THE UNIVERSITY OF WESTERN AUSTRALIA

S&H Chemical Management Quick Action Guide

UWA Safety and Health Unit
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3. Purpose

This is an overview of the steps required to manage chemicals at the University of Western Australia. The Chemical Management Guidelines give more detailed information.

Not every work area will require every step in this document. You should assess the hazards and regulatory requirements of your area. If you and your manager are uncertain if a step applies to your area refer to the supporting documents listed in section 8.4. If you are still uncertain contact UWA Safety and Health chemical specialist for advice and support.

Terms and acronyms used in Table 1 are defined in Table 4 in section 8.

4. Scope

This guideline applies to all UWA worksites and external locations related to UWA activities or areas.

This guideline is intended for use for chemicals only, such as hazardous substances, dangerous goods, scheduled poisons, ionising radiation open sources or chemicals with a CAS (chemical abstract number.)

This document does not provide information or guidance on biologicals (contact the Biosafety office), asbestos (contact Campus Management) or explosives (Class 1 Dangerous Good) (contact the Chemical Safety Officer).

5. Guideline

Table 1 below outlines the actions and requirements for common chemical management issues. Not all issues are found in every workplace and not all issues are outlined in this quick action guide. The links provide further information to help you manage the issues in your area.

Table 4, in section 8, defines chemical safety terms used within this document. To save space in Table 1 acronyms have been defined in section 8 too.

Table 1 Actions and Requirements for common chemical management issues.

Issue	Actions/Requirements	Links
M/SDS	• An M/SDS is available for all hazardous or dangerous items that are used or stored in your area. The M/SDS file is found on the reports tab of the product details for the ChemAlert entry for an item. • For RED or PG I items you must supply a copy of the M/SDS file to your facilities manager. • There are arrangements so that all laboratory users can access the M/SDSs. • M/SDS' are < 5 years old. M/SDS files may be supplied in electronic or paper copies	UWA Chemical Safety UWA ChemAlert SafeWork Australia SDS

Issue	Actions/Requirements	Links
Permits / Licensing	You must have a permit to purchase: • Concessional Spirits • Un-denatured ethanol • Scheduled Carcinogens in schedules 5.4, 5.5 or 5.6 of the OSH act, 1996. • Drugs, Poisons and Controlled Substances: • Chemicals listed in Schedules – S2, S3, S4, S8, S9 and Listed Regulated S7 of the TGA's SUSMP • Precursor Chemicals • Some Agricultural and Veterinary Chemicals • Restricted use chemicals (agricultural) • Veterinary chemicals • Most Radioactive Chemicals • Chemicals of Security Concern	UWA Concessional spirits ATO Concessional spirits UWA poison permits WA Health Dept poisons permits Australian customs APVMA Radiological Council WA National Security Australian Government
Chemical Holdings	• If the item (same supplier and prod. No.) is in the ChemAlert database, then it has been added to your site holdings.	WorkSafe WA Chemicals

Issue	Actions/Requirements	Links
	• If it isn't in the ChemAlert database contact the ChemAlert administrator to have it added. • Ensure that the site holdings are updated annually. • Report loss or diversion of chemicals of concern to your laboratory/facility managers.	ChemAlert Administrator email
Purchasing /Acquisition	Complete a Safe Purchase Assessment Form for hazardous or dangerous items	UWA Safe Purchasing
Importation	Ensure you have the necessary permits arranged before you import a chemical.	
Chemical Risk Assessment **Chemical Risk Assessment**	The type of chemical risk assessment will be determined by the number and nature of the chemical(s), and the task/environment in which they will be used. The types of chemical risk assessment include: • Chemical Risk Assessment • Process Chemical Risk Assessment (normally for laboratories only) Ensure the following: • A chemical risk assessment is completed and documented for all hazardous or dangerous chemicals.	UWA Chemical Risk Assessment WorkSafe WA Chemicals

Issue	Actions/Requirements	Links
Contd.	The chemical can be included in a generic risk assessment or as an individual risk assessment and must include: • identifying the hazards and risks associated with the chemical/activities. • implementing controls to reduce risks • provision for reviews of the effectiveness of the chemical risk assessment. • Ensure there are arrangements so that all staff and students are familiar with and can access the chemical risk assessments.	
Storage & Handling **Storage & Handling Contd.**	• Segregate dry reagents and chemicals from wet ones (see AS/NZS 2243.10) • Store as per requirements specified by the manufacturer/supplier on the container or M/SDS • Where necessary store in bunded areas or on trays to contain spills/leaks • *Dangerous Goods:* • must be separated and segregated according to quantities and incompatibilities listed in section 10 of the M/SDS	UWA Lab Housekeeping SafeWork Australia Chemicals in the Workplace

Issue	Actions/Requirements	Links
	• Chemical cupboards and cabinets must meet relevant Australian Standards (AS1940; AS3780) Pressurised gas cylinders must be secured. Where possible have gas piped into a lab.	
Signage	Entry signage is in place and up to date. Cupboards, lockers, and refrigerators used for storing chemicals are signed to indicate the type of chemicals (e.g. Class) being stored. Additional signs where required, e.g. “do not use to store food”, are displayed. Where manifest quantities of dangerous goods are stored appropriate placarding is displayed.	SafeWork Australia Signage
Health Monitoring	• You have checked if monitoring is required and, where it is, baseline samples have been taken prior to work with the	UWA Carcinogens & Mutagens approvals WorkSafe Australia Health Monitoring

Issue	Actions/Requirements	Links
	reagent commencing. A sampling schedule has been organised. • For Scheduled Carcinogenic Substances the UWA Carcinogenic and Mutagenic Substances Committee and WorkSafe have approved use, storage, handling, biomonitoring, and disposal of the substance before purchase of the reagents. Records must be kept for thirty years for each person who works with substances requiring health monitoring.	WorkSafe WA Health Surveillance
Training	• Check the M/SDS to see if the chemical requires specialised training (in addition to standard chemical handling). • All staff and students using the chemical must receive training and be assessed as competent prior to working with the chemical. • Keep records of training and competency.	UWA Induction and Training UWA Lab Safety Course
Waste Management	Plan waste management before working with a chemical/s. Regularly dispose of unwanted or waste reagents using UWA's recycling arrangements or biannual waste disposal arrangements. For urgent issues contact the chemical safety specialist at S & W.	UWA Chemical Recycling

Issue	Actions/Requirements	Links
Access Arrangements	By law access to: • scheduled carcinogens, • some scheduled poisons, • radioactive materials, • and precursor drugs must be strictly controlled and documented. Holdings of Chemicals of security concern must be secured, and stocks regularly reconciled to detect theft or diversion. Access to scheduled veterinary chemicals must be limited to only registered veterinary practitioners or staff/students directly under their control. Ammonium nitrate fertilisers must be secured against theft and diversion.	OSH, 1996 Regulations WA poison permits ARPANSA The Australia Group National Chemical Security APVMA DMP Ammonium nitrate.pdf

Issue	Actions/Requirements	Links
Emergency Procedures	• Emergency numbers prominently displayed. • Emergency procedures and requirements (as outlined in the MSDS) are available. • First aid supplies, and training, are suitable for the chemicals used and stored. • Suitable spill kits are available • Remoteness or other complicating factors have been considered when developing your emergency procedures.	SafeWork Australia Emergency Plans

6. S&H Due Diligence Responsibilities

UWA and, all Workers, have obligations under the WHS Act to manage chemicals and thus reduce the risks they pose to ourselves and others.

Table 2. Chemical Management Due Diligence Responsibilities.

Position	Accountabilities
Senior Executive Management	To seek assurance from Heads of Schools, Heads of Research or Business Unit Directors that chemical risks within their portfolio are being appropriately managed.
Heads of School, Heads of Research and Business Unit Directors etc.	To ensure all chemical risks within their work area are managed by responsible Managers / Supervisors.
Managers / Supervisors	To communicate and consult with Workers to understand chemical hazards in their area and ensure appropriate risk controls are implemented in a timely manner. Managers / Supervisors must monitor, and review controls implemented to ensure risks are abated.
Staff and Students	To identify, assess and where possible control hazards and risks within their area of work. Where the implementation of risk controls exceeds a Worker's capability or authority to manage identified hazards, they must work with their immediate Manager / Supervisor and/or UWA Management in managing identified risks.
Visitors	To report all chemical hazards, incidents or near misses they are involved in to the local area UWA Staff.

7. Dictionary

Chemical safety uses terms that have slightly different meanings from their common use ones. The following table defines terms that have been used in this document. Acronyms are defined here too.

Table 3. Terms defined.

Term	**Definition** for the purpose of this document
APVMA	Australian Pesticides and Veterinary Authority
ARPANSA	Australian Radiation Protection and Nuclear Safety Agency
Chemicals of Security Concern	This is a list of chemicals that have been used to make bombs or toxic weapons. 15 are categorised as particularly high risk and 81 as high risk.
Dangerous Goods	Chemicals assigned to one of 9 classes bases on harmful action e.g. flammable liquids (DG class 3) or toxics (DG class 6.1).
License	Authorisation to make and/or sell types of poisons
M/SDS	Material Safety Data Sheet/Safety Data Sheet
Manifest Quantities	A quantity of dangerous goods greater than the quantity specified in relation to those goods in the column headed 'Manifest Quantity in Schedule 1 - Storage and Handling Regulations, 2007.
Permit	Authorisation to use and hold types of poisons
PG	Packing Group - this is the grading of danger within a class of division according to the relative hazard presented by the material. It is represented by roman numerals. I = great danger, II = medium danger, and III = minor danger.
Placarding	Panel fixed to a building, vehicle, or container to alert people that it holds dangerous goods at or above a legislative threshold. The threshold is different for different substances; more hazardous substances have a lower placarding threshold than less hazardous ones.
Precursor chemical	A chemical which can be used to make illicit drugs or chemical weapons.
RED	The most dangerous colour banding category within the ChemAlert system. Red items pose significant health problems if a user is exposed to them.
S2 to S9	Schedules of poisons outlined is the SUSMP from the TGA.

Term	**Definition** for the purpose of this document
Schedule 5.4, .5.5, 5.6	Schedules of carcinogens outlined in the Occupational Health & Safety Act, 1996
SUSMP	Standard for the Uniform Scheduling Medicines and Poisons
TGA	Therapeutic Goods Administration

8. Related and Supporting Documents

8.1 Legislation:

a) Dangerous Goods Safety Act 2004 (WA)
b) Occupational Safety & Health Act 1984 (WA)
c) Occupational Safety & Health Regulations 1996 (WA)
d) Work Health and Safety Act 2020 (WA)

8.2 Standards and Codes of Practice

a) AS/NZS 2243.10 Safety in Laboratories Part 10: Storage of chemicals.
b) AS1940: The storage and handling of flammable and combustible liquids.
c) AS3780: The storage and handling of corrosive substances.
d) AS/NZS ISO 45001 - Requirements with guidance for use OHS Management systems.
e) Managing risks of hazardous chemicals in the workplace 2020. SafeWork Australia.

8.3 Related UWA Procedure or Document:

a) UWA S&H Policy
b) UWA S&H 'Our Commitment' Statement
c) UWA S&H Strategic Plan 2021 to 2025
d) UWA S&H Leadership and Governance Framework

8.4 Supporting Documents:

a) UWA S&H Risk Register
b) UWA S&H Local Area Risk Register Template
c) UWA S&H Pre-Purchase Evaluation Risk Assessment Template
d) UWA S&H Chemical Risk Assessment Template

e) UWA S&H General Risk Assessment Template
f) UWA S&H Standard Operating Procedure (SOP) Template
g) UWA S&H Safe Work Method Statement (SWMS) Template

9. Current and Previous Versions

Version Number	Procedure Owner	Executive Approver	Date Approved
1	Head of Safety	Senior Deputy Vice Chancellor	