrease) of product;
- e. The product has been reclassified; or
- f. There is an update to the Safety Data Sheet – expired (>5 years) or a new SDS is issued.

(30) Note: There is no requirement to enter the item into a manifest if you only have a small container purchased from the local shop i.e. household products in household quantities.

### **University manifest**

(31) The University Manifest comprises of all area manifests of hazardous chemicals that are loaded to GOLDFX ChemWatch system.

## **Purchasing**

### **General requirements**

(32) All purchasing of chemicals must be in accordance with the [Procurement Policy](#). Any hazards that new chemicals will introduce into a workplace must be eliminated or controlled. In order to document this process, the purchaser should complete a pre-purchase risk checklist.

(33) A pre-purchase risk checklist includes obtaining the SDS to determine the:

- a. Chemical classification (hazardous substance, dangerous good, scheduled poison etc);
- b. Subsequent regulatory requirements;
- c. Controls for the safe use, storage and transport;
- d. Waste management requirements; and
- e. First aid and emergency requirements.

(34) This information enables the proposed user to ensure that facilities and resources are available to use, store and dispose of the chemical safely; meeting regulatory requirements; and appropriate controls are implemented prior to purchase.

(35) Check with the supplier that stock is [Globally Harmonized System of Classification and Labelling of Chemicals](#) (GHS) compliant (e.g. labels and SDS with GHS pictograms, Hazard and Precautionary statements).

### **Importation**

(36) Wherever possible procurement of chemicals is to be with a reputable Australian supplier.

(37) Importation of chemicals into Australia is complex and is covered by several jurisdictions and a variety of

legislation. Staff and students who wish to import chemicals into Australia must contact the relevant Australian Government department for their legal requirements and obligations.

(38) Chemicals imported to Australia must be compliant with GHS requirements.

### **Globally Harmonized System (GHS) of classification and labelling of chemicals**

(39) The [Work Health and Safety \(National Uniform Legislation\) Act 2011 NT](#) implements a system of chemical hazard classification, labelling and safety data sheet (SDS) requirements based on the GHS.

(40) GHS is not equivalent to the Australian Dangerous Goods (ADG) Code. The GHS has redefined some of the hazards. This means that for some chemicals the labels may be vastly different. This does not mean that the substance has become more or less hazardous, but the way the hazard has been classified has changed. This makes it difficult to compare the GHS and ADG systems.

(41) A comparison of dangerous goods classifications under the ADG7 Code with those under the GHS is provided in Appendix G of the [Model Code of Practice: Labelling of workplace hazardous chemicals](#).

(42) The [Model Code of Practice: Managing risks of hazardous chemicals in the workplace](#) refers to hazard classes and categories under the GHS, however, it also applies to workplace hazardous substances and dangerous goods classified under the NOHSC Approved Criteria and the ADG Code, respectively. Most substances and mixtures that are dangerous goods under the ADG Code are also hazardous chemicals.

(43) The GHS poster shows GHS signal words, pictograms and hazard statements for each GHS hazard class and category under the WHS Regulations and can be used to assist in the preparation of labels or to help end-users of chemicals understand the link between each hazard class and the various pictograms, signal words and hazard statements.

(44) Applying GHS to purchasing and current stock-on-hand:

- a. Pre-30 June 2017: All chemicals in original supplier packaging do not need to be relabelled with GHS. End users can store, handle and use these products in the workplace until the products are used up.
- b. Post-30 June 2017: All labelling of chemicals brought into the workplace must be GHS compliant. End users should not purchase any products which are not GHS compliant after 30 June 2017.

(45) Dangerous Goods classifications still apply to the transport of chemicals by road or rail. The Australian Dangerous Goods Code (ADG7) sets out the requirements for transporting dangerous goods by road or rail. Some confusion regarding the GHS labelling of hazardous chemicals may occur for chemicals that are dangerous goods labelled to meet transport requirements. Class labels recommended for the transport of dangerous goods as specified in the ADG7 Code may be used instead of the relevant hazard pictograms specified in the GHS but both should never be used on the same label.

## **Packaging and labelling**

### **Packaging**

(46) A hazardous chemical is correctly packed if the chemical is packed in a container that:

- a. Is in sound condition;
- b. Will safely contain the chemical for the time the chemical is likely to be in that container;
- c. Is made of material compatible with, and will not be adversely affected by, the chemical; and
- d. Does not usually contain food or beverages and cannot be mistakenly identified as containing food or beverages.

(47) Wherever possible, chemicals should be kept in the original packaging. If chemicals are to be decanted into other containers the receiving container/s must meet the criteria set out above.

## **Labelling**

### **General requirements**

(48) The purpose of labelling is to ensure that the contents of a container can be readily identified by product name, and to provide basic information about the contents of the container – its ingredient(s), hazards and precautions for safe use.

(49) Products purchased from reputable suppliers must have labelling compliant with Schedule 9 of the [Work Health and Safety \(National Uniform Legislation\) Act 2011 NT](#).

(50) A hazardous chemical is correctly labelled if the chemical is packaged in a container that has a label written in English and includes the following:

- a. The product identifier of the chemical;
- b. The name, address and contact telephone number of the Australian manufacturer or importer of the substance;
- c. The identity (or generic name if it is commercially confidential) and proportion of each ingredient;
- d. Any hazard pictogram consistent with the correct classification of the chemical;
- e. Any hazard statements, signal word and precautionary statements consistent with the correct classification of the chemical;
- f. Any information about the hazards, first aid and emergency procedures relevant to the chemical, not otherwise included in the hazard statement or precautionary statement; and
- g. Expiry date – if applicable.

### **Small containers**

(51) Where a container is too small to apply a label that contains all the requirements listed above, some other means to identify the contents of the container should be used and the label can contain less information but must contain at least the following:

- a. The product identifier of the chemical;
- b. The name, address and contact telephone number of the Australian manufacturer or importer of the substance;
- c. Any pictogram consistent with the correct classification of the chemical; and
- d. Any other information referred to above that can be reasonably included on the label.

### **Decanted products**

(52) A container into which a chemical has been decanted or transferred must be labelled if the decanted substance is not used immediately; or is supplied to someone else. This includes mixtures or dilutions.

(53) All labelling of decanted or transferred chemicals must be GHS compliant.

(54) The container is correctly labelled if the label is written in English and includes the following:

- a. The product identifier of the chemical; and
- b. Any hazard pictogram consistent with the correct classification of the chemical.

### **Unlabelled containers**

(55) No chemical containers should be unlabelled however, if an unlabelled container is found in the workplace, the contents should be identified and correctly labelled before the chemical is used.

(56) If the contents of a container are not known, treat it as dangerous or hazardous until conclusively proven otherwise. A label such as 'CAUTION DO NOT USE: UNKNOWN SUBSTANCE' should be attached to the container and the container should be removed from use until its contents are identified.

(57) If the contents cannot be identified, the container and contents must be disposed of as an "unknown substance" using a waste management contractor with the appropriate certification to do so.

## **Storage**

(58) Many chemicals have specific storage requirements because of their physical properties.

(59) The way chemicals are stored is integral to minimising risks to health and safety. Storage arrangements should be identified during the chemical risk assessment and appropriate provisions provided. Consideration must be given to the quantities that will be stored, particularly as bulk storage areas may require additional signage and controls.

(60) Segregation of chemicals for storage must be aligned with compatibility of chemical storage guidelines.

(61) When storing chemicals, it may be necessary to employ a variety of segregation techniques, including isolation by distance; cut-off storage (separate rooms or enclosures); or detached storage (separate buildings). When storing dangerous goods, the SDS should always be checked.

(62) The compatibility chart in [AS 3833:2007 'The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers'](#) provides a more complete and detailed analysis of compatibility.

### **Fundamental principles of chemical storage:**

(63) Chemicals should be stored according to hazard class (e.g. flammables, oxidizers, health hazards/toxicity, corrosives, etc.) and incompatible chemicals shall be kept segregated from one another.

(64) Specific licensing conditions or constraints may need to be implemented e.g. locked cabinets, secure rooms with access control.

(65) The quantities of hazardous chemicals should be kept to a minimum, commensurate with their usage and shelf life.

(66) If a chemical is not needed or is degraded or contaminated, dispose of it using the correct disposal method as per the SDS.

(67) Ensure chemical containers and their lids, seals/stoppers are appropriate for the type and quantity of chemical stored.

(68) As far as is practicable, chemicals should be stored in the containers in which they are supplied. Packaging shall be inspected regularly to ensure their integrity. Leaking or damaged containers shall be removed to a safe area for repacking or disposal.

(69) Use spill trays/spill absorbent material to contain spills.

(70) All packages in storage shall be labelled to allow unambiguous identification of the contents and labels should comply with the relevant regulations (refer to Labelling section of this guide).

(71) Shelves should be covered with chemical-resistant paint or chemical-resistant coating and be secure and strong enough to hold chemicals being stored on them. Do not overload shelves.

(72) Opening of packages, transferring contents, dispensing of chemicals or sampling should not be conducted within or on top of a chemical storage cabinet or cupboard unless it is specifically designed for this purpose and appropriate procedures and equipment are used.

(73) Procedures shall be established to deal with clean up and safe disposal of spillages. Supplies and materials needed to control and clean up the spillages shall be readily accessible.

(74) Periodically review the chemicals held in storage and update area manifest.

(75) Do not store chemicals in, under or on top of mechanical air and fume extraction devices such as fume cupboards, laminar flow cabinets, biological safety cabinets and dust/fume extractors.

## **Handling**

(76) Follow the local area procedures.

(77) Carefully read the SDS and label of any chemical you handle. The SDS and label provide critical information on handling and use, and the risks involved.

(78) All controls must be implemented prior to working with chemicals.

(79) PPE must be worn as described in the relevant Activity Risk Assessment (ARA).

(80) Do not take shortcuts.

(81) Always wash your hands after using chemicals.

(82) Consideration should be given to manual handling and spill management and appropriate transfer devices (e.g. bottle top dispensers, drum-pour decanting cradles, mechanical pumps etc.) and spill kits should be used where identified through risk assessment.

(83) Where reasonably practicable, chemicals should be kept in their original container with the original labelling from the vendor (manufacturer/supplier).

(84) Where chemicals are transferred/decanted to a separate container, the new containers must be appropriate for the chemical they will hold and be correctly labelled in GHS format. Attention must be given to decanting chemicals that pose unique hazards such as solvents which can create explosive atmospheres; chemicals that may give off fumes; or asphyxiants.

## **Transporting chemicals**

(85) Chemicals must be in the vendor's original packaging where possible and all legal requirements met, including paperwork, placarding and labelling.

(86) Any bulked packages shall contain packing material to reduce the chance of damage to the chemical containers within.

(87) Where liquids in glass containers are to be shipped, vermiculite or other suitable packing materials shall be used if not in the supplier's original packaging.

## **Transport within buildings**

(88) Move only the required amount of chemicals.

(89) Never transport incompatible chemicals together.



(90) Use spill trays/spill absorbent material to contain spills.

(91) Traveling in an elevator with a chemical is actively discouraged. The preferred method is to use stairs (where practicable). If you must use an elevator, place the chemicals on a trolley, affix a "do not enter" sign to the trolley, lock the trolley wheels, press the button and send the lift to the floor you need. Use the stairs where possible to get to the floor you need, open the elevator and remove the trolley.

(92) Always use devices designed for, and approved for, transport of specific items e.g. gas trolleys for gas bottles, dewars for cryogenics, Winchester carriers etc.

### **Transport outside buildings (including off-campus)**

(93) Specific requirements will apply for transporting dangerous goods and chemicals in a vehicle between buildings on the same university campus or outside university property. The requirements will vary depending on the chemicals being transported however the following should be observed in every case:

- a. Move only the required amount of chemicals;
- b. Never transport incompatible chemicals together;
- c. Use spill trays/spill absorbent material/spill kit to contain spills; and
- d. Always use devices designed for and approved for transport of specific items e.g. gas trolleys for gas bottles, dewars for cryogenics, Winchester carriers etc.

(94) If you have questions about transporting hazardous chemicals or dangerous goods you should contact your local transport regulator:

- a. Competent authorities for the transport of dangerous goods by road and rail per [Transport of Dangerous Goods by Road and Rail \(National Uniform Legislation\) Act 2010](#) and [Transport of Dangerous Goods by Road and Rail \(National Uniform Legislation\) Regulations 2011](#);
- b. [Civil Aviation Safety Authority](#); and
- c. [Australian Maritime Safety Authority - cargoes and dangerous goods](#).

### **Restrictions on transport of chemicals**

(95) There are restrictions on the carriage of chemicals on airlines (international and domestic) so check with your carrier. Consult the airline you are travelling with. For international travel review the website [Crossing the border \(Australian Border Force\)](#).

(96) In some locations and communities, some chemicals have restrictions or are prohibited by law from being supplied, possessed or consumed in any way. You must check what restrictions may be in place in the area you are travelling to or through and severe penalties apply for contravening the restrictions. Examples include the alcohol restrictions in place across Australia and the bans or restrictions placed on volatile and aromatic chemicals and inhalants such as certain fuel types, paints, aerosols and glues.

### **Waste management**

(97) Chemical waste can include solvents, acids, alkalis, toxic materials, photographic chemicals, paints, contaminated glassware and consumables, and laboratory chemicals that are no longer required or have deteriorated with age.

(98) Waste products derived from hazardous chemicals often have similar characteristics to the hazardous substance from which they were derived, so appropriate consideration must be given to the packaging, labelling, handling and storage of waste products, just as for other hazardous chemicals.

- (99) All waste must be identified with full chemical name – [International Union of Pure and Applied Chemistry](#) (IUPAC) nomenclature preferred - and concentration. Avoid trade names, and do not use abbreviations or formulae.
- (100) Where the waste is a mixture, each constituent must be identified and concentrations reported – do not forget to include the solvent.
- (101) Safety Data Sheets (SDS) must be obtained for all components of the waste in order to make a judgement on the segregation, storage and ultimate disposal of the waste.
- (102) Consider the following when disposing of chemicals or chemical waste:
- Refer to the SDS for advice on disposal and ensure a copy is provided with all items being disposed;
  - Clearly mark containers for disposal and ensure disposal containers are correctly and clearly labelled to identify the contents (including ratios or concentrations of components);
  - If necessary, seek advice on disposal containers and methods—this may vary for small or large scale disposals;
  - Ensure incompatible items pending disposal are stored correctly;
  - Keep a record of what is being disposed, including how, when, where, and why;
  - Use a waste management contractor with the appropriate certification/licence to take the waste and dispose of it; and
  - Update ChemWatch area manifest to reflect changes (e.g. quantity, delete stock no longer held).
- (103) The requirements for the segregation and storage of chemical waste are similar to the requirements for the storage of chemicals in general as defined in the Storage section of this procedure.
- (104) Incompatible chemical waste must be segregated as far as possible to reduce the risk of a dangerous reaction. For further information about chemical compatibilities, consult the product label and safety data sheet (SDS).
- (105) Compatible chemical waste may generally be collected in the same container. A system of bulking compatible chemical waste into approved dangerous goods containers for ultimate disposal by a registered chemical waste disposal contractor may be considered. Where possible it is desirable that the waste generator bulk their waste (considering possible incompatibilities or chemical reactions). The individual components and their concentrations must still be noted on the container label.
- (106) A record of chemical waste disposed should be kept by the area with the following details:
- Date/Name: date of generation/name of person/area generating waste;
  - Full chemical name: must list all components and concentrations;
  - Physical state of waste: e.g. liquid, solid or sludge;
  - Number of containers;
  - Total volume or weight;
  - Dangerous Goods/GHS information; and
  - Any other information required by external waste contractor(s).

(107) Storage of waste in plastic is preferred to storage in glass. However, if it is unsafe in a plastic bottle then the most suitable container should be used. Liquid and solid hazardous waste can be re-packaged in the original packaging if it is clearly labelled as waste.

(108) Ensure sufficient head space when filling containers. DO NOT fill past the neck of the container.

(109) Chemically contaminated consumables (e.g. bench covers, heavily contaminated PPE, agarose and acrylamide gels) must be collected in strong leak-proof bags, double bagged, and labeled as per the waste labelling requirements.

Chemically contaminated plastic pipette tips, glassware or sharp objects must be disposed of in rigid containers (e.g. a sturdy container with a plastic liner or a dangerous goods drum) and labelled as per the waste labelling requirements.

## **Waste labelling**

(110) The waste generator is responsible for ensuring that the waste containers are labelled correctly, and labels are legible, securely affixed to each container and indicate the following details:

- a. Identification of waste: IUPAC name preferred – avoid common or trade names. Do not use abbreviations or formulae;
- b. DG/GHS information and pictograms;
- c. Source of waste/name of waste generator i.e. individual/work area/research group/undergraduate unit code;
- d. Waste generation date; and
- e. Any other information required by the waste contractor(s).

## **Waste treatment**

### **On-site waste treatment and disposal**

(111) In some instances, chemical waste may be treated in-house, but only if the material(s) convert to a non-hazardous product. Never discard chemicals down any general sink - unless you have verified that this is an appropriate disposal method. Unless specified on the SDS, no waste should be allowed to enter drains or general waste collection.

(112) It may be possible to neutralise some chemical wastes where staff have the required experience and technical competence. It may also be possible to dilute a chemical or mix it to a concentration that effectively renders it possible to dispose of on-site.

(113) Where on-site disposal is not possible, areas must use a fully licensed waste contractor to ensure that waste is disposed of in a safe and environmentally responsible way. The contractor must be licensed to collect and transport the waste. Containers must be properly labelled, stored in a suitable container, and stored appropriately until collection.

(114) If there is any doubt about the treatment or disposal method required, personnel should not proceed and should seek advice from Work Health and Safety.

### **Empty chemical containers and packaging**

(115) Empty chemical containers can contain residual amounts of chemicals. To ensure that this residue is handled properly and to be able to recycle or properly dispose of these containers, the following procedure should be followed:

- a. Consult the SDS for disposal information for the chemical;
- b. Remove the residual chemical by either:
  - i. Triple rinsing container (and lid) as per rinse procedure below; OR
  - ii. Evaporation (e.g. ethanol is highly volatile and will evaporate) and then triple-rinse; OR
  - iii. Neutralisation followed by triple-rinse or evaporation/rinsing; and
- c. Collect or dispose rinse waste as per rinse procedure below.

### **Rinse procedure**

(116) All chemical containers, liquid or solid, must be rinsed 3 times before being discarded. A rinse should consist of minimal solvent (depending on the chemical, this may be water or another solution) being swirled carefully around the

full surface of the container and the lid/cap. The first rinse should always be collected as chemical waste.

(117) Depending on the nature of the chemical (as outlined in the SDS) the second and third rinses may need to be collected as chemical waste or can go down the drain. If able to dispose of via drain, always ensure that plenty of water is used to flush the material down the drain.

(118) After the containers and lids/caps are rinsed they can be reused/recycled/disposed appropriately as described below.

### **Reuse / recycle / disposal of cleaned containers**

(119) The use of empty (rinsed as above) chemical containers as chemical waste containers is an effective form of recycling and all containers must be cleaned appropriately before being reused or disposed in any form.

(120) All caps should be left off the containers, container labels should be removed, blacked out or made illegible prior to being discarded. Lids/caps may need to be sent as chemical waste (depending on the chemical) or be discarded as general waste.

(121) Empty chemical packaging may only be discarded into the general rubbish if:

- a. There are no hazardous residues (attained via triple rinsing or, in some cases, evaporation);
- b. Any labels have been removed or defaced;
- c. Lids have been removed; and
- d. They are not glass (dispose via glass waste).

### **Monitoring and health surveillance**

(122) Some chemicals and chemical products require mandatory routine monitoring and health surveillance (e.g. radiation).

(123) Other monitoring may be evident to a work area either through the risk assessment process or through notification of an issue or hazard report.

(124) Monitoring of the work environment and health may also form part of a follow up to Accident, Injury and Incident reporting.

(125) Advice can to be sought from Work Health and Safety should any monitoring of the work environment or health of workers be required to assess the degree of risk workers are exposed to.

(126) If doubt exists about the level of exposure, an assessment of the workplace should be undertaken.

(127) All reports and results of any monitoring or health surveillance undertaken by an external consultant should be recorded by managers/supervisors and communicated with Work Health and Safety. The procedures followed, substances measured, results obtained, conclusions drawn, recommended actions and control measures implemented should be documented.

(128) Health monitoring records for all workers must be kept for at least 30 years after the record is made, even if the worker no longer works at the workplace. For asbestos health monitoring, these records must be kept for at least 40 years, due to the long period of time it can take for asbestos-related disorders to develop.

(129) Results of environmental monitoring are to be made readily accessible to workers who are, or are likely to be, exposed in the area that was monitored.

(130) Results of all health surveillance shall be treated and released in accordance with confidentiality and the [Work](#)

## Section 5 - Non-Compliance

(131) Non-compliance with Governance Documents is considered a breach of the [Code of Conduct – Staff](#) or the [Code of Conduct – Students](#), as applicable, and is treated seriously by the University. Reports of concerns about non-compliance will be managed in accordance with the applicable disciplinary procedures outlined in the [Charles Darwin University and Union Enterprise Agreement 2025](#) and the [Code of Conduct – Students](#).

(132) Complaints may be raised in accordance with the [Complaints and Grievance Policy and Procedure – Employees](#) and [Complaints Policy – Students](#).

(133) All staff members have an individual responsibility to raise any suspicion, allegation or report of fraud or corruption in accordance with the [Fraud and Corruption Control Policy](#) and [Whistleblower Reporting \(Improper Conduct\) Procedure](#).

## Status and Details

<b>Status</b>	Current
<b>Effective Date</b>	13th July 2023
<b>Review Date</b>	13th July 2026
<b>Approval Authority</b>	Vice-Chancellor
<b>Approval Date</b>	12th July 2023
<b>Expiry Date</b>	Not Applicable
<b>Responsible Executive</b>	Peta Preo Director People and Culture
<b>Implementation Officer</b>	Peta Preo Director People and Culture
<b>Enquiries Contact</b>	Leah Kenna Senior Manager Work Health and Safety <hr/> Work Health and Safety