MONASH University

Occupational Health and Safety
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USING CHEMICALS AT MONASH UNIVERSITY

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TABLE OF CONTENTS

1. PURPOSE 2
2. SCOPE 3
3. ABBREVIATIONS 3
4. DEFINITIONS 3
   - 4.1 CHEMICAL 3
   - 4.2 DANGEROUS GOODS 3
   - 4.3 DRUGS, POISONS & CONTROLLED SUBSTANCES 3
   - 4.4 HAZARDOUS SUBSTANCES 4
   - 4.5 HEAD OF ACADEMIC/ADMINISTRATIVE UNIT 4
   - 4.6 HIERARCHY OF CONTROL 4
   - 4.7 MATERIAL SAFETY DATA SHEET 4
   - 4.8 MONASH CONTROLLED ENTITY 4
   - 4.9 OHS HAZARD 5
   - 4.10 OHS RISK 5
   - 4.11 OHS RISK CONTROL 5
   - 4.12 OHS RISK MANAGEMENT 5
   - 4.13 POISONS 5
   - 4.14 SAFE WORK INSTRUCTIONS 5
   - 4.15 SUPERVISOR 5
5. SPECIFIC RESPONSIBILITIES 6
   - 5.1 OH&S 6
   - 5.2 HEADS OF ACADEMIC/ADMINISTRATIVE UNITS OR CONTROLLED ENTITIES 6
   - 5.3 SUPERVISORS 6
   - 5.4 STAFF AND STUDENTS 6
6. INFORMATION REGARDING THE USE OF CHEMICALS 6
   - 6.1 CHEMICAL SAFETY INFORMATION 6
   - 6.2 CHEMICAL SAFETY DOCUMENTS 7
7. COMMENCING NEW WORK/STUDY OR MODIFYING EXISTING PRACTICES 7
8. FACILITIES FOR USING CHEMICALS 7
   - 8.1 GENERAL FACILITIES 7
   - 8.2 AMENITIES 7
   - 8.3 SAFETY EQUIPMENT 7
   - 8.4 LABORATORY FACILITIES 8
9. SAFE WORK PRACTICES FOR USING CHEMICALS 8
   - 9.1 PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT 8
   - 9.2 SAFE WORK PRACTICES 9
   - 9.3 FURTHER INFORMATION 9
10. PURCHASE OF CHEMICALS 9
    - 10.1 NEW CHEMICALS 9
    - 10.2 MSDS 9
    - 10.3 SCHEDULED CARCINOGENS 10
11. STORAGE OF CHEMICALS 10

11.1 GENERAL STORAGE REQUIREMENTS 10
11.2 LABELLING 11
11.3 STORAGE OF CHEMICALS IN LABORATORIES/STUDIOS/WORKSHOPS 12
11.4 STORAGE OF MINOR QUANTITIES OF CHEMICALS OUTSIDE LABORATORIES/STUDIOS/WORKSHOPS 12
11.5 MAJOR CHEMICAL STORES, I.E. STORAGE ABOVE MINOR QUANTITIES 14

12. OHS RISK MANAGEMENT 14

13. SAFE WORK INSTRUCTIONS 16

14. TRAINING 16

15. HEALTH SURVEILLANCE AT MONASH UNIVERSITY 17

16. WASTE DISPOSAL 18

17. EMERGENCIES INVOLVING CHEMICALS 18

18. RECORDS 19

19. REFERENCES 19

19.1 LEGISLATION 19
19.2 MONASH UNIVERSITY OHS DOCUMENTS 19
19.3 AUSTRALIAN STANDARDS 20

1. PURPOSE

The purpose of this document is to provide guidance to staff, students, visitors and contractors who use chemicals at Monash University in accordance with the requirements of the Occupational Health and Safety Act (2004), the Dangerous Goods Act (1985), the Drugs, Poisons and Controlled Substances Act (1981) and associated regulations and with Australian Standards AS/NZS 4801:2001 *Occupational Health & Safety Management*

Systems – specifications with guidance for use and OHSAS 18001:2007*Occupational Health & Safety Management Systems – requirements*.

2. SCOPE

The guidance, procedures and processes outlined in this document apply to the Australian campuses of Monash University and for Monash controlled entities.

3. ABBREVIATIONS

JSA	Job safety analysis
EPA	Environment Protection Authority
MSDS	Material safety data sheet
OH&S	Occupational Health and Safety branch
OHS	Occupational Health and Safety
SWI	Safe work instructions

4. DEFINITIONS

4.1 CHEMICAL

For the purposes of this document, a chemical is defined as any element, chemical compound or mixture of elements and/or compounds where chemical(s) are distributed.

4.2 DANGEROUS GOODS

Dangerous goods are substances and articles classified on the basis of immediate physical or chemical effects such as fire, explosion, corrosion, oxidation, spontaneous combustion and poisoning that can harm property, the environment or people.

Dangerous goods may be solids, liquids, gas, pure substances or mixtures. Dangerous goods are defined in the *Dangerous Goods Act 1985* and listed in the *Australian Code for the Transport of Dangerous Goods by Road and Rail* (ADG Code).

A dangerous good can also be a hazardous substance and/or a drug, poison or controlled substance.

4.3 DRUGS, POISONS & CONTROLLED SUBSTANCES

Drugs, poisons and controlled substances are defined and controlled in the Poisons Code under the *Drugs, Poisons and Controlled Substances Act 1981.* The defined substances that are controlled include:

- prescription medicines
- pharmacy-only medicines
- drugs of addiction
- many household, industrial and agricultural chemicals.

The National Drugs and Poisons Schedule Committee classifies drugs and poisons into schedules which are published as the *Standard for the Uniform Scheduling of Drugs and Poisons*. Toxicity is the main criterion for determining onto which schedule a substance is entered, and the schedule selected has implications for issues such as distribution, labelling, packaging, advertising and storage.

A drug, poison or controlled substance can also be a hazardous substance and/or a dangerous good.

For the remainder of this document, drugs, poisons and controlled substances will be referred to as poisons.

4.4 HAZARDOUS SUBSTANCES

Hazardous substances are substances that can harm the health of people using them or anyone who may be exposed to them.

They are classified in accordance with the *Approved Criteria for Classifying Hazardous Substances (NOHSC:1008:2004 3rd Edition)* and/or the *National Exposure Standards for Atmospheric Contaminants in the Occupational Environment (NOHSC: 1003: 1995)*.

If these substances are breathed in, absorbed through the skin or swallowed, workers may suffer immediate or long term health effects. Exposure may cause poisoning, irritation, chemical burns, cancer, birth defects or diseases of certain organs such as the lungs, liver, kidneys and nervous system. The harm caused by hazardous substances depends on the substance and the level of exposure.

Further information about hazardous substances can be found in the Hazardous Substances Information System (http://hsis.ascc.gov.au).

A hazardous substance can also be a dangerous good and/or a drug, poison or controlled substance.

4.5 HEAD OF ACADEMIC/ADMINISTRATIVE UNIT

Head of academic/administrative unit is used to denote the head of the area that is undertaking the activity. For academic areas, this term includes head of faculty, school, department, institute or centre. For administrative areas, the term includes head of division, branch, centre or unit.

4.6 HIERARCHY OF CONTROL

The hierarchy of control ranks risk control measures in decreasing order of desirability and effectiveness. These are:

- *Elimination*

  Regulations supporting the OHS Act require the elimination of risks as the first step in risk control.
- *Substitution*
- *Isolation*
- *Engineering controls*
- If a risk to workplace health and safety remains after the above control measures have been used, *administrative controls* (information, training and procedures) should be applied or, if these are still not adequate, *Personal Protective clothing and Equipment (PPE) worn*. These methods of risk control should be used in conjunction with other controls and are not are not preferred as a single level of control as the potential of the risk is not eliminated or reduced.

4.7 MATERIAL SAFETY DATA SHEET

A material safety data sheet is a document prepared by the manufacturer or importer of a chemical which describes uses, chemical and physical properties, health hazard information, precautions for use, safe handling and emergency information. It is a legislative requirement for the manufacturer or importer to supply a copy of the MSDS for each chemical to the end user.

4.8 MONASH CONTROLLED ENTITY

Monash controlled entities (eg companies) include entities where Monash can control decision making, directly or indirectly, in relation to the financial and operating policies so as to enable the entity to operate with it in pursuing the objectives of Monash University.

For the remainder of this document, a Monash controlled entity will be referred to as a controlled entity.

4.9 OHS HAZARD

An OHS hazard is anything that has the potential to cause injury or illness to people, damage to property or the environment or a combination of these.The situation could involve a task, chemical or item of equipment.

4.10 OHS RISK

An OHS risk is the possibility of a person's health or safety, property or the environment, being adversely impacted through interaction with hazards. It is determined by considering the likelihood of an adverse event occurring and the consequence of unintended exposure to a hazard/s.

4.11 OHS RISK CONTROL

OHS risk control is action taken to eliminate or reduce the consequence and/or the likelihood of that exposure to a hazard will result in injury or illness to people or damage to property.

4.12 OHS RISK MANAGEMENT

OHS risk management is the process of hazard identification, risk assessment, and risk control with the aim of providing healthy and safe conditions for staff, students, visitors and contractors at Monash University.

4.13 POISONS

A poison is a substance that causes injury, illness, or death, especially by chemical means. Drugs, poisons and controlled substances are defined and controlled in the Poisons Code under the *Drugs, Poisons and Controlled Substances Act 1981.* The defined substances that are controlled include:

- prescription medicines
- pharmacy-only medicines
- drugs of addiction
- many household, industrial and agricultural chemicals.

The National Drugs and Poisons Schedule Committee classifies drugs and poisons into schedules which are consolidated annually and published as the *Standard for the Uniform Scheduling of Drugs and Poisons*. Toxicity is the main criterion for determining onto which schedule a substance is entered, and the schedule selected has implications for issues such as distribution, labelling, packaging, advertising and storage.

A drug, poison or controlled substance can also be a hazardous substance and/or a dangerous good.

For the remainder of this document, drugs, poisons and controlled substances will be referred to as poisons.

4.14 SAFE WORK INSTRUCTIONS

Safe work instructions are written instructions for tasks that outline the preferred method of undertaking a task whilst emphasising ways to minimise any risk(s) of harm.

4.15 SUPERVISOR

4.15.1 Supervisors are those who are responsible for overseeing:

- the work program of other staff;
- the study program of honours and postgraduate students; and
- undergraduate students in lectures, tutorial and practical classes and on field trips.

4.15.2 The supervisor of staff or students has a particular responsibility for safeguarding the occupational health and safety of those in their charge. The supervisor can delegate the supervision or training of a staff member

or student to a suitably qualified and/or experienced person, as appropriate for the task. The supervisor is, however, responsible for ensuring that the staff member or student has received appropriate training and has gained sufficient competence to undertake the task.

5. SPECIFIC RESPONSIBILITIES

A comprehensive list of OHS responsibilities is provided in the document *Occupational health and safety management at Monash University: Structure, functions, roles and responsibilities*. The responsibilities with respect to using chemicals are summarised below.

5.1 OH&S

The responsibilities of OH&S include:

- development, maintenance, review and audit of the university's policies, procedures and systems related to chemicals management;
- providing monitoring of personal exposures and the environment, where there is significant risk of chemical exposure;
- providing information, instruction and training on chemicals management.

5.2 HEADS OF ACADEMIC/ADMINISTRATIVE UNITS OR CONTROLLED ENTITIES

It is the responsibility of the head of academic/administrative unit or controlled entity to ensure that procedures and systems are in place in their unit or entity to manage chemicals effectively to ensure:

- a healthy and safe environment for staff, students, visitors and contractors;
- that local standards and practices comply with legislative requirements and university policy;
- that staff and students undertake recommended OHS training in the use of chemicals.

5.3 SUPERVISORS

It is the responsibility of supervisors to ensure that procedures and systems are in place in the areas of their responsibility to manage chemicals effectively to ensure:

- a healthy and safe environment for staff, students, visitors and contractors;
- that local standards and practices comply with legislative requirements and university policy;
- that staff and students undertake recommended OHS training in the use of chemicals.

5.4 STAFF AND STUDENTS

Staff and students using chemicals must comply with OHS instructions, policies and procedures using control measures and/or personal protective equipment to ensure their own health and safety as well as the health and safety of others.

6. INFORMATION REGARDING THE USE OF CHEMICALS

6.1 CHEMICAL SAFETY INFORMATION

- General chemical safety information is provided on the OH&S web site (www.monash.edu.au/ohs/topics/chemical-safety.html).
- For more detailed information, contact your safety officer or the OHS& E consultant of the area (www.monash.edu.au/ohs/contacts/ohs-branch.html).

6.2 CHEMICAL SAFETY DOCUMENTS

OH&S has developed a range of chemical safety documents that also need to be consulted and understood by users of chemicals, which are available at the OH&S website (www.monash.edu.au/ohs/topics/chemical-safety.html).

7. COMMENCING NEW WORK/STUDY OR MODIFYING EXISTING PRACTICES

7.1 Complete dangerous goods and hazardous substances training

See 14. Training

7.2 Complete a new risk assessment or review and update an existing risk assessment

See 12. OHS risk management

7.3 Ensure suitability of facilities for handling and storage

See 8. Facilities required for using chemicals

7.4 Consult your safety officer

Contact your safety officer to ensure all university and regulatory requirements are met.

7.5 Develop new safe work instructions and safe handling practices, if necessary

See 13. Safe work instructions
See 9. Safe work practices for using chemicals

8. FACILITIES FOR USING CHEMICALS

8.1 GENERAL FACILITIES

8.1.1 The requirements for laboratories/studios/workshops when working with chemicals are defined in Australian standards for laboratory design and construction (AS/NZS 2982) and Safety in the laboratory series (AS/NZS 2243).

8.1.2 If a new laboratory/studio/workshop is built or the laboratory is upgraded it must be brought into compliance with AS/NZS 2982.1 and the AS/NZS 2243 series. Contact your OHS& E consultant for advice.

8.2 AMENITIES

8.2.1 Facilities for storage, preparation and consumption of food and drink must be provided outside the laboratory.

8.2.2 Hand washing facilities with hot and cold water shall be provided inside each laboratory.

8.3 SAFETY EQUIPMENT

8.3.1 **Safety shower and eye wash stations**

- Emergency drench showers and eyewash stations shall be available at a distance of no more than 10 metres from any position in the laboratory.
- Where these facilities are not available alternate arrangements should be made in consultation with the OHS& E consultant of the area.

8.3.2 **Fume control equipment**

- Fume cupboards or local exhaust ventilation should be used when working with volatile chemicals in an open process unless the risk assessment indicates it is not necessary.
- Fume cupboards must have a label to indicate that they have been tested within the last 12 months.

8.3.3 **Transport of chemicals**

Chemicals and samples must be able to be moved safely, eg in sample racks, approved carriers or on trolleys.

8.4 LABORATORY FACILITIES

8.4.1 Chairs/stools shall be ergonomically suitable for the tasks and adjustable to work with the heights of benches and other equipment. The material shall be smooth and impervious to water to facilitate cleaning.

8.4.2 Write up areas need to be separated from work/study areas to minimise the chance of reading and writing materials being contaminated or damaged.

8.4.3 Open spaces between and under benches, cabinets and equipment shall be accessible for cleaning.

8.4.4 Bench tops shall be able to withstand heat generated by general laboratory procedures.

8.4.5 The ceilings, walls and floors shall be smooth, easy to clean and impermeable to liquids, and resistant to commonly used reagents.

8.4.6 All shelving shall be chemically compatible with the goods stored.

8.4.7 Heating shall be by indirect means. Gas water heaters or other water heaters with open elements shall not be installed in laboratories.

8.4.8 The laboratory/studio/workshop must display signage at the entrance(s), stating the hazards or restricted access and those staff who are authorised to enter. Areas requiring regulatory or hazard signage are identified in the *Guidelines for identification of areas requiring regulatory or hazard signage at Monash University*, available at the OH&S web site (www.monash.edu.au/ohs/topics/guidelines/signage.pdf).

9. SAFE WORK PRACTICES FOR USING CHEMICALS

9.1 PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

9.1.1 Laboratory staff shall wear protective clothing when performing procedures in the laboratory. The use of long sleeved cotton or polyester wrap around gowns or laboratory coats is recommended.

9.1.2 Protective eyewear shall be worn by staff when entering the laboratory. Some procedures may require full face protection which will be assessed when performing risk assessments of the procedure.

9.1.3 Fully enclosed footwear shall be worn by staff when entering the laboratory.

9.1.4 The above three items are the minimum personal protective equipment requirements for a laboratory unless lesser requirements can be justified by a risk assessment. Contact your OHS& E consultant for assistance in assessing such risk (www.monash.edu.au/ohs/contacts/ohs-branch.html).

9.1.5 Gloves with the appropriate chemical resistance shall be worn if direct contact with chemicals is likely. Gloves should be worn as splash protection whenever chemicals are handled, if the gloves have not been matched to the chemicals used then they should be replaced if contamination occurs.

9.2 SAFE WORK PRACTICES

9.2.1 Access to laboratories should be restricted to appropriately trained staff.

9.2.2 Eating, drinking, shaving and the application of cosmetics is prohibited in laboratories.

9.2.3 Food and drink for consumption must not be stored in laboratories or laboratory refrigerators or freezers.

9.2.4 Long hair must be tied back.

9.2.5 Protective clothing should not be worn outside of the laboratory.

9.2.6 All staff and students who use fume cupboards in their work/study must be provided with the *Information sheet no. 13: Use of local exhaust ventilation systems: Fume cupboards* and be trained in the use of the cupboard.

9.2.7 All hazardous work must be identified, assessed for risk and controls implemented where necessary.

9.3 FURTHER INFORMATION

Safe work practices for using chemicals are also detailed in the chemical safety and laboratory safety sections of the OH&S website www.monash.edu.au/ohs/topics/index.html including:

- Safety tips for the use of balances and for the weighing of toxic/hazardous substances.
- Use of fume cupboards.

10. PURCHASE OF CHEMICALS

10.1 NEW CHEMICALS

10.1.1 **Before purchasing new chemicals, check with your safety officer regarding:**

- requirements for licenses, permits or notification to use the chemical;
- the requirements and availability of suitable storage for the class of chemical and the quantity to be ordered;
- the availability of appropriate handling conditions for the chemical process, e.g. fume cupboard, local ventilation, fume cupboards with wash down facilities (perchloric acid);
- the availability of appropriate emergency facilities and procedures required for the chemical process;
- the appropriate waste disposal and spill procedures required for the chemical or for any chemical products arising from the process to be used;
- obtaining the MSDS to ensure that necessary controls are in place prior to work commencing.

10.2 MSDS

10.2.1 When purchasing chemicals, verify that the MSDS for the chemical is already present in the university ChemWatch MSDS database. If the

MSDS is not already held, notify ChemWatch, so that the MSDS can be sourced and added to the database

10.2.2 For purchases completed via SAP, a statement is already included in the order terms and conditions, which states:

19. HAZARDOUS MATERIAL
Additional terms and conditions and material safety data sheets will be supplied for hazardous materials where this order specifies such hazardous materials.

10.3 SCHEDULED CARCINOGENS

10.3.1 Determine if the chemical being sourced is a scheculed carcinogen using the list located on the WorkSafe Victoria website www.worksafe.vic.gov.au.

10.3.2 Anyone wishing to use a scheduled carcinogen must apply for a license in order to purchase the chemical. Licence application forms are available from the WorkSafe Victoria website.

10.3.3 A register of use of the scheduled carcinogen must be maintained and must contain:

- A list of the product name of the scheduled carcinogenic substance,
- A copy of the MSDS for each of the carcinogenic substances,
- A running inventory of the amounts used and by whom.

10.3.4 The register should be readily accessible to any authorised person.

10.3.5 *Records of use for each pers*on required to use a scheduled carcinogen must be maintained as per the "Scheduled Carcinogens: User *Notification Record"* www.monash.edu.au/ohs/topics/chemical-safety.html.

10.3.6 Upon ceasing work/study at Monash University the user of the scheduled carcinogen must be provided with a written statement of work as described in the "Scheduled Carcinogens: Exit statement". www.monash.edu.au/ohs/topics/chemical-safety.html

10.3.7 The academic/administrative unit must retain the completed forms according to section 18 of this document.

10.3.8 In addition, records of carcinogen use must be sent to the Occupational Health and Safety branch (OH&S) including completed copies of the;

- Licence application letter,
- Risk assessment for the scheduled carcinogen to used,
- Granted licence from WorkSafe Victoria,
- Scheduled carcinogens: User Notification Record.
- Scheduled Carcinogens: Exit statement

10.3.9 OH&S will use this information to maintain a central register of Carcinogen use. If staff/students wish to seek access to any personal records of carcinogen use should first contact their supervisor or alternatively the Occupational Health and Safety branch.

11. STORAGE OF CHEMICALS

11.1 GENERAL STORAGE REQUIREMENTS

11.1.1 **Chemical register**

All areas (e.g. laboratory, studio, workshops or stores) must maintain a chemical register, which includes:

- A list of all chemicals currently in use, and
  Either a hard copy or access to an electronic copy of the MSDS for each chemical

11.1.1.1 List of chemicals

- This list must be maintained electronically by the user group using either the ChemWatch MSDS database or other chosen method.
- For each chemical on the list, each unit/entity is responsible for maintaining up to date records of:
  - the product name
  - the container size;
  - the maximum number of containers held and;
  - the associated dangerous goods class (if applicable).

11.1.1.2 The MSDS for each chemical must:

- be from the manufacturer, supplier or importer of the chemical;
- have been issued in the last 5 years;
- contain a statement of the hazardous nature of the substance;
- contain Australian emergency contact details.

ChemWatch will ensure that these requirements are met however if Chemwatch is not being used, it becomes the units responsibility to source and maintain MSDS's in accordance with the above.

11.1.2 **Location of chemical register**

11.1.2.1 The chemical register can be held electronically but individual areas may choose to print out hard copies to be available in the area.

11.1.2.2 When held electronically, the supervisor of the storage area must ensure that:

- any storage or retrieval equipment is kept in good working order;
- staff and students know how to access the information; and
- that there are means of obtaining a paper copy of information.

11.2 LABELLING

11.2.1 **All containers must be labelled with:**

- Product name
- Name, address, phone no. of Australian manufacturer or importer
- Ingredients, if applicable
- Risk phrases (describe the hazard e.g. Irritating to skin)
- Safety phrases (describe the safety precautions e.g. avoid contact with eyes)
- HAZARDOUS or words that indicate the severity of the hazard, e.g. dangerous poison, warning, caution

11.2.2 **A container into which a substance is decanted must be labelled unless:**

- the substance is used immediately, and
- the container is cleaned or the contents rendered non-hazardous

11.2.2.1 Note: Unlabelled containers must not be left unattended

11.2.3 **If the container is too small for all elements to be included, then the minimum required on the label is:**

- Product name and concentration
- Date
- Name of generator
- Dangerous Goods class diamond or words that indicate the severity of the hazard

11.2.4 **If the container is too small to include the product name then it may be labeled with:**

- sample number(s), and
- the contents identified in a laboratory book.

11.2.4.1 Note: Co-workers must be informed about the hazard(s) and the identification system used

11.2.5 **All labels must be:**

- legible to coworkers and emergency services
- Unambiguous

11.2.6 **Re-used containers must have old label:**

- removed, or
- totally covered with new label

11.2.6.1 Note: Food containers are not permitted to be re-used for chemical storage

11.3 STORAGE OF CHEMICALS IN LABORATORIES/STUDIOS/WORKSHOPS

11.3.1 Storage of chemicals, chemical substances and chemical wastes in laboratories, studios and workshop areas at Monash University must be in accordance with the chemical storage guidelines provided by OH&S.

11.3.2 All containers of chemicals or chemical waste must be labelled clearly. The *General chemical storage guidelines* available at the OH&S web site and in poster form provide an overview of storage of all chemicals in laboratory/studio/workshop areas www.monash.edu.au/ohs/topics/chemical-safety.html).

11.3.3 *Storing dangerous goods in laboratories/studios/workshops* provides detailed information about the requirements for the storage of dangerous goods in laboratories/studios/workshops and is available in poster form.

11.3.4 For further information about the storage of chemicals, contact your local safety officer or the OHS& E consultant of the area (www.monash.edu.au/ohs/contacts/ohs-branch.html).

11.4 STORAGE OF MINOR QUANTITIES OF CHEMICALS OUTSIDE LABORATORIES/STUDIOS/WORKSHOPS

11.4.1 **Storage of small quantities of chemicals (ie ≤ 5 kg or L)**

11.4.1.1 ≤ 5 kg or L of any class of dangerous goods or hazardous substances (excluding class 2.3 and class 4 dangerous goods)

may be stored in most locations with a few basic safety requirements which are listed below.

11.4.1.2 Chemicals must:

- be stored in closed, labelled containers;
- have compatible spill containment for liquid dangerous goods;
- be stored in a locked labelled cupboard for **class 6** dangerous goods (except when deemed to be 'In Use' as per Storing Dangerous Goods in Laboratories, Studios and Workshops) and scheduled poisons;
- be stored in a labelled cupboard or on a labelled shelf and not on the floor;
- not be stored in corridors or exit routes;
- not be stored in food or drink containers;
- not be stored in the same cupboard or on the same shelf as food or drink.

11.4.1.3 Note: class 4 and class 2.3 dangerous goods must be stored in a laboratory, studio or workshop (see 11.2) or in a chemical store (see 11.3.2) unless approval has been given for an alternate storage location by OH&S.

11.4.2 **Minor chemical store**

11.4.2.1 The maximum quantity of dangerous goods that can be stored in a minor chemical goods store is:

- ≤ 25 kg or L of hazardous substances;
- ≤ 25 kg or L of each of dangerous goods classes 3, 6 and 8; in addition to
- ≤ 5 kg or L of class 5, except for sodium hypochlorite where ≤ 25 kg or L can be stored.

11.4.2.2 Dangerous goods of class 4, class 2.1 and class 2.3 cannot be stored within a minor chemical store.

11.4.2.3 The safety officer and OHS& E consultant of the area must be consulted prior to establishing new storage areas of this type.

11.4.2.4 The use of the storage area must meet the following requirements:

- The store must be a dedicated storage area;
- Chemicals must be stored in closed, labelled containers;
- Storage of items other than chemicals is to be kept to a minimum, especially combustible items;
- Food or drink must not be stored in the area;
- The location must not jeopardise the safety of any other areas in the building and must not impede fire-fighting operations;
- The store must be adequately ventilated to ensure there is no build-up of vapours;
- The storage area must be kept locked and access restricted to authorised personnel;
- There must be spill provisions and means to prevent spilled materials accessing drains;
- Chemicals must be stored in a labelled cupboard or on labelled shelf and not on the floor;
- Separate spill containment for each class of dangerous goods is required, as well for incompatible items of the same dangerous goods class.

11.5 MAJOR CHEMICAL STORES, I.E. STORAGE ABOVE MINOR QUANTITIES

11.5.1 There are a range of specific regulatory design requirements for stores holding above minor quantities of chemicals.

11.5.2 These requirements are dependent upon both the quantity stored as well as the mixtures of chemicals stored, thus an individual assessment of each storage case that does not meet the requirements detailed in 11.3.1 and 11.3.2 is required.

11.5.3 For further information about the storage of chemicals in this type of store, contact your local safety officer and the OHS& E consultant of the area (www.monash.edu.au/ohs/contacts/ohs-branch.html) to ensure legislative compliance.

12. OHS RISK MANAGEMENT

OHS risk management must be completed on all processes/procedures/activities that involve hazardous substances dangerous goods or poisons (See *OHS Risk Management at Monash University*; www.monash.edu.au/ohs/topics/risk-management.html*).*

12.1 OHS RISK MANAGEMENT MUST BE COMPLETED

- before activities using chemicals commence;
- before the introduction of new procedures, processes or equipment that use chemicals;
- when procedures or processes or equipment that use chemicals are modified.

12.2 OHS RISK MANAGEMENT TOOLS

A range of tools has been developed for staff and students to undertake risk management at the university. At Monash, the emphasis of these processes is to ensure that risks are controlled effectively.

12.2.1 **Risk management programme**
(www.monash.edu.au/ohs/forms/risk-management-program.pdf)

12.2.1.1 The risk management program has been designed to allow assessment teams in each unit to quickly and comprehensively:

- identify and assess the hazards in the workplace;
- rank them in terms of priority; and
- provide guidance for the development of appropriate risk control measures.

12.2.1.2 Chemical risk management

- Hazards associated with dangerous goods (the physico-chemical hazards) are covered in the Physical hazards section of the risk management programme. Hazards associated with exposure to hazardous substances are covered in the Chemical hazards section of the risk management programme. Note: poisons are generally hazardous substances.

12.2.2 **Job safety analysis**
(www.monash.edu.au/ohs/topics/risk-management.html)

12.2.2.1 The job safety analysis (JSA) tool has been developed to assist Facilities & Services staff to assess and control the risks of their activities that may impact the health and safety of staff, students, visitors and contractors.

12.2.2.2 The JSA has been designed to allow staff performing medium and high risk activities to critically examine a work task to identify the hazards of the job and to work out ways to eliminate or control the hazards.

12.2.2.3 Following completion, the JSA must be checked by a supervisor/foreman prior to commencing the project.

12.3 RISK ASSESSMENTS

12.3.1 **Risk assessments must also include assessment of:**

- the effects on the local environment such as other processes, personnel or external environmental impacts;
- types and quantities of wastes generated and their storage, handling, treatment and disposal methods;
- emergency situations which may arise from the task, procedure or equipment, eg from a spill, a fire or an explosion;

12.3.2 the level of risk associated with the task, procedure or equipment outside of the normal operating hours of the unit, ie during times when the immediate emergency response, eg first aid, is limited. Examples of recommended conditions for work or study at these times are provided in *OHS procedures for work and study during times when emergency response is limited*, which is available at www.monash.edu.au/ohs/topics/procedures/after-hours.pdf .

12.3.3 **Generic tasks, procedures and equipment**

12.3.3.1 Generic risk assessments may be developed for tasks, procedures and equipment:

- at more than one work place, or
- at more than one work area within a workplace.

12.3.3.2 Generic risk assessments must include modifications specific to each work area.

12.3.3.3 Where used, a copy of the generic risk assessment must be available to staff and students of the unit/entity.

12.4 CONTROLLING RISKS

12.4.1 The OHS Act 2004 requires risk control measures to be selected based on the hierarchy of control.

12.4.2 Throughout the risk control program, examples of control measures based on the hierarchy of control are provided following the assessment table for each hazard type.

12.4.3 The hierarchy of control ranks risk control measures in decreasing order of desirability and effectiveness with the preferred control measures being elimination, substitution *or* engineering controls.

12.5 UPDATE AND REVIEW OF RISK ASSESSMENTS

12.5.1 Risk assessments must be reviewed:

- when significant changes are made to the task, procedure; or equipment that use chemicals; or
- at least every 3 years.

12.5.2 Units/entities that undertake research using chemicals may need to update their risk assessments frequently, even daily, to ensure that their chemical risk assessments are up to date.

13. SAFE WORK INSTRUCTIONS

13.1 Following risk management of chemical procedures, processes or equipment that use chemicals, safe work instructions must be developed by supervisors of laboratories/studios/workshops or incorporated into laboratory procedures or safety manuals.

13.2 OH&S has developed *Guidelines for the development of safe work instructions*, which are available at the OH&S web site (www.monash.edu.au/ohs/topics/risk-management.html) to provide guidance and a template for use by areas.

14. TRAINING

(See *OHS Induction & training at Monash University*; www.monash.edu.au/ohs/training/).

14.1 RISK MANAGEMENT

14.1.1 Training in the use of the risk management program and the job safety analysis is provided centrally and in work areas.

14.1.2 Information regarding the content and scheduling of OHS courses offered at Monash University is:

- provided at the Staff Development Unit web site; (www.adm.monash.edu.au/staff-development/ws/ohs/), and
- in the *Guide to OH&S Training* (www.monash.edu.au/ohs/training/training-guide.pdf

14.2 USE OF CHEMICALS

Training in the use of chemicals must be provided at a range of levels, including by laboratory/studio/workshop supervisors, safety personnel and the Staff Development Unit.

14.2.1 **Supervisors at a local laboratory/studio/workshop level**

Supervisors of each area must provide induction and training in the use of chemicals in the laboratory/studio/workshop that they supervise. This training must include:

- the location of MSDS and risk assessments for the chemicals held and used in the area;
- the use and location of personal protective and emergency equipment for the use of chemicals;
- local chemical procedures, processes or equipment that use chemicals;
- local emergency procedures;
- chemical waste storage, handling, labelling and disposal procedures.

14.2.2 **Safety personnel and experts at a unit/entity level**

14.2.2.1 In faculties/divisions/entities with a range of similar risks, training in chemical use can be provided at faculty/divisional level by local safety personnel, experts and/or the local OHS&E consultant, e.g. dangerous goods & hazardous substances, risk management, etc.

14.2.2.2 Unit/entity OHS training in chemical use can be provided by local safety personnel or experts with specific knowledge of the chemicals uses in the area.

14.2.3 **OHS courses at a University level**

14.2.3.1 The Staff Development unit provides training courses on the use of dangerous goods and hazardous substances for staff and for postgraduate and honours students across all campuses and centres.

14.2.3.2 Information regarding the content and scheduling of OHS courses offered at Monash University is:

- provided at theStaff Development website (www.adm.monash.edu.au/staff-development/ws/ohs/ and
- in the *Guide to OH&S Training* (www.monash.edu.au/ohs/training/training-guide.pdftraining *records*

14.2.4 In order for units/centres and supervisors to demonstrate effectively that they have provided comprehensive OHS training for the staff and students that they supervise, the training in chemical use that they undertake must be recorded.

14.2.5 OH&S has a developed a proforma to use to record attendance at OHS training in each unit/entity, which is available at the OH&S web site (www.monash.edu.au/ohs/training/training-records.html).

14.2.6 A short description of the points covered in the training should also be documented for all chemical training provided in the unit/entity. The description will act as both a reminder regarding the areas that should be covered in the training and as a record of the areas covered in the training.

14.2.7 OHS training by supervisors

- When a supervisor provides training in chemical procedures, the completion of the training should be recorded.
- Records of chemical training should be maintained in a folder in each area, e.g. laboratory/workshop/studio where training is provided.
- The student or staff member being trained should be able to demonstrate competence in the task(s) before the supervisor completes the record of training.

15. HEALTH SURVEILLANCE AT MONASH UNIVERSITY

Health surveillance of chemical users is conducted at Monash on a risk basis. Details of the Monash University health surveillance program are outlined in the document *Health surveillance at Monash University*, which is available at the OH&S web site (www.monash.edu.au/ohs/management-system/index.html).

16. WASTE DISPOSAL

16.1 Correct chemical waste management (hazardous and non-hazardous) involves a structured program to ensure that any wastes generated are correctly identified in terms of their potential hazard to the environment and to any staff handling them.

16.2 Any material that is designated as a waste and which could be harmful to health and/or the environment due to its properties either currently or in the future (e.g. radioactive waste, animal carcasses) must be:

16.2.1 handled by staff with knowledge and access to appropriate personal protective equipment;

16.2.2 segregated according to the particular hazards, treatment methods and recycling or re-use opportunities associated with the waste type;

16.2.3 packaged to ensure that:

- the waste materials cannot escape the container at any time;
- are fit for transport; and
- will not pose risks to personnel handling the wastes such as cleaning staff and waste disposal contractors

16.2.4 clearly labelled identifying:

- the type of waste material;
- the major contaminant or risk associated with the waste;
- the unit/entity who generated the waste and their contact details, eg phone number;
- date of generation;

16.2.5 stored in a secure site/area specifically designated for the waste type and for the unit/entity generating the waste, refrigerated , if required. The waste store must be in compliance with Environment Protection Agency (EPA) bunding guidelines to ensure spills will not cause pollution or pose an environmental hazard.

16.2.6 collected by a licensed Environment Protection Agency-prescribed waste contractor;

16.2.7 transported in such a manner to ensure that the health of staff, students, visitors to the university, and/or the environment is not compromised and in accordance with Victorian Environment Protection Authority requirements and the Australian Code for the Transport of Dangerous Goods by Road and Rail.

17. EMERGENCIES INVOLVING CHEMICALS

17.1 INCIDENT AND EMERGENCY RESPONSE

17.1.1 Emergency procedures for a chemical spill are contained in the emergency procedures booklet located near every telephone on all campuses.

17.1.2 Contact OH&S by phone on 9905 1016 or by email on ohsehelpline@monash.edu to obtain further copies of the emergency booklet for your campus.

17.1.3 The *Procedures for hazard and incident reporting, investigation and recording* (www.monash.edu.au/ohs/topics/hazards-incidents.html) outline the procedures for reporting incidents involving chemicals.

17.2 CRISIS MANAGEMENT

17.2.1 Monash University has invested considerable resources on planning crisis management and recovery. This planning includes consideration regarding crises involving chemicals.

17.2.2 Further details and the crisis management plan are located at the Crisis Management and Recovery web site (http://adm.monash.edu/cmr/).

18. RECORDS

Record to be kept by	**Records**	**To be kept for:**
Academic/administrative unit/ controlled entity	Risk assessments	Until review, or at least 3 years
	OHS training records of training provided by unit/entity, including: • Attendees; • Short description of training content	7 years, or for as long as the staff member is employed
	Use of scheduled carcinogens: • scheduled carcinogens used; • time periods each scheduled carcinogen used	50 years
	EPA prescribed waste transport certificates	7 years
Staff Development Unit	Records of centralised OHS training provided , including: • Attendees • Short description of training content	7 years
	Course evaluation sheets	2 years
OH&S branch (confidential files)	Health surveillance results	50 years

19. REFERENCES

19.1 LEGISLATION

Dangerous Goods Act 1985 (Vic)
Dangerous Goods (Storage and Handling) Regulations 2000 (Vic)
Drugs, Poisons and Controlled Substances Act 1981
Environment Protection Act 1970 (Vic)
Environment Protection (Prescribed Waste) Regulations 1998 (Vic)
Public Health and Wellbeing Act 2008 (Vic)
Industrial Waste Management Policy (Prescribed Industrial Waste)
Occupational Health and Safety Act 2004 (Vic)
Occupational Health and Safety Regulations 2007(Vic)

19.2 MONASH UNIVERSITY OHS DOCUMENTS

(www.monash.edu.au/ohs/)

Guidelines for the development of safe work instructions
Health surveillance at Monash University
Job Safety Analysis
OHS risk management at Monash University
OHS induction and training at Monash University
Risk Management Programme
Training records

19.3 AUSTRALIAN STANDARDS

AS/NZS 2243.1: 2005 Safety in Laboratories - Planning and operational aspects
2243.2: 1997 Safety in Laboratories - Chemical aspects
2243.8: 2001 Safety in Laboratories - Fume cupboards
2243.10: 2004 Safety in Laboratories - Storage of chemicals
AS/NZS 2982.1: 1997 Laboratory Design and Construction - General Requirements
AS/NZS 4360:2004 Risk management
OHSAS 18001:2007 Occupational Health & Safety Management Systems – requirements.
EPA (Vic) Bunding Guidelines: 1992 Publication 347

MONASH University

AS/NZS 4801, OHSAS 18001 OHS20309

Scheduled Carcinogens: User Notification Record

Please read notes prior to completing this form:

- Only one (1) Scheduled Carcinogen to be listed per form.
- A Risk Assessment **MUST** be completed and approved by the supervisor and safety officer and must be attached to this document. Refer to Monash University Risk Management Programme

Part A - Personal Information

Full Name:	First	Middle	Surname
Staff/Student ID Number:			
Date of Birth:			
Residential Address:			

Part B - Details Of Use

WorkSafe License Number:	
Name of Scheduled Carcinogen being used:	
Describe the use of the scheduled carcinogen substance and for what purpose:	
List the laboratory and fume cupboard to be used:	
List the amount of Substance Used in (g):	
List the type of gloves that will be used:	

Proposed Periods of use:

From (Date)	To (Date)
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

Part C - Health Surveillance

Is Health surveillance required as indicated in the risk assessment?	Yes ☐	If Yes, please contact the OHS Branch on 990 51014.
	No ☐	If No, complete the remaining fields on this form.

Part D - Authorization

The below signatories have reviewed the risk assessment and discussed the proposed procedures to be implemented whilst handling the named scheduled carcinogen and to the best of their knowledge are satisfied that appropriate health and safety precautions have been taken.

Supervisors Name: _____

Supervisors Signature: _____ Date: _____

Safety Officers Name: _____

Safety Officers Signature: _____ Date: _____

Completed copies of these documents should be provided to the OH&S branch, the nominated user and kept on file in the academic/administrative unit.

The HR Services Collection Statement can be found on http://privacy.monash.edu/guidelines/collection-personal-information.html#hr

MONASH University

Occupational Health and Safety
AS/NZS 4801, OHSAS 18001
OHS20309
SAI Global

Scheduled Carcinogens: Exit Statement

Full Name:			
	First	Middle	Surname
Staff/Student ID Number:			
Date of Birth:			
Residential Address:			
Name of Scheduled Carcinogen/s Used at Monash University:	1.	4.	
	2.	5.	
	3.	6.	

Period of time worked with the scheduled carcinogen/s:

From (Date)	To (Date)	Duration (Months)
1.		
2.		
3.		
4.		
5.		
6.		

Health surveillance:

Health surveillance has been a requirement during the period of using the scheduled carcinogen.	Yes ☐ No ☐
Yes	Contact the OH&S Branch on 990 51014 for further information.
OR	
No	No further follow up required, unless specifically requested. An employee may contact their general practitioner for advice.

Authorisation:

Head of Academic/Administrative Unit:

Name:

Signature: Date:

The HR Services Collection Statement can be found on http://privacy.monash.edu/guidelines/collection-personal-information.html#hr