



Procedure

Chemical management procedure

Version: 1.1 | **Version effective:** 29/03/2022

Audience

Department-wide

Purpose

This procedure outlines the process to ensure that health and safety risks from [chemicals](#) are identified and managed at Department of Education (department) workplaces; and provides the process for chemical purchasing, stock management, risk assessment, safe use, disposal and review.

Overview

Chemical management is necessary to ensure the safety of people, property and the environment and to meet legislative requirements of the *Work Health and Safety Act 2011* (Qld) and *Work Health and Safety Regulation 2011* (Qld) (*Part 7.1 – Hazardous Chemicals*). The department uses a lifecycle risk management approach for chemical management which includes a Chemical management plan (CMP) to provide safe working and learning environments that meet compliance requirements.

Responsibilities

Employees

- Actively participate in consultation, completion of chemical management actions and training as instructed by their supervisor/line manager.
- Be aware of [prohibited chemicals](#), [carcinogens](#) and [chemicals requiring health surveillance](#) and ensure they are not purchased or used at department workplaces.
- Manage the risks of harm to people, property and the environment in the purchase, storage, use, generation and disposal of chemicals.
- Report hazards, incidents/near misses or injuries/illnesses as per the [Health, Safety and Wellbeing \(HSW\) incident management](#) procedure.

Employees with assigned chemical management plan (CMP) roles

- Ensure that CMP actions are completed, communicated (where applicable) and recorded.

All contractors and others (e.g. non-departmental entities, volunteers, visitors and pre-service teachers)

- Comply with safety and emergency procedures as provided by the workplace.
- Consult, cooperate and coordinate with the nominated department contact:
 - about intent to introduce hazardous chemicals and/or dangerous goods onto department sites
 - to provide relevant information to ensure the safety of department employees, students and others when undertaking activities in department workplaces e.g. list of hazardous chemicals, safe work method statements, risk assessments etc
 - to raise any concerns and report incidents immediately.

Supervisors/Line managers

Ensure in their area of responsibility:

- employees and others are provided supervision, information and support to safely implement the department's chemical management system.
- persons using or managing chemicals receive local induction and instruction that addresses specific chemical hazard management and local processes used to comply with this procedure.
- keep storage quantities to a minimum to meet operational needs to minimise risks associated with excessive and long term storage.
- equipment appropriate to the safe storage, use and emergency response for chemical holdings is available, maintained and readily accessible.
- only authorised employees access chemical delivery, storage and preparation areas.
- stocktake is conducted at least annually and Chemwatch records are updated.
- records required by this procedure are kept current.

Principals/Managers of business units

- Approve, implement and maintain oversight of the workplace's CMP in consultation with employees to ensure the effective management of chemical risks on site and compliance with legislative requirements.
- Make available appropriate resources (e.g. time, financial, preventative/corrective controls, training, and information) to support the lifecycle management of chemicals in the workplace.

Ensure:

- employees are provided local induction and training relevant to their role to safely store, use and manage chemicals in line with this procedure, to respond to chemical emergencies and to access chemical information.
- contractors and others conducting activities with, or near where chemicals are used or stored are aware of relevant chemical hazards and understand and follow requirements in this procedure.
- the site hazardous chemical register (including vendor SDS) is current, maintained in Chemwatch and is readily accessible to employees.

- external agencies that share department facilities provide a list of hazardous chemicals and dangerous goods stored and these are added to the site hazardous chemical register.
- systems are in place to update all hard copy records to maintain currency as per this procedure where records are not maintained electronically.
- all employees are aware of the pre-purchase chemical risk assessment process and use it to manage the entry of chemical hazards and prevent entry of [prohibited chemicals](#), carcinogens or chemicals that require health surveillance, into the workplace.
- first aid, fire and emergency systems or controls identified through chemical risk assessment are resourced, available and maintained and confirm all relevant emergency contact telephone numbers are displayed in prominent locations at the workplace (e.g. near where chemicals are stored).
- chemical incidents are recorded, notified and investigated in line with the [HSW incident management](#) procedure.
- chemical selection for pest management uses an environmentally sensitive approach that presents the least hazard to people, property and the environment; and considers the engagement of licenced contractors to provide advice and/or pest management services.
- the school/workplace leadership team know how to access and extract information from Chemwatch for compliance and emergency response purposes.

Local Health, safety and wellbeing (HSW) Committee/Forum

- Support the continuous improvement of the workplace's chemical management practices through the quarterly review, progress tracking and maintenance of the CMP.

Directors, Regional Directors/Assistant Directors General

- Ensure principals and managers of business units effectively identify chemical hazards and implement risk management strategies in line with Department procedures and legislation.

Process

Process tasks may be undertaken by a variety of roles in school and corporate environments depending on the size of the workplace, the local division of tasks and the type and quantity of chemicals held on site. Workplaces are to determine the most appropriate person to conduct tasks in the process. Refer to [Chemical management system flowchart](#) for an overview of the chemical management system.

Implement the chemical management system

Chemical management plan (CMP)

Principal/Managers of business units complete a [chemical management plan](#) for the workplace:

- Assign CMP roles in consultation with employees and communicate CMP requirements.
- Add the CMP as a standing agenda item for the local HSW Committee to enable quarterly monitoring and review.
- Ensure employees access Chemwatch to complete chemical management processes required in this procedure.

- Identify the need for and support the completion of any required training for those employees listed on the CMP. For example the [Chemical management training course](#) (DoE employees only) within QLearn Safety

Data Sheets (SDS)

Employees:

- Access the vendor SDS direct from the supplier or from Chemwatch and review to ensure hazards can be managed by the workplace before purchase and first use of a chemical.

Principal/manager of business units:

- Determine, in consultation with relevant employees, if SDS are to be made available and readily accessible in Chemwatch or as hard copies
 - ensure employees know how to access SDS in the workplace.

1. Pre-purchase hazard management

Employees:

- Complete the [pre-purchase chemical risk assessment template](#) prior to purchasing any chemicals
 - do not purchase the product if an SDS is not available
 - confirm that chemical hazards can be managed in your workplace and record required controls on the assessment.
 OR
 - review and update any existing pre-purchase risk assessment for the specific chemical before purchasing.
- Submit pre-purchase chemical risk assessment to assigned CMP role for approval. Re-approval is not required if the previous assessment remains in date and chemical hazards can be managed.

Assigned CMP role:

- Approve/reject pre-purchase chemical risk assessment as per the template.

2. Stock management

Receiving chemicals including safe storage

Assigned CMP roles:

- On receipt, store and manage chemicals as per SDS and pre-purchase risk assessment
 - apply separation and segregation distances to dangerous goods.
- Update the Chemwatch manifest by adding the current vendor SDS and stock volumes
 - attach the approved pre-purchase risk assessment and any licencing/approvals information to the relevant chemical(s) in the Chemwatch manifest
 - ensure any corresponding hard copy documents are updated and readily accessible.

Managing consumer chemicals

Employees:

- Manage consumer chemicals according to the pre-purchase chemical risk assessment, SDS (where available) and original label directions when used in line with normal household/office use.
- When used beyond normal household or office use or decanted or transferred to other containers, manage in Chemwatch as a workplace chemical as prescribed by this procedure.

Managing regulatory compliance elements

Assigned CMP roles:

Use the Chemwatch manifest (stock list) to:

- verify the hazardous chemical register is accurate and maintained.
- confirm chemicals are stored according to their SDS incompatibility requirements.
- review and action identified Chemwatch placard information
 - Install placards as a visual warning if the workplace stores dangerous goods exceeding minor storage quantities e.g. > 250 L petrol or flammable solvents and remove placarding when it is no longer required.
- display safety signage on all designated chemical stores to notify of specific chemical hazards.
- advise Principal/managers of business units when manifest quantities approach or exceed prescribed manifest quantity workplaces (MQW) limits e.g. >2,500 L petrol or flammable solvents.

Principals/Managers:

- Ensure employees know how to access and interpret the hazardous chemical register.
- Provide information to the Health and Safety Regulator if the workplace stores dangerous goods exceeding prescribed MQW limits
 - ensure MQW information is maintained in the workplace and removed promptly when the workplace no longer meets MQW criteria.

3. Risk assessment

Employees, Assigned CMP roles:

- Review the Chemwatch manifest and identify Chemwatch hazard categories to determine risk assessment requirements.
- Complete the following minimum risk management practices in consultation with chemical users:
 - Grey (0), blue (1) or yellow (2) category chemicals and consumer chemicals - manage according to the pre-purchase chemical risk assessment, label directions, SDS and any additional supporting information e.g. SOPs, storage guidance, laboratory reference manuals
 - manage as for 'orange (3)' and 'red (4)' chemicals where there is uncertainty about the degree of risk, or the chemical is held in placard quantities.

- Orange (3) and red (4) category chemicals - conduct risk assessments in consultation with chemical users by completing both 'health exposure' and 'storage' risk assessment tabs for the chemical in Chemwatch:
 - complete the Chemwatch risk assessment approval process ensuring specific site hazards, student considerations and physical hazards not addressed in Chemwatch are recorded (reference existing risk management processes where relevant)
 - print the assessments and make available near where chemicals are used/stored
 - complete a [safe operating procedure](#) where the risk assessment identifies a process as having a high (orange, 3) or extreme (red, 4) risk level
 - where these chemicals are used in curriculum activities reference the health exposure chemical risk assessment and manage as per the [Managing risks in school curriculum activities](#) procedure.
- Review, and if necessary revise control measures when things change, measures are unsuitable or an incident occurs, and formally every 5 years.
- When using ionising (e.g. radioisotopes) and/or non-ionising (e.g. lasers) radiation sources, follow the Australian Radiation and Protection and Nuclear Safety Agency (ARPANSA) guidance booklet '[Safety Guide for the Use of Radiation in Schools](#)'.

Supervisors/Line Managers/Assigned CMP roles:

- Approve risk assessments.
- Conduct risk assessments for placarded/MQW storage.

Principal/managers of business units:

- Ensure control measures used to manage exposure and physical risk, including the provision of personal protective equipment (PPE) and suitable storage are resourced, implemented, maintained and reviewed in the workplace.

Emergency management and response

Line manager/Supervisor/Assigned CMP roles:

- Maintain oversight of effectiveness of risk controls and emergency response including PPE availability and maintenance of first aid, safe disposal, fire and emergency equipment including relevant instruction for employees.
- Ensure that, in area of responsibility, a spill kit and personal protective equipment appropriate for the chemicals stored and used are available and maintained.
- Ensure implementation of emergency preparedness and safety signage required through risk assessment.

Principal/Managers of business units:

- Use risk assessment information to determine any required chemical emergency response processes. Communicate processes to the workplace and record this information in the workplace's Emergency Response Plan.
- Communicate emergency response requirements to employees and others at the workplace and to people in control of adjacent premises who may be exposed to risk in the event of an emergency.

4. Safe chemical use

Implement identified risk controls

Employees:

- Review SDS and chemical risk assessments and implement controls before using chemicals and monitor for effectiveness during chemical use. Update risk assessments as necessary.
- Report and manage incidents as soon as possible as per the HSW Incident management procedure.

Chemical labelling

Employees:

- Follow labelling requirements for all chemical containers as specified in Schedule 9 of the Work Health and Safety Regulation 2011 (Qld) including:
 - maintain chemicals in original containers where possible
 - label containers (including waste) using compliant Globally Harmonized System (GHS) labels e.g. printed from Chemwatch.
- Establish a means for identifying a decanted/diluted/transferred chemical where it is not practical to label the container with the product name e.g. by attaching a tag with correct label information to very small containers.

Supervisor/Line manager:

- Label or sign pipework containing hazardous chemicals.

Management of regulated chemical risks

Employees:

- Use SDS and regulatory information to identify [chemicals of security concern](#) (CSC), [Schedule 7](#) (S7) poisons and [security sensitive ammonium nitrate](#) (SSAN) and ensure permits/licencing/ approvals are in place before approved purchase.
- Where required to apply herbicides in [regulated areas](#), obtain a commercial operator's licence where required by the *Agricultural Chemicals Distribution Control Act 1966*.
- Access current information on the safe, responsible and effective [use of registered agricultural and veterinary \(AgVet\) chemicals](#).
- Supervise students using regulated/AgVet chemicals during curriculum activities.

Supervisors/Line managers:

- Implement requirements and maintain record keeping conditions specified by licences/approvals or permits including secure storage and authorised access.

Principals/Managers of business units:

- Monitor and review processes for the storage, safe use, management and security of regulated chemicals to verify practices meet compliance requirements prescribed by the licencing agency.

- In consultation with relevant employees, develop and document local processes to mitigate the risk of the diversion CSC, S7 poisons and SSAN products into the illicit production of homemade explosives, toxic devices or drugs.
- Review security/risk mitigation measures for managing regulated chemicals annually, or sooner if an incident occurs.
- Report theft of CSC and SSAN to the Queensland Police Service and S7 poisons to Queensland Health.

5. Disposal and review

Disposal

Employees/Assigned CMP roles:

- Package and label chemical waste in a suitable container (as per SDS):
 - clearly mark containers of chemical waste with contents, date and 'waste for disposal'
 - store appropriately according to hazardous nature whilst awaiting collection or in house disposal
 - where the contents of a container are unknown, label as 'UNKNOWN substance, for disposal only' and arrange for licenced disposal as a priority.

Principal/Managers of business units:

- Ensure chemical waste disposal occurs in a timely manner as prescribed by labelling, safety data sheets and/or risk assessment, including the licenced disposal of dangerous goods and hazardous chemical waste.

Stocktake and inspection

Employees/Assigned CMP role:

- Conduct/coordinate an annual stocktake and safety inspection of all areas where chemicals are used and/or stored.
- Update the Chemwatch manifest with stocktake information.

Supervisor/Line manager:

- Review the location's Chemwatch manifest annually to ensure:
 - chemical types, quantities and use are appropriate for the location
 - the overall workplace chemical risk profile is maintained at the lowest practical level.

Principal/Managers of business units/Supervisors/Line managers:

- Provide sufficient time and resources to allow stocktake to be conducted and Chemwatch manifest to be updated.

Record management

Assigned CMP role/Principal/Managers of business units:

- Ensure the following records related to the safe management of chemicals are retained by the site. Records include but are not limited to:
 - pre-purchase chemical and Chemwatch risk assessments
 - hazardous chemical register including vendor SDS
 - risk assessments
 - safe operating procedures
 - training records
 - any atmospheric monitoring/health surveillance records (if applicable e.g. arising from contracted works) as required by Schedule 14 of the Work Health and Safety Regulation 2011 (Qld), and
 - records as required for regulated chemicals.

Governance and compliance monitoring

<i>Role</i>	<i>Specific quality focus</i>	<i>Method of assurance</i>
<i>Assistant Directors General</i>	Support schools to comply with this procedure	<ul style="list-style-type: none"> • Work with principals to support improvement in areas of non-compliance.
<i>Directors, Regional Directors</i>	Oversight of end to end compliance processes for this procedure in schools/non- school workplaces.	<ul style="list-style-type: none"> • Review, advise and provide feedback as required.
<i>Principals/Managers of business units</i>	Oversight of end to end compliance processes of the school/ workplace chemical management process established in accordance with this procedure.	<ul style="list-style-type: none"> • Complete the 'quick check' to determine procedure compliance. • Review chemical management practices annually through the Annual Safety Assessment. • Chemical risks are identified and managed through approved and active CMPs. • Provide the Organisational Safety and Wellbeing Unit the location's Chemwatch account details on request for audit purposes. • Respond to queries and provide clear advice regarding the site wide chemical management process. • Verify placard and manifest quantity chemicals are in place and maintained if required.

<i>Role</i>	<i>Specific quality focus</i>	<i>Method of assurance</i>
<i>Supervisors/Line managers</i>	Ensure the chemical management process is followed and actioned.	<ul style="list-style-type: none"> • Show evidence the chemical management plan is implemented: <ul style="list-style-type: none"> ○ Pre-purchase risk assessments are completed and available. ○ Chemical risk assessments are printed and available. ○ Annual Stocktake is conducted. ○ Chemwatch information is current.
<i>Local HSW Committee</i>	Review CMP quarterly to monitoring the compliance of the school/workplace wide chemical management process as planned and on schedule.	<ul style="list-style-type: none"> • Verify progress as prescribed in the workplace's chemical management plan(s). • Maintenance of the CMP, including ensuring assigned roles remain active. • Record key actions through HSW Committee minutes.

Definitions

Term	Definition
Carcinogens	Known carcinogens are listed in Schedule 10 of the Work Health and Safety Regulation 2011 (Qld). Review s11 of the product SDS to identify carcinogens. See the Chemical management guideline for further information.
Chemicals	<p>Chemicals may be solid, liquid or gas pure substances or mixtures, dangerous goods, hazardous and non-hazardous chemicals, scheduled poisons, controlled substances, waste or by-products. The definition does not include consumer chemicals used in quantities and the way intended by the manufacturer for incidental use (see consumer chemical).</p> <p>Dangerous Goods are classified as dangerous due to their immediate potential to harm people, property or the environment under the Australian Code for the Transport of Dangerous Goods by Road or Rail, 7th Edition (ADG Code 7).</p> <p>A hazardous chemical is a substance classified under the GHS that has the potential to cause acute or chronic health effects, damage to property or environment as defined in section 2 of a safety data sheet.</p> <p>A scheduled poison is a chemical listed in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).</p>

Term	Definition
	A controlled substance is a drug or poison listed in a regulation that is prohibited or requires licencing/approvals/permits or declarations for use.
Chemwatch	<p>Chemwatch is an inventory database system consisting of modules and tools to assist in the local management of chemicals. The database provides for the maintenance of stock and chemical registers, retrieval of SDS, risk assessments, GHS compliant label printing and storage reports for incompatible chemicals.</p> <p>Each department workplace has a unique Chemwatch account. To access:</p> <ul style="list-style-type: none"> schools contact their Regional Health and Safety Consultant non-school business units contact the Organisational Health, Safety and Wellbeing Unit (OSW) at HSW@qed.qld.gov.au
Chemwatch hazard categories	<p>Chemwatch hazard categories are assigned a colour and number based on associated hazards and potential risks for normal use:</p> <ul style="list-style-type: none"> Grey (0) non-hazardous Blue (1) low hazard Yellow (2) moderate hazard Orange (3) high hazard Red (4) extreme hazard <p>The hazard category is used to determine risk assessment requirements. Orange and red category chemicals require Chemwatch ILO (International Labour Organisation) risk assessments for chemical health exposure control and UN (United Nations) assessments to manage storage and transport risks.</p>
Chemwatch manifest	A stock list held in Chemwatch that contains the safety data sheets and information about the name, location and quantities of your chemicals based on a site map.
Consumer chemical	A consumer chemical is a product that is packed or repacked primarily for use by a household consumer or for use in an office. In addition the product is packed in the way and quantity in which it is intended to be used by a household or office consumer. See also 'normal household or office use'.
Globally Harmonized System of Classification and Labelling of Chemicals (GHS)	The GHS published by the United Nations as modified under Schedule 6 of the Work Health and Safety Regulation 2011 (Qld) standardises hazard communication on labels and SDS in Australia. Workplaces are to ensure labels comply with GHS classification criteria – this can be achieved by using Chemwatch labels.
Hazardous chemical register	A list of the product names of all hazardous chemicals used, handled or stored at the workplace accompanied by the current vendor safety data sheets as required by the Work Health and Safety Regulation 2011 (Qld), s346. It must be kept current and maintained as new hazardous chemicals are introduced to the workplace or when the

Term	Definition
	use of a particular hazardous chemical is discontinued.
Health surveillance	Chemicals that require health monitoring are listed in Schedule 14 of the Work Health and Safety Regulation 2011 (Qld). See the Chemical management guideline for further information.
Minor storage quantities	Quantities of dangerous goods less than listed in the Work Health and Safety Regulation 2011 (Qld) Schedule 11 column 4.
Manifest Quantity workplace (MQW)	A workplace that stores quantities of dangerous goods that exceed those specified in the Work Health and Safety Regulation 2011 (Qld) Schedule 11 column 5. Where quantities are, or may be exceeded, the Health and Safety Regulator must be informed and specified records including a MQW manifest made available and maintained. Note: the MQW manifest is NOT a Chemwatch manifest or hazardous chemical register.
Normal household or office use	<p>Normal household or office use is using a hazardous consumer chemical in:</p> <ul style="list-style-type: none"> • a quantity consistent with household or office use; and • a manner consistent with household or office use; and • a way that is incidental to the nature of the work carried out by an employee using the chemical e.g. in a minor or occasional way. <p>If you use a consumer product in the workplace in this way, then the chemical is considered to be a consumer product. Where it is not, it is considered 'beyond normal household use' and is a workplace chemical.</p>
Placard	Placarding is required where quantities of dangerous goods on site exceed quantities listed in the Work Health and Safety Regulation 2011 (Qld), Schedule 11 column 4. Install placards as per the Work Health and Safety Regulation 2011 (Qld), Schedule 13.
Separation and segregation	Mandatory guidance for the safe storage of dangerous goods that advises of separation and segregation distances between chemicals to protect from unwanted reaction, fire and explosion. Refer to the Chemical management guideline for further information.
Vendor Safety data sheet (SDS)	<p>A SDS authored by the manufacturer or supplier of the chemical. The manufacturer/supplier details are provided in section 1 of the SDS and will match the information on the chemical label.</p> <p>A valid SDS is current (5 years from the date produced), authored by the Australian manufacturer/importer (brand specific) and in GHS format.</p>

Legislation

- [Work Health and Safety Act 2011 \(Qld\)](#)
- [Work Health and Safety Regulation 2011 \(Qld\)](#)
- [Environmental Protection Regulation 2008 \(Qld\)](#)
- [Medicines and Poisons \(Poisons and Prohibited Substances\) Regulation 2021](#)
- [Medicines and Poisons \(Pest Management Activities\) Regulation 2021](#)
- [Agricultural Chemicals Distribution Control Act 1966 \(Qld\)](#)
- [Biosecurity Act 2014 \(Qld\)](#)

Delegations/Authorisations

- Nil

Policies and procedures in this group

- Nil

Supporting information for this procedure

- [Chemical management system flowchart](#)

Other resources

- [Health, safety and wellbeing incident management procedure](#)
- [Managing first aid in the workplace procedure](#)
- [Managing risks in school curriculum activities procedure](#)
- [Disaster and emergency management procedure](#)
- [Chemical management guideline](#)
- [Chemical management plan](#)
- [Pre-purchase chemical risk assessment](#)
- [Prohibited and high risk chemicals in departmental workplaces](#)
- [Chemical safe operating procedure template](#)
- [Chemwatch modules](#) (DoE employees only)

Contact

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27/01/2024

Superseded versions

Previous seven years shown. Minor version updates not included.

1.0 Chemical management procedure

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