



Version	Approved by	Approval date	Effective date	Next full review
4.1	Director, UNSW Safety and Wellbeing	28 May 2019	28 May 2019	March 2019
Procedure Statement				
Purpose	This procedure outlines the framework for managing hazardous chemicals at UNSW in order to minimise the risk of adverse health and safety effects to persons, property or the environment.			
Scope	It applies to workers at UNSW who use or store chemicals and to those who supervise such activity. It applies equally on or off UNSW campus sites.			
Are Local Documents on this subject permitted?	<input checked="" type="checkbox"/> Yes, however Local Documents must be consistent with this University-wide Document			<input type="checkbox"/> No
Procedure Processes and Actions				

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The steps to be followed in implementing a safe system of work for hazardous chemicals are outlined below. Some sections refer to a further health and safety (HS) procedure or guideline where more information on that step can be obtained - see Related Documents.

1. Purchasing

Implement a system for controlled purchasing in the local area, such that hazards that cannot be controlled are eliminated at source (*e.g. a highly toxic substance is not purchased because a hazardous weighing chamber in the proposed area of use is not available or ventilation is not adequate etc*).

- a) *The SciQuest ERM hazardous chemicals inventory management system has an in-built requisition phase which flags highly hazardous chemicals prior to purchase. Such chemicals cannot be purchased until EHS (Environment, Health and Safety) clearance is provided by the local HS officer. Those business units not using SciQuest to requisition chemicals should use the HS663b Pre-Purchasing Checklist for Hazardous Chemicals/ Materials.*
- b) Ensure that for all proposed new chemicals, the Safety Data Sheet (SDS) is consulted before the material is purchased. Check that the safety precautions, as advised on the safety data sheet, are available in the area where the substance is to be used or stored.
- c) Check that there are no restrictions on the substance proposed for purchase e.g. that it is not listed in Schedule 10 of the NSW Work Health and Safety Regulation i.e.

Table 10.1 [Prohibited carcinogens](#)

Table 10.2 [Restricted carcinogens](#)

Table 10.3 [Restricted hazardous chemicals](#)

Chemicals listed in [Table 10.3](#) above are prohibited from being used in the manner listed in column 3 of this table (e.g. a substance containing more than 1% of Benzene (by volume) cannot be used for spray painting).

Refer to UNSW procedure: [HS335 Prohibited and Restricted Carcinogens Procedure](#) for the chemicals listed in Table 10.1 and 10.2. Such chemicals require notification to the Regulator (SafeWork NSW) including completion of a detailed application form and comprehensive assessment of risks including: details on where the carcinogen will be stored; description of the process in which it will be used; control measures to prevent exposure; maintenance and testing of control measures; atmospheric monitoring (if required); biological and health monitoring (if required); spill and emergency procedures; employee training and information; decontamination and waste disposal.

- d) As soon as a new substance enters the workplace it must be added to the chemical register. Details of any potentially unstable substance must also be noted on the register and must include the date by which the substance is to be disposed of. The date of receipt should be added to the **label** of any substance that has an expiry date so that it can be disposed of before this date is reached.
- e) If chemicals are being imported check that the substance is on the Australian Inventory of Chemical Substances (AICS) database (a database maintained under the National Industrial Chemicals Notification and Assessment Scheme (NICNAS). Any hazardous substance used/stored in Australia must appear on the AICS database. It is the duty of the person importing the substance to check this database and notify NICNAS if it is not present.
- f) If chemicals are being imported it is the duty of the importer to ensure that a current Safety Data Sheet (SDS) is provided to any person who might be affected by the hazardous chemical. The safety data sheet must comply with the requirements of clause 1 of schedule 7 in the WHS Regulation unless the chemical is a research chemical, a waste product or a sample for analysis in which case the SDS should comply with the requirements of clause 2. See Appendix.
- g) If the substance to be purchased is a [Schedule 4D or Schedule 8](#) or 9 drug follow the instructions on the [UNSW Research Ethic Compliance Support \(RECS\)](#) website.

- h) The Council of Australian Governments (COAG) has listed 11 priority chemicals (from a broader list of 96) as being 'precursor chemicals of a security concern'. These include various concentrations of the following chemicals: Ammonium Perchlorate; Hydrogen Peroxide; Nitric Acid; Nitromethane; Potassium Chlorate; Potassium Nitrate; Potassium Perchlorate; Sodium Azide; Sodium Chlorate; Sodium Perchlorate and Sodium Nitrate. Extra vigilance is required for these chemicals in terms of maintaining control over the purchasing of such chemicals, maintaining their security during storage and rigorous stocktaking to ensure that such chemicals are not being removed from site for unauthorised activity. Further detail can be obtained from the [Chemical Security](#) website. In addition this website contains a full listing of all 96 'chemicals of a security concern'. The National Code of Practice for the Chemicals of Security Concern is available on this website; adherence to this is currently voluntary but highly recommended. In summary it requires vigilance for the acquisition and storage of all 96 chemicals to ensure their use is authorised and their storage is secure.

Some chemicals required End User Declarations (EUDs) for example drug precursors which are governed by the Drug Misuse and Trafficking Regulation 2006. See Appendix 2 of the [Code of Practice for Supply Diversion into Illicit Drug Manufacture](#) for an example of an EUD.

Where End User Declarations (EUDs) are required, these should be signed by an appropriate member of staff at UNSW (e.g. supervisor, laboratory manager, head of school etc, as appropriate). Postgraduate students should only sign the declaration if there is provision for a second signature on the form; in which case it is countersigned by an appropriate member of staff.

EUD for drug precursors must be kept for 5 years.

Regular stocktakes on storage areas holding these substances should be undertaken.

2. Hazardous Chemicals Register

The local area (e.g. a laboratory, workshop, store etc.) must maintain a chemical register which lists each chemical being used or stored in that area.

An automatic chemical register is created for all those work areas which are raising requisitions for new chemicals in SciQuest ERM. Such a register is also created for those work units which are not creating requisitions in ERM but which are using the system to enter new containers as they arrive.

The container operations function in SciQuest ERM must also be used to set containers that have been used up or sent off for disposal to 'dispose' status to keep the chemical inventory up to date.

Access to the Safety Data Sheets for all substances on the hazardous chemicals register must be available to all workers. Section 2.2 of the SafeWork Code of Practice: '[Managing risks of hazardous chemicals in the workplace](#)' allows for such access to be by electronic means especially for large numbers of chemicals that are used in University laboratories.

An office based area which is only using consumer products in a way which is incidental to their work and in a manner and at quantities consistent with household use does not need to maintain a chemical register nor do they need to have SDSs available for such products. The label on the products provides sufficient details (see WHS Regulation clause 344(4c)).

Affiliated UNSW organisations or any area not using SciQuest ERM must maintain a chemical register by another method (e.g. Excel spreadsheets).

Information such as the Dangerous Goods Class (GHS Hazard Class) and the Packing Group (GHS hazard category) should be noted on the register. The SDS provides all this information. In addition the quantity should be recorded for each container to enable reporting of quantities of Schedule 11 chemicals for emergency services. See HS333 Placard, Manifest and Notification Procedure for Schedule 11 Chemicals.

Contractors who are using hazardous chemicals must also keep a copy of their workplace chemicals register in the area where the substances are used/stored and all associated SDSs for such chemicals.

The expiry date of unstable substances must be captured on the register to assist with monitoring the date by which disposal of such substances should be organised.

3. Safety Data Sheets (SDSs)

The Safety Data Sheet for each hazardous chemical must be readily accessible and available near the work area at all times. An electronic system can be used provided the above condition can be met. A back-up plan must be available in the event of a computer or server failure.

The SDS must be from the supplier and must contain Australian contact details.

SDSs are required to be reviewed and updated every five years (manufacturer's obligation). The issue date will be written on the SDS (don't confuse this with the date the SDS was printed!). If paper copies of SDSs are being kept in the local area then a system should be implemented to prompt obtaining an updated version from the supplier once the current version is older than 5 years.

Safety Data Sheets are not required for consumer products if the hazardous chemical is used in the workplace:

- in quantities consistent with household use (e.g. dish washing detergent)
- in a manner consistent with household use
- in a way that is incidental to the nature of the work (WHS Regulation clause 344(4c)).

Safety data sheets supplied by manufacturers and chemical suppliers must conform to clause 1 of schedule 7 of the WHS regulation, which has been reproduced and is provided in the Appendix of this procedure.

If a hazardous chemical is a research chemical, waste product or sample for analysis and it is not reasonable for the SDS to comply with clause 1 then it should comply with clause 2 of schedule 7 - reproduced in the Appendix of this procedure.

4. Labelling

Since the GHS system is not mandatory until 1 January 2017, labelling can conform to either the NOHSC National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012 (1994) OR the Safe Work Australia Code of Practice 'Labelling of Workplace Hazardous Chemicals (December 2011)].

Suppliers and manufacturers have the responsibility to ensure labels on chemicals they supply conform to the standard.

For UNSW, the requirements for special labelling situations such as: small containers, research chemicals, decanted materials and waste products as outlined in the Safe Work Australia COP 'Labelling of Workplace Hazardous Chemicals' should be followed. The UNSW HS429 Guidelines for Labelling has been updated to reflect the Safe Work Australia Code of Practice.

5. Labelling hazardous chemicals - pipework

Labels must be either on or near any pipework which contains hazardous chemicals (WHS Regulation clause 343).

6. Risk Management

Risk management forms (risk assessment) must be completed for all tasks (projects/activities etc.) involving the use of hazardous chemicals. The HS329 Risk Management Procedure details the steps to be followed in order to complete this form.

Consult with workers to ensure hazards are identified and to ensure that the measures chosen to minimise risks are effective and will be followed.

When managing risks from hazardous chemicals particular regard should be given to:

- a) the hazardous properties of the chemicals;
- b) any potential physical or chemical reactions between chemicals;
- c) the nature of the work;
- d) any structure, plant or system of work that is used, or could interact, with the chemicals.

Risk management forms should also be completed for facilities / locations used to store chemicals having physical hazards (dangerous goods). See checklists to assist with this task in Supporting Documents below.

Completed risk management forms are HS documents and therefore need to be document controlled to ensure that people are working from the latest version. They must be maintained on a document control register. See the HS311 Document Control Procedure for further information.

7. Risk Control Measures – Selecting and Implementing

Risks should be controlled in accordance with the hierarchy of controls principle e.g. look to substitute lower risk chemicals or use ventilation or enclosed systems in preference to relying solely on procedures, training or PPE.

Engineering controls must be inspected and maintained. For example fume cupboards must be inspected at least annually and placed out of service if they fail the test. The fume cupboard must not be used again until maintained and retested. Flash back arresters must be fitted to flammable gas cylinders and checked annually. Similarly gas regulators need to be inspected annually and refurbished/rebuilt or replaced every 5 years.

Personal Protective Clothing and Equipment (PPCE) requirements must be identified, communicated and enforced. The HS659 Personal Protective Equipment (PPE) Guideline provides specific information on protective eyewear, gloves, chemical resistant clothing, respiratory equipment etc.

8. Other Specific Risk Controls

Some specific risk control examples are provided in the WHS Regulation (from clause 355) e.g.

- Ensure that ignition sources are excluded from hazardous zones;
- Maintain measures required to ensure stability of those chemicals requiring such measures (see 1.9);
- Provide fire protection and fire-fighting equipment commensurate with the fire load of the chemicals;
- Provide appropriate information to persons who operate, test, maintain or decommission a system used for storage or handling of hazardous chemicals;
- Remove chemical residue from chemical handling systems prior to decommissioning.

9. Review of control measures (clause 352)

The measures taken to control risks from hazardous chemicals should be regularly reviewed and revised as necessary particularly if:

- a) A change to the SDS occurs;
- b) A health monitoring report indicates that a worker has been exposed;
- c) If test results indicate that a worker has contracted a disease, injury or illness as a result of working with a hazardous chemical that triggered the need for health monitoring;
- d) If recommendations that remedial measures are required as a result of the health monitoring;
- e) If any air monitoring undertaken indicates that airborne concentration of the hazardous chemical exceeds the relevant exposure standard.

10. Storage

Storage quantities should be kept to a minimum to cater for demand and excessive storage for long periods must be avoided.

Adequate storage facilities must be provided for all chemicals. For chemicals possessing physical hazards (i.e. dangerous goods) this includes requirements for separation and segregation for all incompatible substances. It requires having dedicated Australian Standard approved cabinets for each type of dangerous goods (depending on the quantity stored). See HS404 Dangerous Goods Storage Guideline.

A process should be established to monitor the storage of potentially unstable or highly reactive substances and those that could be liable to spontaneous ignition or detonation if their storage conditions are not being maintained. Such substances may require storage at particular temperatures; the addition of stabilizers; the addition of water to substances that must be kept wetted (e.g. picric acid and trinitrobenzene) etc. [see clause 356]. Refer to HS716 Management of Picric acid Protocol.

In addition, any substance that has an expiry date owing to its instability or chemical degradation during time in storage must be disposed of within the set time limits, e.g. substances that have the ability to form organic peroxides over time in storage (e.g. ethers).

If flammable chemicals require cold storage they must be stored in an intrinsically safe fridge / freezer. Domestic fridges/freezers are not suitable for such storage as their internal compartments are not spark proof and thus can ignite flammable vapours. Australian Standard AS2243.2:2006 Safety in Laboratories Part 2: Chemical Aspects, permits storage of flammable liquids in fridges **provided** that the fridge has been modified by a competent person to eliminate ignition sources

A number of checklists have been provided in Supporting Documents below to assist in managing storage of chemicals and dangerous goods. These checklists are provided as tools to assist local areas managing their chemicals and provided as examples of tools that can be used (these forms aren't mandatory).

11. Safe Work Practices

Safe Work Practices need to be implemented e.g.

- having systems in place for preventing unauthorised access;
- providing adequate supervision (*commensurate with risk and level of competency of user*);
- arrangements for working after hours;
- method for induction of new staff/students etc.

Such practices should be well established and communicated (e.g. induction and training). These can be documented as local protocols or included in a laboratory manual.

12. Safe Work Procedures (SWPs)

SWPs need to be written, published and communicated for all hazardous tasks including for those involving hazardous chemicals. Just like completed risk management forms, these are HS documents and must be document controlled. Dates and version numbers etc need to be maintained on the local document control register.

For some tasks which require an established level of competence to undertake, the competency requirements must be documented and an authorisation process established e.g. a list of authorised persons who can decant cryogenes. Such persons must have demonstrated competence in this task to the supervisor of the area. Access to the equipment/substances must then be controlled to prohibit operation by unauthorised persons.

In a situation where there are shared resources e.g. staff/ students from one school requiring access to equipment belonging to another school, the lines of responsibility must be established and communicated so that the responsibility for providing training on the equipment and assessing competency is clear.

All 'visiting' staff / students to the area where the equipment is housed must abide by the local area requirements including being able to demonstrate competency in the operation of the equipment.

13. Safe Disposal

Waste minimisation practices should be encouraged through purchasing smaller quantities, using minimum quantities and sharing chemical resources where practicable.

Disposal down sinks of hazardous chemicals is prohibited without documented approval from Facilities Management and UNSW Health & Safety review - see HS321 Laboratory Hazardous Waste Disposal Guideline.

The University uses a licensed contractor (licensed by the EPA) to collect all hazardous waste on a weekly basis from UNSW premises (detailed in above procedure).

Details of the hazardous waste should be documented and forwarded to Facilities Management who are currently developing an online waste request form. In the meantime the HS014 Chemical Waste Inventory form can be used.

14. Air Monitoring and Health Surveillance

No person at the workplace should be exposed to a substance (or mixture) having an airborne concentration that exceeds the exposure standard for that substance (or mixture) [clause 49 WHS

Regulation]. The need to conduct either air monitoring or health surveillance should be identified by the local area supervisor.

Clause 50 of the Regulation requires air monitoring to be undertaken if it is not certain on reasonable grounds that the exposure standard is not being exceeded or if monitoring is required in order to determine if a risk to health exists. Results/records of any such air monitoring conducted must be made available to the workers who could potentially be exposed and must be kept for 30 years.

In addition Clause 368 of the WHS Regulation requires that health monitoring is provided to a worker if:

- the worker is carrying out ongoing work with hazardous chemicals referred to in Schedule 14, table 14.1 and there is a significant risk to the worker's health because of exposure to such a hazardous chemical; or
- there is a significant risk of exposure to a chemical other than those listed in schedule 14 **and** either:
 - valid techniques are available to detect the effect on the worker's health or
 - a valid way of determining biological exposure to the hazardous chemical is available and it is uncertain, on reasonable grounds whether the exposure to the hazardous chemical has resulted in the biological exposure standard being exceeded.

See HS091 Health Monitoring Guideline for further details.

15. Dealing with Chemical Spills

Follow the directions in the HS421 Chemical Spills Guideline.

Follow the directions in the [Emergency flip chart](#) for dealing with HAZARDOUS MATERIALS.

16. Training and Supervision

All staff or students who work with hazardous chemicals must receive sufficient training in chemical safety to enable them to work competently in the laboratory/work area.

Refer to the HS320 HS Training and Induction Procedure for further information. Table 1 of this procedure identifies the training required to satisfy generic HS competencies and Hazard Specific HS competencies at UNSW. The local area should use this information to develop an individual training plan for their staff member or postgraduate student. In addition the local area needs to develop a specific task based training needs analysis outlining the training required for an individual depending on the tasks/processes/activities to be undertaken. This is generally in the form of a list of the SWPs that they need to be trained up on in the local area.

The supervisor of the area must provide sufficient information and supervision in order for the staff or students to work competently and safely in a multi-functional laboratory which may possess chemical, biological, radiation, equipment risks etc.

See the HS website for chemical safety training courses.

17. Recordkeeping

The following records are required to be maintained for work with hazardous chemicals:

- Completed risk management forms;
- Safe Work Procedures;
- Training records;
- Chemicals register and SDSs ;
- Any air monitoring/health surveillance records;
- Inspection and testing records for engineering controls;
- Dangerous Goods manifests (see section 18).

The HS733 Health & Safety Records Procedure outlines full details for recordkeeping including responsibilities and retention periods.

18. Inspections, Auditing and Review

Each area must have a system for regularly inspecting the workplace to ensure that procedures are being followed and a high standard of housekeeping is being maintained.

Chemical safety audits should also be periodically carried out to check that systems and procedures are being followed. These audits should do spot checks of registers, look for completed risk management

forms, check for the adequacy of emergency facilities etc. See HS614 Hazardous Chemicals Audit Checklist.

19. Additional Requirements for Schedule 11 Chemicals

UNSW is required to submit an annual notification to SafeWork NSW if the quantities of hazardous chemicals stored at UNSW exceed those specified in the 'Manifest quantity' table in Schedule 11 of the WHS Regulation. The notification details each area on campus where Schedule 11 chemicals (i.e. dangerous goods) are stored at quantities above certain thresholds.

Each local area is required to maintain an accurate chemical register so that summary dangerous goods information can be obtained. For example if flammable liquids are being stored in a specific location (e.g. laboratory), the threshold quantity (i.e. placard quantity) which needs to be included on the hazardous chemical notification is:

- 50 litres of Packing Group I (Hazard Category 1)
- 250 litres of packing group II (Hazard Category 2)
- 1000 litres of Packing Group III (Hazard Category 3).
- Storage containing mixed packing groups of flammable liquids - 1000L

In addition a building manifest needs to be available which lists each location in that building containing a placard quantity of a Schedule 11 hazardous chemical.

Each location holding a "placard" quantity of a Schedule 11 hazardous chemical is required to have placard signage on the entrance to the location.

Dangerous goods placarding is also required for bulk storage facilities (e.g. Liquid Nitrogen tanks) and for packaged stores where placard quantities are exceeded.

A copy of the UNSW Emergency plan (see Clause 43) is required to be submitted to the primary emergency services organisation wherever manifest quantities of Schedule 11 chemicals are stored or used on site. [This is coordinated by UNSW Health & Safety and UNSW Security]. Specific **emergency information** needs to be provided for each building where this topic is relevant e.g. emergency contact persons, location of essential services isolation points, location of nearest emergency facilities etc.

Full details are available in the HS333 Placard, Manifest and Notification Procedure for Schedule 11 Chemicals.

20. Additional Requirements for S8/9 Drugs and Pentobarbitone Sodium S4D

A written authority from the NSW Ministry of Health is required to possess Schedule 8 drugs for the purposes of scientific research. In addition, storage and recordkeeping of Schedule 8 and 9 drugs must comply with the [Poisons and Therapeutic Goods Regulation 2008](#). The [Research Ethics & Compliance Support website](#) provides guidance to researchers on the process for obtaining an authority from NSW Health, maintaining a drug register and detailing disposal requirements. Pentobarbitone Sodium (ie. Lethabarb) must be stored and recorded in the same manner as a Schedule 8 drug as outlined in the Regulation and outlined on the [Research Ethics & Compliance Support website](#).

Accountabilities	
Responsible Officer	Director, UNSW Safety and Wellbeing
Contact Officer	Manager, UNSW Health & Safety
Supporting Information	
Legislative Compliance	This Procedure supports the University's compliance with the following legislation: Work Health and Safety Act 2011 (NSW) Work Health and Safety Regulation 2017 Poisons and Therapeutic Goods Act 1966 (NSW) Poisons and Therapeutic Goods Regulation 2008

Parent Document (Policy)	Health and Safety Policy
Supporting Documents	HS014 Chemical Waste Inventory Form HS321 Laboratory Hazardous Waste Disposal Guideline HS404 Dangerous Goods Storage Guideline HS421 Chemical Spills Guideline HS429 Labelling of Hazardous Chemicals Guideline HS603 Chemical Register Blank Template HS605 Dangerous Goods Storage Checklists HS606 Risk Management checklist or storage of DG Category: Flammable Liquids HS607 Risk Management checklist or storage of DG Category: Flammable Liquids Roofed Store HS608 Risk Management checklist or storage of DG Category: Oxidisers HS609 Risk Management checklist or storage of DG Category: Corrosives HS610 Risk Management checklist or storage of DG Category: Cryogenes HS611 Risk Management checklist or storage of DG Category: Toxic Substances HS614 Chemical Substances Audit Checklist HS659 Personal Protective Equipment (PPE) Guideline HS681 Fact Sheet on the GHS HS682 GHS Hazard Classes Summary HS716 Management of Picric Acid Storage Protocol HS717 Picric Acid Inspection Checklist
Related Documents	HS091 Health Monitoring Guideline HS311 Document Control Procedure HS316 Health and Safety Purchasing Guideline HS320 Training and Induction Procedure HS329 Risk Management Procedure HS333 Placard, Manifest and Notification Procedure for Schedule 11 Chemicals HS335 Prohibited and Restricted Carcinogens Procedure HS681 Fact Sheet on the GHS HS682 GHS Hazard Classes Summary HS716 Management of Picric Acid Storage Protocol HS717 Picric Acid Inspection Checklist HS733 Health & Safety Records Procedure Approved Codes of Practice from clause 274 of Work Health and Safety Act 2011: Code of Practice Labelling of Hazardous Chemicals Code of Practice Preparation of Safety Data Sheets Code of Practice Managing Risks of Hazardous Chemicals
Superseded Documents	HS332 Hazardous Substances and Dangerous Goods Procedure, v4.0
File Number	2014/15662

Definitions and Acronyms				
Globally Harmonised System (GHS)	<p>is a United Nations developed system which has established standardised and uniform methodology for the classification and labelling of hazardous chemicals. It classifies chemicals according to <u>physical</u>, <u>health</u> and <u>environmental</u> hazards. The physical hazards are largely based on those of the United Nations Dangerous Goods System. This more holistic approach means that the previously used terms such as 'hazardous substances' (substance where the focus of the risk was on health) and 'dangerous goods' (substances where the focus of the risk was on physical hazards and more immediate risks such as fires and explosions) are replaced by the more encompassing term of 'hazardous chemicals'.</p> <p>Dangerous Goods classification will continue to be used for transport purposes. The current 9 classes of dangerous goods with their associated dangerous goods diamonds will still be used for outer packaging and vehicles which are transporting chemicals by road, rail and air. In addition dangerous goods diamonds will continue to be used for storage of placard quantities of dangerous goods. See HS333 Procedure for preparing manifest and placarding of Schedule 11 Hazardous Chemicals. Refer to the GHS Fact sheet on the GHS system.</p> <p><u>The GHS system is not required to be fully implemented until 1 January 2017.</u> Chemical suppliers are still allowed to maintain the existing classification system for their labels and Safety Data Sheets. For this reason labelling in accordance with the NOHSC National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012 (1994)] is still valid. Other suppliers who have already implemented the GHS system for their chemical classification will be complying with the SafeWork Australia Code of Practice 'Labelling of Workplace Hazardous Chemicals_Dec 2011'</p>			
Safety Data Sheet (SDS)	replaces the previously used term of Material Safety Data Sheet (MSDS). It contains all the information required to enable safe use, storage, transport and disposal of the chemical including: product identification; hazard information; composition and information on ingredients; how to deal with emergencies involving the chemical; safe handling and storage; risk control measures and personal protective clothing and equipment required; physical and chemical properties of the chemical; stability and reactivity information; toxicological and health effects information; as well as transport and disposal requirements.			
Research chemical	a substance or mixture manufactured in a laboratory for genuine research and is not for use or supply for any other purpose other than analysis or genuine research.			
Genuine research	means systematic investigative or experimental activities that are carried out for either acquiring new knowledge (whether or not the knowledge will have a specific practical application) or creating new or improved materials, products, devices, processes or services. (Related Documents: COP for Labelling).			
SciQuest ERM	the online chemical inventory management system used at UNSW			
Revision History				
Version	Approved by	Approval date	Effective date	Sections modified
1.0	Director, Human Resources	1 November 2006	1 November 2006	<p>This procedure replaces both the Hazardous Substances Policy and the Hazardous Substances Program.</p> <p>Responsibilities (s4 of Policy), are now outlined in the HS Responsibility, Authority and Accountability Procedure.</p> <p>New guidelines replace Section 1.4 (Health Surveillance), Section 1.1.3 (Labelling).</p> <p>Section 1,1 on risk assessment moved to the Risk Assessment Procedure.</p>

2.0	Director, Human Resources	1 April 2007	1 April 2007	Minor changes from consultation
2.1	Director, Human Resources	8 January 2008	8 January 2008	New subsection 14 added in Section 4 – linking this document with the Chemical Spill guideline and referencing the UNSW Emergency Procedures
2.2	Director, Human Resources	1 April 2010	1 April 2010	Expand the storage information and reference the DG Checklists.
2.3	Director, Human Resources	1 December 2010	1 December 2010	Update links
2.4	Director, Human Resources	16 December 2010	16 December 2010	Update the format of the procedure in accordance with the UNSW procedures template.
3.0	Director, Human Resources	22 July 2013	22 July 2013	<p>Updated in accordance with WHS Regulation 2011</p> <p>Sections changed include:</p> <p>Definitions – define GHS</p> <p>Section 3.1 restricted substances</p> <p>3.1 chemicals of security concern</p> <p>3.4.2 new COP for labeling</p> <p>3.14 updated requirements related to air monitoring and health surveillance</p> <p>3.20 Annual notification for schedule 11 chemicals</p> <p>Updated Branding Logo in accordance with UNSW Branding Guidelines.</p> <p>Modified the document identifier from OHS to HS in accordance with WHS legislation review</p>
3.1	Director, UNSW Safety and Sustainability	30 April 2014	30 April 2014	Reviewed for administrative updates

4.0	Director, UNSW Safety and Sustainability	21 March 2016	21 March 2016	<p><i>Section 3.1 Purchasing: introduce the SciQuest ERM system for raising requisitions</i></p> <p><i>Section 3.2 Chemical register section updated to accommodate SciQuest ERM</i></p> <p><i>Section 3.13 Waste: introduce the new online waste request form being developed by FM</i></p> <p>Section 3.19 Placarding and Manifest. Update the procedure name i.e. HS333 Preparing manifest and placard of Schedule 11 Hazardous Chemicals procedure (i.e. replacing the term Dangerous Goods)</p>
4.1	Director, UNSW Safety and Wellbeing	28 May 2019	28 May 2019	<p>Template refresh (section 3.1-3.19 re-numbered as section 1-19); amended 1(g); additional section 20 inserted</p>

Appendix

Schedule 7: Clause 1: Content of a Safety Data Sheet - General

- (1) A Safety Data Sheet for a hazardous chemical must:
 - (a) contain unit measures expressed in Australian legal units of measurement under the *National Measurement Act 1960* of the Commonwealth, and
 - (b) state the date it was last reviewed or, if it has not been reviewed, the date it was prepared, and
 - (c) state the name, and the Australian address and business telephone number of:
 - (i) the manufacturer, or
 - (ii) the importer, and
 - (d) state an Australian business telephone number from which information about the chemical can be obtained in an emergency, and
 - (e) be in English.
- (2) A safety data sheet for a hazardous chemical must state the following information about the chemical:
 - (a) Section 1: Identification: Product identifier and chemical identity,
 - (b) Section 2: Hazard(s) identification,
 - (c) Section 3: Composition and information on ingredients,
 - (d) Section 4: First aid measures,
 - (e) Section 5: Firefighting measures,
 - (f) Section 6: Accidental release measures,
 - (g) Section 7: Handling and storage, including how to be safely used,
 - (h) Section 8: Exposure controls and personal protection,
 - (i) Section 9: Physical and chemical properties,
 - (j) Section 10: Stability and reactivity,
 - (k) Section 11: Toxicological information,
 - (l) Section 12: Ecological information,
 - (m) Section 13: Disposal considerations,
 - (n) Section 14: Transport information,
 - (o) Section 15: Regulatory information,
 - (p) Section 16: Any other relevant information.

Clause 2: Content for Research Chemical, Waste or Sample for analysis

The Safety Data Sheet must:

- (a) be written in English, and
- (b) state the name, Australian address and business telephone number of:
 - (i) the manufacturer, or
 - (ii) the importer, and
- (c) state that full identification or hazard information is not available for the chemical, and in the absence of full identification or hazard information, a precautionary approach must be taken by a person using, handling or storing the chemical, and
- (d) state the chemical identity or structure of the chemical or chemical composition, as far as is reasonably practicable, and
- (e) state any known or suspected hazards, and
- (f) state any precautions that a person using, handling or storing the chemical must take to the extent that the precautions have been identified.