

# WHS OP013 (interim) Hazardous Chemicals Procedure

## Section 1 - Overview

(1) Under the terms of the Workplace Health and Safety legislation the University has a responsibility to ensure that systems are in place to ensure that staff, Students, contractors and visitors are protected from both the short and long term health effects of hazardous chemicals and processes.

(2) This document sets out the University of New England (UNE) procedures for the use and storage of hazardous chemicals, dangerous goods, pesticides and other chemicals that are classed as hazardous under the Global Harmonisation System of classification and labelling of chemicals (GHS).

## Section 2 - Scope

(3) Supervisors have a responsibility to ensure that all workers are inducted, receive on-going training and are supervised. There is also a requirement for staff, Students, contractors and other persons to be provided with information, training and consulted on chemical related safety related issues.

(4) Staff, Students and others have a duty of care and a legislated responsibility to comply with requirements of the [Work Health and Safety \(WHS\) Regulation 2011](#) including:

- a. Chapter 7 Cl 328 -418 Hazardous Chemicals;
- b. Chapter 8 Cl 419-529 Asbestos;
- c. Schedule 6 Classification of Mixtures;
- d. Schedule 7 & 8 Safety Data Sheets;
- e. Schedule 9 Classification, Packaging and Labelling Requirements;
- f. Schedule 10 Prohibited and Restricted Carcinogens and Hazardous Chemicals;
- g. Schedule 11,12 & 13 Placarding and Manifest Quantities; and
- h. Schedule 14 Requirements for Health Monitoring;

(5) Staff and others using hazardous chemicals need to comply with the requirements set out in the Labelling of Workplace Hazardous Chemicals Code of Practice.

(6) In addition to meeting the requirements for hazardous chemicals, the University will ensure that persons using pesticides (including herbicides, insecticides, bactericides, baits, lures and rodenticides) as part of their job are trained and keep records, as required by NSW state and federal government environment and pesticide legislation.

## Section 3 - Procedures

### Hazardous Substance Reference Group

(7) At least one staff member from each Cost Centre, which handles, uses, transports or stores hazardous chemicals

will be invited to become a member of the Hazardous Substance Reference Group (HSRG) group. The HSRG provides a forum (face to face or virtual) for the discussion and communication of issues relating to hazardous chemicals. The HSRG may also set targets, provide assistance on implementation of monitoring and evaluation mechanisms and assist with the development of resources.

(8) The HSRG Chair will provide at least two reports each year to the WHS Strategic Committee.

(9) The Hazardous Substances Reference Group will:

- a. Provide practical and technical input into the development and ongoing review of the hazardous substances and dangerous goods; and
- b. Identify areas of non-compliance and provide suggestions for continuous improvement.

## **Risk Assessment**

(10) Risk assessments may be conducted for:

- a. chemicals;
- b. chemical processes;
- c. storage;
- d. disposal; and
- e. Transport of hazardous chemicals.

(11) A risk assessment will be conducted;

- a. whenever a hazardous chemical is introduced into the work area; and
- b. For any procedure or process requiring the use or production of any hazardous chemical.

(12) Each risk assessment will be revised whenever:

- a. there is evidence to indicate that the assessment is no longer valid; or
- b. there is a significant change in the work or procedure to which the assessment relates; or
- c. when an incident investigation identifies a concern with current procedure or standard practice; or
- d. The University is advised on any necessary preventative or remedial action as a result of health surveillance.

(13) An assessment may relate to more than one work activity, more than one place of work and more than one hazardous chemical, so long as it takes account of the context and particular circumstances of each work activity, the place of work and the hazardous chemical to which it relates.

(14) All risk assessments will be documented.

(15) Wherever practicable, the prevention or adequate control of a person's exposure to a hazardous chemical must be achieved by application of the Hierarchy of Controls (i.e. elimination, substitution, isolation, engineering controls, safe work practices, personal protective equipment.)

## **Personal Protective Equipment**

(16) If the risk assessment or SDS requires the use of personal protective equipment (PPE) the Cost Centre will provide the PPE at no cost to the user of hazardous chemicals.

(17) An additional assessment must be made to determine if the supplied PPE is suitable for both task and wearer.

(18) When handling hazardous chemicals the wearing of supplied PPE is mandatory.

## **Record Keeping**

(19) The University will ensure that at least one computer based software package is available to assist in the management of Hazardous Substance and Dangerous Goods compliance.

(20) All chemicals purchased must be entered in the UNE chemical data base, ChemWatch. In some circumstances the purchaser may be the person required to enter the required information, in other cases the Head of Cost Centre (HOC) will have nominated a person who will perform the task.

(21) Records for Hazardous Substances will be maintained as per the [WHS Regulation 2011](#). These will include risk assessments (5-30 years), health surveillance (30 years) and training records (5 years).

(22) Such records will also be maintained and archived as per [UNE Records Management Policy D03/1600](#).

## **Registers**

(23) A register of all hazardous chemicals will be kept at all places of work. This may be kept electronically.

(24) Registers must be regularly maintained and readily accessible to all persons working in the vicinity.

(25) Registers or summaries of inventories must be immediately available to WorkCover and emergency services.

(26) Safety Data Sheets (SDS) must be available for all hazardous chemicals.

(27) When first purchasing substances (which may be hazardous) from a supplier or manufacturer, the purchaser must enquire whether SDS is available.

(28) If a SDS is mislaid, destroyed or is more than 5 years old, the user must contact the manufacturer and request a current SDS.

(29) An asbestos register must be kept at all workplaces where asbestos products or building materials have been identified and must be shown to all contractors and other persons who may be at risk.

## **Training**

(30) The University will provide induction and on-going training to any staff member or student who is likely to be exposed to any Hazardous Substance at the University.

(31) The University will ensure that the induction and training is appropriate for the level of risk to health caused by a Hazardous Substance that has been identified.

(32) Such training will be documented and provided in a manner that is appropriate to the staff and students in the local work area.

(33) All persons working in laboratories will also be provided with a laboratory specific induction (either face to face or virtual). Record must be kept of all site specific inductions.

(34) Hazardous chemical specific training (e.g. Hydro-Fluoric Acid) will be provided if required.

(35) A risk assessment process will be used to identify if additional, on-going training or refresher training is required by staff, students or others who are likely to be exposed to any hazardous chemicals at the University.

## Global Harmonisation System of Classification and Labelling of Chemicals (GHS)

(36) All relevant staff and Students are expected to become familiar with the GHS system labelling and update the labels on containers to assist UNE in its quest to be compliant with the new labelling system when it is mandated in January 2017.

(37) Where ever possible it is recommended that staff and students purchasing hazardous chemicals request that the label is GHS compliant.

### Labelling

(38) Before using or storing the chemical the purchaser, or nominated person, must check that the product is correctly labelled according to GHS requirements and must:

- a. be written in English;
- b. have a product identifier;
- c. have the name, Australian address and the business telephone number of the manufacturer or importer;
- d. disclose identity and proportion of chemical ingredients;
- e. have hazard pictograms that are consistent with the requirements of the SDS;
- f. have hazard statements, signal words and precautionary statements that are consistent with the classification of the chemical as stated in the SDS;
- g. have information about hazards, first aid requirements and emergency procedures;
- h. have an expiry date ( if applicable); and
- i. If any of the above items are missing from the label the user must add the information to the label. If the label is only on the outside packaging, the user needs to create a label for each unlabelled container within the package.

(39) If the hazardous chemical is packaged in a container that is too small to attach all the above information, the user must attach a label which at a minimum:

- a. is written in English;
- b. has an Australian address and telephone number of the Australian manufacturer;
- c. has a hazard pictogram or hazard statement; and
- d. Anything else that it is reasonable practicable to include.

(40) Laboratory rules and protocols must be followed if hazardous chemicals are being used in a laboratory.

(41) If the chemical is decanted, mixed or diluted or otherwise altered a label stating the product identifier and a hazard pictogram or hazard statement consistent with the classification of the chemical, must be attached or affixed to the container.

### Storage

(42) Chemicals must not be stored in the fume cabinets.

(43) A label must be attached to all chemicals including those being processed in a fume cabinet. Full labels must be created and attached if the chemical is not used within 12 hours.

(44) In the event of a fume cabinet malfunction, the user must provide sufficient information about the process that was being undertaken, or complete required information on the Checklist for Fume Cabinets in Use (Form 4.31) or Checklist for Fume Cabinets Requiring Maintenance (Form 4.31a) thus ensuring that maintenance staff and other

persons are aware of any potential hazardous chemical exposure.

(45) When not in use, chemicals must be safely stored according to requirements on the SDS and the legislative requirements for separation of different classes or categories of chemicals.

(46) Where ever possible hazardous chemicals should be kept clear of possible ignition sources.

(47) If hazardous chemical cabinets or storage areas are available it is recommended that chemicals are stored in these cabinets or designated areas.

(48) Where ever possible the amount of flammable liquids in a laboratory should be kept to a maximum of 10 litres.

(49) The quantities of Hazardous Substances and Dangerous Goods stored will be kept to a minimal amount as is practicable.

(50) All storage facilities will comply with the appropriate Australian Standards for storage of chemicals and laboratory practices.

(51) All cylinders will be secured and stored in an upright position.

(52) When handling chemicals always check the SDS to establish if it is compatible with other substances in the workplace. Some chemical groups or classes cannot be safely stored together. Some flammable substances require fire separation distances from many other types of chemicals.

(53) Before storing hazardous chemicals check the label for advice about storage and:

- a. assess the quantity of substance to be stored;
- b. assess the length of time the chemical needs to be stored;
- c. identify the toxicity and stability of the substance;
- d. check the state of the container to establish if it is suitable for long term storage;
- e. check the state of the label and replace label if it is likely to peel off while in storage; and
- f. Consider storing the chemicals in a depot with a bund or some other spill containment system.

## **Radiation**

(54) The [Radiation Control Act 1990](#) and [Radiation Control Regulation 2013](#) provides licences for EPA to licence users of regulated materials such as radioactive substances, ionising radiation apparatus, some sources of non-ionising radiation apparatus and sealed source devices.

(55) All staff that use regulated material must hold a radiation user licence and comply with any conditions which the licence is subject to or hold an approval that exempts them from licencing and supervision.

(56) The UNE Radiation Safety Officer must be notified when any new equipment is procured or new radiation related research is planned.

(57) Persons wanting to use radiation sources at the University must contact the Radiation Safety Officer prior to conducting work or research.

(58) All Students using radiation must be supervised by an appropriately qualified licence holder.

(59) No person may use any unsealed radiation source kept by the University, or at locations controlled by the University, unless that person is authorised to do so by a licence or temporary licence. Exemptions may be granted to students under conditions of licence.

(60) The Radiation Safety Officer will arrange for annual inspections of all work areas that are using radiation sources. The outcomes of such inspections will be reported to the UNE Radiation Safety Committee.

(61) Each year the Radiation Safety Committee will provide at least two summary reports to the WHS Strategic Committee.

## **Incident Reporting**

(62) All hazardous chemical related spills, explosions or adverse exposures will be recorded and reported directly to the immediate supervisor.

(63) Supervisors are responsible for carrying out an immediate investigation and ensuring that others are not put at risk.

(64) In the event of a fatality or life threatening incident, supervisors are responsible for ensuring the area is secured (4 metres) and evidence preserved until a full investigation can be carried out by the relevant authority.

(65) All incidents and dangerous occurrences must be reported to the Head of Cost Centre (HOC) and Human Resource Services Directorate within 24 hours.

## **Waste Disposal**

(66) All chemical waste material must be stored and disposed of in a safe and environmentally responsible manner.

(67) Hazardous chemicals that have not been used for long periods and which have no immediate use should be, where possible, redistributed or disposed of in an appropriate manner.

(68) A contract waste pick up service is available to UNE. This service is provided by a licensed waste disposal contractor. Hazardous chemicals must be properly labelled and stored in a suitable container and housed appropriately until collection

(69) It is the responsibility of the person conducting chemical experiments activities to include waste disposal in the risk assessment and produce procedures for disposal prior to conducting the experimental work.

(70) Before disposing of general chemicals staff, students and others must check the SDS as chemical waste must be treated according to its physical and chemical properties.

## **Emergency Plan**

(71) A Hazardous Substance Emergency Plan will be developed and displayed in each area where dangerous goods in excess of 50kg are used or stored.

(72) The Hazardous Substance Emergency Plan will include procedures for spillages, fire, explosion, medical response and recovery.

## **Health Surveillance**

(73) Supervisors must inform both the HOC and HRS if they suspect that a staff member or student may be exposed to a chemical which may require health surveillance or work area monitoring.

(74) If exposure limits are unknown, or if there are individual concerns, monitoring systems (either internal or provided by an external consultant) may be put in place.

(75) Health surveillance will be carried out for employees exposed to those hazardous chemicals listed in Schedule 14 [WHS Regulation 2011](#).

(76) All UNE Representatives that plan to use pesticides must attend required mandatory training. For most pesticide users the training involves a two day course based on competencies from the Agriculture, Horticulture and Conservation and Land Management Training (AHCIO). Other Australian Qualifications Framework competencies may be required by staff having a potential higher level of exposure to pesticides.

## **Asbestos**

(77) The asbestos register for the area must be consulted if workers suspect that there may be asbestos in the workplace. If asbestos is listed as being present in the area, a documented risk assessment shall be conducted.

(78) If exposure to friable asbestos is possible the HOC or Facilities Management Service Directorate may arrange for atmospheric monitoring. If exposure identifies the presence of respirable asbestos, another risk assessment must be undertaken and an asbestos management plan using the Hierarchy of Control must be implemented.

(79) The Environmental Sustainability Manager will ensure that the removal or disposal of hazardous waste complies with the legislative requirements and has minimum adverse environmental impact. FMS and other Persons in Control of infrastructure and equipment, where asbestos has been identified, will need to comply with asbestos legislation, develop management plans as required and will ensure that they do not employ, direct or allow another person to do licensed work unless the person holds a licence.

## **Biosafety**

(80) The Bio-Safety Officer is required to report annually to the Office of the Gene Technology Regulator (OGTR) and carry out laboratory licensing and inspections as required.

(81) Each year the Bio-Safety Committee is required to provide at least two summary reports to the WHS Strategic Committee.

## **Dangerous Goods**

(82) The University will ensure that any person sending or receiving dangerous goods has the appropriate training and licensing as defined by national road, rail and air transport requirements. Dangerous goods need to have class labels attached before they can be transported by road or rail.

## **Importing**

(83) University procurement staff and/or the HOC need to ensure that any person importing or exporting hazardous chemicals, dangerous goods or other chemical products has the appropriate licensing and documentation as required by quarantine requirements.

## **Notification**

(84) If the Person in Control of the ChemWatch data base identifies that the total amount of hazardous chemicals exceeds SafeWork NSW Notification requirements HRS must be informed.

(85) HSR will be responsible for providing notification to SafeWork NSW on an annual basis if quantities of hazardous chemicals on its premises are in excess of Safe Work NSW notification requirements.

(86) Any Students, UNE Representatives or other persons who create new chemicals must notify HSR of their activities.

(87) HSR will be responsible for contacting Federal agencies including NICNAS if annual reporting for new chemicals and Priority Existing Chemicals (PEC) is required.

## **Pharmaceuticals**

(88) Procedures and requirements for the use and storage of pharmaceuticals is prescribed by NSW Department of Health. Staff need to comply with all NSW Health directives in respect to the requirements for labelling, packaging and administration of poisons and other pharmaceuticals.

(89) Persons in control of pharmaceuticals are required annually to complete the checklist 4.15m confirming location of pharmaceuticals, storage compliance, labelling emergency procedures and currency of drug register. The form is needs to be filed in UNE's central record system.

## **Quarantine**

(90) The HOC or nominee needs to ensure that any staff, Students or others importing or exporting hazardous chemicals, dangerous goods or other products or substances has the appropriate licensing and documentation as required by quarantine requirements.

(91) Researchers who import materials that may be subject to quarantine requirements need to contact The Australian Quarantine Inspection Service (AQIS) to ensure that they have the correct import permit are complying with requirements.

(92) A range of interstate quarantine regulations exist within Australia. Staff and students travelling interstate need to check the quarantine website ([www.quarantinedomestic.gov.au](http://www.quarantinedomestic.gov.au)) requirements for carrying items into that state or into declared quarantine areas.

## **Security Sensitive Goods**

(93) HOC, or nominee, need to ensure that they are complying with Federal Government National security directives and NSW state licensing requirements for Security Sensitive Dangerous Substances (SSDS) and Security Sensitive Ammonium Nitrate (SSAN).

(94) If security sensitive dangerous goods are being imported or used the HOC must nominate a person to obtain a licence and be responsible for the activities authorised under the licence. The licence must be renewed every five years

(95) The nominated person must prepare a security plan as well as comply with the conditions of the licence.

## **Transportation**

(96) When transporting chemicals:

- a. avoid transporting with food, water and other reactive chemicals;
- b. follow the separation and segregation rules for transporting dangerous goods;
- c. secure chemicals in the vehicle so they are unable to move or fall;
- d. keep a record or manifest of the chemicals you are transporting;
- e. make sure you have the required signs and equipment for the vehicle; and
- f. Make sure the driver has the correct licence and is trained in emergency procedures.

## **Veterinary Chemicals**

(97) Person in Control of laboratories where veterinary chemicals are used or stored will identify staff and others who require training in the use of veterinary and farm chemicals.

(98) Other users of farm chemicals will be informed that the University requires them to comply with NSW state



requirements for the use of veterinary and farm chemicals.

## Authority and Compliance

(99) The Rule Administrator, the Director Human Resource Services, pursuant to the University's [Work Health and Safety Rule](#), makes these Procedures.

(100) UNE Representatives and Students must observe these Procedures in relation to University matters.

(101) These Procedures operate as and from the Effective Date.

(102) Previous Procedures relating to Hazardous Chemicals are replaced and have no further operation from the Effective Date of this new Procedure.

## Section 4 - Definitions

For the purposes of this document the following definitions apply.

(103) Airborne contaminant means a contaminant in the form of a fume, mist, gas, vapour or dust, and includes micro-organisms.

(104) Asbestos containing material (ACM) means any material or thing that, as part of its design, contains asbestos.

(105) Asbestos contaminated dust or debris (ACD) means dust or debris that has settled within a workplace and is, or is assumed to be, contaminated with asbestos.

(106) Asbestos (friable) means material that:

- a. is in a powder form or that can be crumbled, pulverised or reduced to a powder by hand pressure when dry; and
- b. contains asbestos.

(107) Asbestos removal licence means a Class A asbestos removal licence or a Class B asbestos removal licence.

(108) Australian Standards are the collective set of voluntary standards for technical and commercial activities in Australia, developed by Standards Australia under a memorandum of understanding with the Commonwealth Government.

(109) Biological monitoring means:

- a. the measurement and evaluation of a substance, or its metabolites, in the body tissue, fluids or exhaled air of a person exposed to the substance; or
- b. blood lead level monitoring.

(110) Combustible dust means finely divided solid particles (including dust, fibres or flyings) that are:

- a. suspended in air or settle out of the atmosphere under their own weight;
- b. able to burn or glow in air; and
- c. able to form an explosive mixture with air at atmospheric pressure and normal temperature.

(111) Bio safety Committee. A University Committee reporting to the Work Health and Safety Strategic Committee.

(112) Combustible liquid means a liquid, other than a flammable liquid, that has a flash point, and a fire point less

than its boiling point.

(113) Combustible substance means a substance that is combustible, and includes dust, fibres, fumes, mists or vapours produced by the substance.

(114) Container, in relation to a hazardous chemical, means anything in or by which a hazardous chemical is, or has been, wholly or partly covered, enclosed or packed, including anything necessary for the container to perform its function as a container.

(115) Contaminant means any substance that may be harmful to health or safety.

(116) Control measure, in relation to a risk to health and safety, means a measure to eliminate or minimise the risk.

(117) Contractor is an individual or company that is engaged to work on site at UNE for a discrete task or project specified under a contract. A contractor is not an employee of the University and is required to have independent workers compensation and other insurance policies. Contractors may have the duties of a worker or the primary duty of care of a person conducting a business or undertaking (PCBU).

(118) Dangerous Goods are substances that have the potential to cause immediate harm and are sub divided into 9 Classes as is listed in the Australian Dangerous Goods Code.

(119) Exposure standard means an exposure standard in the Workplace Exposure Standard for Airborne Contaminants.

(120) Hazardous mixtures means mixtures or solutions composed of two or more substances which do not react, includes alloys.

(121) Flammable liquid means a flammable liquid within the meaning of the GHS that has a flash point of less than 93 degree C.

(122) Hazardous Substance Reference Group means a University committee composed of staff and postgraduates who work with, or have an interest in the safe handling of hazardous chemicals.

(123) GHS means the Globally Harmonised System of Classification and Labelling of Chemicals, Third revised edition, published by the United Nations.

(124) Hazard category means a division of criteria within a hazard class in the GHS.

(125) Hazard class means the nature of a physical, health or environmental hazard under the GHS.

(126) Hazard pictogram means a graphical composition, including a symbol plus other graphical elements, that is assigned in the GHS to a hazard class or hazard category.

(127) Hazard statement means a statement assigned in the GHS to a hazard class or hazard category describing the nature of the hazards of a hazardous chemical including, if appropriate, the degree of hazard.

(128) Hazardous area means an area in which:

- a. an explosive gas is present in the atmosphere in a quantity that requires special precautions to be taken for the construction, installation and use of plant; or
- b. a combustible dust is present, or could reasonably be expected to be present, in the atmosphere in a quantity that requires special precautions to be taken for the construction, installation and use of plant.

(129) Hazardous chemical means a substance, mixture or article that satisfies the criteria for a hazard class in the

GHS.

(130) Hazchem Code means a Hazchem Code under the ADG Code, also known as an Emergency Action Code.

(131) Health monitoring, of a person, means monitoring the person to identify changes in the person's health status because of exposure to certain substances.

(132) Ignition source means a source of energy capable of igniting flammable or combustible substances.

(133) Licensed asbestos removal work means asbestos removal work for which a Class A asbestos removal licence or Class B asbestos removal licence is required.

(134) Manifest means a written summary of the hazardous chemicals used, handled or stored at a workplace.

(135) Placard means a sign or notice:

- a. displayed or intended for display in a prominent place, or next to a container or storage area for hazardous chemicals at a workplace; and
- b. that contains information about the hazardous chemical stored in the container or storage area.

(136) Precautionary statement means a phrase prescribed by the GHS that describes measures that are recommended to be taken to prevent or minimise:

- a. the adverse effects of exposure to a hazardous chemical; or
- b. improper handling of a hazardous chemical.

(137) Product identifier means the name or number used to identify a product on a label or in a SDS.

(138) Radiation Safety Committee means A University Committee reporting to the Work Health and Safety Strategic Committee.

(139) Signal word means the word danger or warning used on a label to indicate to a label reader the relative severity level of a hazard, and to alert the reader to a potential hazard, under the GHS.

(140) Substance, means a chemical element or compound in its natural state or obtained or generated by a process:

- a. including any additive necessary to preserve the stability of the element or compound and any impurities deriving from the process; but
- b. excluding any solvent that may be separated without affecting the stability of the element or compound, or changing its composition.

(141) Workplace Exposure Standards for Airborne Contaminants means the Workplace Exposure Standards for Airborne Contaminants published by Safe Work Australia on its website.

(142) Visitor is a member of the public who is on site but not engaged in any work activity.

## Status and Details

<b>Status</b>	Historic
<b>Effective Date</b>	20th September 2016
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## Glossary Terms and Definitions

**"UNE Representative"** - Means a University employee (casual, fixed term and permanent) contractor, agent, appointee, UNE Council member, adjunct, visiting academic and any other person engaged by the University to undertake some activity for or on behalf of the University. It includes corporations and other bodies falling into one or more of these categories.

**"Student"** - Is an admitted student or an enrolled student, at the relevant time: 1. an admitted student is a student who has been admitted to a UNE course of study and who is entitled to enrol in a unit of study or who has completed all of the units in the UNE course of study; 2. an enrolled student is a student who is enrolled in a unit of study at UNE.

**"Effective Date"** - means the Rule/Policy takes effect on the day on which it is published, or such later day as may be specified in the policy document.