Chemicals of Security Concern Procedure

Section 1 - Purpose and Scope

(1) This Procedure provides the minimum requirements at The University of Queensland (UQ) for managing Chemicals of Security Concern (CSC) and must be read in conjunction with other UQ procedures pertaining to chemical safety and other relevant information on the Health, Safety and Wellness Division (HSW Division) webpage.

(2) This Procedure applies to any UQ worker at any UQ site involved in the acquisition, storage, use and disposal of CSC.

(3) UQ's requirements outlined in this Procedure are based on the National Code of Practice for Chemicals of Security Concern (the Code). This Code provides a framework for the development, implementation and maintenance of high-level security and traceability measures to mitigate the risk of diversion or misuse of CSC.

(4) While this Procedure focuses on the 15 chemicals specifically listed in the Code (Appendix A), the Code recommends applying the same security management to a further 81 lower risk chemicals that can be similarly used for illegal activity.

Section 2 - Process and Key Controls

(5) The following key controls apply to the management of CSCs at UQ:

a. Secure storage proportionate to the risks associated with the CSC and the potential for their unauthorised access or removal.
b. Training and induction to address requirements for the acquisition, handling, storage, use and disposal of CSC.
c. Purchasing and acquisition approval of CSC - purchases of CSC using a UQ corporate credit card is prohibited.
d. General management:
    i. inventory management and review;
    ii. handling and use;
    iii. internal transfer / transport;
    iv. waste management; and
    v. incident management.

Section 3 - Key Requirements

CSC Secure Storage - Risk Assessment

(6) Risk assessments must specifically address the security risk of the CSC and the potential for unauthorised access and removal of these materials. The person who is the end user of the CSC must complete a risk assessment.

(7) An initial risk assessment must be conducted to evaluate the effectiveness of existing CSC management controls and to identify additional controls required to meet CSC security requirements as informed by this Procedure and the

Code.

(8) A standalone risk assessment may be undertaken for security risks, or the security risk aspects of the CSC may be included in an overall CSC risk assessment which is to include all activities (e.g. transport).

(9) Risk assessments must be completed in UQSafe as it allows for marking a risk assessment as "Restricted". The use of this function is encouraged to prevent the risk assessments becoming an uncontrolled source of information regarding storage of CSCs.

Training and Induction

(10) It is important that everyone involved in the acquisition, handling, storage, use and disposal of these materials is made aware of the processes and expectations concerning material governance. The level of detail provided in CSC training should align with the level of risk of diversion or misuse of CSCs, and the degree of involvement of personnel in their procurement, storage, use and disposal.

(11) Training at UQ is conducted by the following processes:

a. Basic awareness training is included for all personnel via the online General HSW Induction and the Annual Fire Safety training modules.
b. For UQ workers more closely involved in their use (e.g. laboratory personnel), further training is available via the online Chemical Safety and Lab Safety Modules.
c. Additional HSW training for Supervisors and Managers details specific overarching responsibilities.

CSC Purchasing and Acquisition Approval

(12) Purchase or acquisition of CSC by any means, including by internal transfer, donation, or product samples, must be managed by each Organisational Unit in a manner that ensures appropriate approval prior to acquisition through the appropriate UniFi workflow or an alternative auditable record. The eProcurement module of UniFi includes an approval workflow for Controlled Substances (CSCs are one type of Controlled Substance), which requires the purchase of them to be approved by a UQ staff member nominated as a Controlled Substances Officer/Manager for the relevant Organisational Unit (see clauses 38-39 and the Procurement Procedure).

(13) Purchases of CSC using corporate credit cards is prohibited without direct approval from the Director, Health, Safety and Wellness, as outlined in the Outgoing Payments Procedure.

General Management of CSCs

(14) UQ has several systems that can support CSC management including Chemwatch, UQSafe, UniFi and Chemical Waste management through the UQ Science Store.

(15) Organisational Units must consider the below points of control when managing CSC at UQ to prevent theft/diversion.

> Note: Contractors working to an established internal CSC management procedure should be preferred suppliers.

Delivery Point Security Management

(16) CSCs delivered to UQ must be delivered to a location equipped with adequate facilities and, where reasonably practicable, oversight by trained UQ workers for the secure and safe storage of the materials. Delivered goods must not be accessible by unauthorised persons. Delivery point security management protocols include:

a. use of UQ staff and visitor photo identification to verify identity;
b. registration of UQ staff and supervision of visitors (e.g. signing in and out);
c. limited and supervised/secured access points; and
d. restricted vehicle access.

(17) Several areas of UQ, including the Science Store, have supervised delivery points for chemicals. For other areas without single controlled delivery points, alternative arrangements must be implemented to ensure the security of the materials with the primary intention of ensuring that access to CSC is not available to unauthorised persons. Where facilities are available at the delivery point, CSC must be added to the site inventory upon arrival (see clauses 20-21) and the records updated when the material is collected from the delivery point by the authorised end user.

(18) Physical secure storage measures may include, but are not restricted to:

a. Secure storage areas (locked doors and dedicated storage cabinets).
b. Secure electronic access (e.g. swipe card) to areas/buildings/floors/rooms or keyed lift access.

(19) Consideration must be given and resources must be available in these secured areas to ensure that incompatible chemicals are appropriately segregated and, where necessary, special storage requirements (e.g. refrigeration) are available.

Inventory Management

(20) The Organisational Unit must ensure there is a local register that identifies the storage location and quantity of CSC. Chemwatch is UQ's central register/repository and manifest database that supports CSC management. Registers are only accessed by Organisational Units' authorised personnel with CSC flagged in the manifest. Register details must be appropriately managed to ensure that registers do not become an accessible source of information on location of CSC.

(21) Organisational Units can update the location's inventory in Chemwatch live or by providing a spreadsheet in the appropriate format to the UQ Chemwatch administrator (see UQ Chemwatch site for contact details) for a quarterly upload.

End-use Storage and Management

(22) Physical access to CSC must be restricted to authorised personnel (see above clauses 16-19, where personnel management control is outlined).

(23) Controlling physical access to CSC can be achieved through a range of measures, including the use of secure storage areas (e.g. locked doors and storage cabinets), and/or secure electronic access (e.g. swipe card) to areas/buildings/floors/rooms and/or keyed lift access.

(24) The most appropriate measures for a given area will be informed by the risk assessment process that may highlight gaps in the local infrastructure. These will require support from senior management and their advisory team to ensure risk management controls for systems and infrastructure are implemented.

(25) All standard UQ chemical safety management procedures must be in place including isolation from ignition sources, incompatibility and special storage conditions (e.g. refrigeration, inert atmosphere).

(26) The Organisational Unit must ensure there is a process in place to record the normal pattern of use by authorised trained personnel. This can be reflected within a risk assessment or a Standard Operating Procedure (SOP) for the area which will outline the records required for the CSC arrival, daily use (if reasonably practicable) and the disposal of empty CSC containers. The Organisational Unit has the discretion of implementing a record keeping system for controlling the use of CSC, including transfers and inventory updates.

Waste Management

(27) The Organisational Unit must ensure CSC waste is not left unsecured.

(28) Disposal of CSC to waste is best achieved by using the UQ Science Store chemical waste process, which includes barcoding of waste to aid tracking. CSC waste must be collected in dedicated, appropriately labelled chemical waste containers observing standard incompatibility management procedures and returned to the Science Store, if that is the appropriate waste stream.

Transport of CSC

(29) If CSC are required to be transported to other UQ locations, the Organisational Unit must ensure there are processes to guarantee the security of the materials during transport, on arrival at the destination, and to account for their use and disposal at the new destination.

(30) Controls for the management of CSC transported to other UQ locations include:

a. Transfer only by trained persons in authorised vehicles and with appropriate manifest and spill kit on board;
b. Ensuring chemicals are secure during transport while observing other transport requirements;
c. Not leaving the vehicle containing CSC unattended;
d. Ensuring materials are transported to and received by the intended location / recipient; and
e. Recording the transfer in the recipient usage system and amending local inventory as required.

(31) In some situations, it may be appropriate to contract an external specialist firm to arrange for the secure transport of the chemicals, as well as the correct packaging and shipment of the CSC. These contractors should be preferred suppliers.

Incident Management

(32) UQ workers must immediately report any suspicious behaviour or suspected diversion of CSC material to their Supervisor and to the Organisational Unit's Work Health and Safety Coordinator (WHSC) /HSW Manager and the Controlled Substances Officer. At this point, the HSW Manager or Supervisor may decide that it is appropriate to contact UQ Security and the HSW Division.

(33) Once the area or situation has been stabilised, an incident investigation must be conducted and outcomes reported to the HSW Division by completing an incident report in UQSafe and inviting the Director, HSW Division to view the report. Depending on the nature of the event, the investigation may require local representatives, HSW Division representatives and/or external inspectors.

(34) The HSW Division will consult with the Property and Facilities Division/UQ Security and then determine if a report to the National Security Hotline is required.

Section 4 - Roles, Responsibilities and Accountabilities

UQ Senior Managers (Executive Deans, Institute Directors, Heads of Schools, Directors)

(35) UQ Senior Managers in Organisational Units are responsible for the prevention of illegal diversion of CSC in their areas of control. They are responsible for ensuring CSC are controlled in accordance with this Procedure and the Code and must ensure that staff, students and visitors are informed of and comply with the set management of these substances.

(36) These managers are accountable for ensuring that:

a. all areas under their control are provided with appropriate and adequate physical and personnel resources to prevent illegal diversion of CSC;
b. a person or persons of appropriate qualification and standing is appointed to the role of Controlled Substance Officer to assist with the appropriate management of CSC on their behalf, and to ensure that the appointee/s meet their obligations; and
c. all personnel in their areas of control are given access to appropriate training and supervision for the safe and secure use of CSC, and to prevent the illegal diversion of these materials.

(37) The Head of Organisational Unit has the responsibility to nominate an appropriately qualified and competent person, or persons (e.g. HSW Manager/WHSC/Floor Manager), as Controlled Substances Officer (CSO) for their specific unit.

Controlled Substances Officer (CSO)

(38) The CSO appointed by the Head of the Organisational Unit must be appropriately qualified and competent to act as the CSO.

(39) The CSO is responsible for:

a. advising the Head of Organisational Unit on the management and use of CSC in their area, as required by the Code and this Procedure;
b. functioning as the Controlled Substances Commodity approver to review the acquisition of CSC in UniFi;
c. providing advice on and/or assisting supervisors and UQ workers with the development of, and review of, risk assessments;
d. assisting in conducting the six monthly stocktakes of CSC inventories;
e. supporting annual inventory checks for other areas/Organisational Units as required or requested; and
f. providing a formal report to the relevant Head of Organisational Unit on the outcome of the annual inventory check (or six monthly stocktake, if determined by the risk assessment) and report any discrepancies to the Director, HSW Division.

Supervisors

(40) Supervisors are responsible for ensuring:

a. CSC are controlled in accordance with this Procedure and the Code and ensuring that UQ workers are informed of their obligations under this Procedure;
b. requests for CSC and their proposed use are legitimate for the work and that quantities requested are not excessive;
c. the individual requesting the CSC, and the end users under their supervision, are aware of their responsibilities under this Procedure and the Code;
d. the correct supply chain and acquisition procedure is followed (refer to clauses 12-13);
e. that all CSC are registered on the local manifest;
f. a risk assessment is undertaken and approved for the security and safe use of the CSC; product stewardship;
g. any discrepancies or incidents are reported to the Head of the Organisational Unit and the CSO;
h. appropriate inventory management and periodic inventory and stocktakes are conducted, at least a biannual stocktake of CSC under their control;
i. the establishment and maintenance of stringent access control to CSC; and

j. appropriate waste management and control protocols are established and followed.

UQ Workers

(41) All UQ workers who order, use, store, transport or manage CSC must comply with this Procedure and the Code and any reasonable direction provided by their supervisor. UQ workers must ensure that:

a. all required training and risk assessments for the safe and secure use of CSC are undertaken (invite the CSO to the risk assessment if it is restricted);
b. all appropriate security and safety control systems are adhered to;
c. the appropriate control over CSC provided for their use is maintained;
d. the use of CSC is recorded in the relevant system and assist with the update of the relevant inventory;
e. unused CSC are returned to the designated stores;
f. CSC waste is managed through the UQ chemical waste procedure (Chemical Waste); and
g. any suspicious behaviour is reported to the direct supervisor and CSO.

UQ Security

(42) UQ Security is responsible for:

a. notifying the HSW Division of any suspected or verified break-in or theft in areas holding chemicals, especially if the current inventory reflects storage of CSC;
b. providing support to isolate and secure areas of CSC risk; and
c. responding to situations where the integrity of a CSC storage area is compromised by human or natural intervention (e.g. cyclone damage).

Health, Safety and Wellness Division (HSW Division)

(43) The HSW Division is responsible for:

a. developing and maintaining guidance material for UQ to meet the requirements of the CSC Code of Practice;
b. maintaining and updating UQ online training modules to maintain awareness of the general risks and requirements for working with CSC;
c. supporting the risk assessment process across UQ;
d. supporting periodic inventory and review of CSC management;
e. providing technical Occupational Hygiene assistance and advice on the appropriate use, storage, disposal and transport of CSC on request; and
f. determining (with UQ Security) whether a report needs to be supplied to the regulator via the National Security Hotline.

Section 5 - Monitoring, Review and Assurance

(44) UQ Senior Managers must ensure robust systems for monitoring, review and corrective actions are in place to meet compliance requirements of the Code, and conduct regular consultation with UQ stakeholders and the appropriate regulator.

(45) Supervisor/Managers are to:

a. assess compliance with this Procedure to demonstrate/confirm its effectiveness;

b. identify, assess and promptly address any deficiencies; and
c. ensure ongoing relevance of the Procedure.

Monitoring Mechanisms

(46) Organisational Units are required to complete annual workplace inspections by Work Health and Safety Coordinator (WHSC) where corrective action plans are developed and recorded, which includes the proper monitoring of requirements for the safe and secure procurement, storage, use and disposal of chemicals. This process will facilitate reporting on the status of the CSC management systems for each Organisational Unit.

(47) Organisational Units should conduct discrete, dedicated six monthly audits of CSC to review inventory and identify any discrepancies.

Section 6 - Recording and Reporting

(48) All reporting and record keeping must be in written form or incorporated into an auditable system, preferably a UQ system, such as UQSafe, UniFi or Chemwatch.

(49) Supervisors must report stocktakes, and discrepancies on those, to Senior Management who will report to the HSW Division through the Organisational Unit WHSC/HSW Manager and/or the Controlled Substances Officer (CSO).

Controlled Substances Officer (CSO) Appointment Record

(50) The HSW Division Safety role nomination form authorised by the Head of the Organisational Unit must be forwarded to the HSW Division. The HSW Division will record this person as the Controlled Substance Commodity approver in UniFi for the relevant business unit or units, and in UQSafe. The nominated CSO will apply for the role on my.UQ/My requests by the 'UniFi User Access' task, attaching nomination and relevant qualifications. Approvals will be processed by Finance and Business Services.

Incident Reporting

(51) UQ workers are responsible for reporting:

a. unauthorised area breaches or any unusual behaviour observed;
b. unexplained loss or removal of CSC material from an area; and
c. discrepancies during stocktakes.

(52) UQ workers that identify an incident that needs to be reported must notify their direct supervisor, who will notify the Organisational Unit WHSC/HSW Manager and/or the Controlled Substances Officer CSO.

(53) The Organisational Unit WHSC or the HSW Manager or the Controlled Substances Officer CSO will then notify HSW Division, who will engage UQ Security.

(54) If a serious breach is suspected:

a. the Director, HSW Division will notify the UQ Integrity Unit and contact the Regulator via The National Security Hotline;
b. the area's security situation will be reassessed by the area CSO in consultation with UQ Security and local management;
c. immediate control actions will be implemented to ensure CSC materials are secured; and
d. the relevant Senior Manager and the HSW Manager or CSO will be contacted for a follow up by the HSW

Division.

Section 7 - Appendix

Definitions

Term	Definition
Chemicals of Security Concern (CSC)	Chemicals that may be diverted or repurposed for terrorist purposes.
Controlled Substances	Chemicals that are regulated by legislation.
Controlled Substances Officer (CSO)	An appropriately qualified and competent person nominated by a UQ Senior Manager to advise them and workers on procurement and general management of CSC.
Product Stewardship	Effective management of the risks associated with chemical products throughout the chemical lifecycle.
UQ workers	For the purposes of this Procedure includes: • staff - continuing, fixed-term, research (contingent funded) and casual staff; • contractors, subcontractors and consultants; • visiting academics and researchers; • affiliates - academic title holders, visiting academics, emeritus professors, adjunct and honorary title-holders, industry fellows and conjoint appointments; • higher degree by research students; and • volunteers and students undertaking work experience.

Chemicals of Security Concern – 15 High Risk Chemicals

Chemical	CAS	Concentration/form
Aluminium phosphide	20859-73-8	Any concentration
Ammonium perchlorate	7790-98-9	Ammonium perchlorate where it is in a water-based solution and the ammonium perchlorate is at a concentration of at least 10%; and Ammonium perchlorate (in any other form) at a concentration of 65% or above.
Chlorine	7782-50-5	Gas only
Hydrogen peroxide	7722-84-1	Hydrogen peroxide in a water-based solution at any concentration; and Hydrogen peroxide (in any other form including a liquid mixture) where the hydrogen peroxide is at a concentration of 15% or above.
Nitric acid	7697-37-2	Nitric acid at a concentration of 30% or above.
Nitromethane	75-52-5	Nitromethane at a concentration of 10% or above.
Potassium chlorate	3811-04-9	Potassium chlorate where it is in a water-based solution and the potassium chlorate makes up at least 10% of that solution; and Potassium chlorate (in any other form) at a concentration of 65% or above.
Potassium cyanide	151-50-8	Any concentration.
Potassium nitrate	7757-79-1	Potassium nitrate where it is in a water-based solution and the potassium nitrate makes up at least 10% of that solution; and Potassium nitrate (in any other form) at a concentration of 65% or above.

Chemical	CAS	Concentration/form
Potassium perchlorate	7778-74-7	Potassium perchlorate where it is in a water-based solution and the potassium perchlorate makes up at least 10% of the solution; and Potassium perchlorate (in any other form) at a concentration of 65% or above.
Sodium azide	26628-22-8	Sodium azide at a concentration of 95% or above.
Sodium chlorate	7775-09-9	Sodium chlorate where it is in a water-based solution and the sodium chlorate is at a concentration of 10% or above; and Sodium chlorate (in any other form) at a concentration of 65% or above.
Sodium cyanide	143-33-9	Any concentration
Sodium nitrate	7631-99-4	Sodium nitrate where it is in a water-based solution and the sodium nitrate is at a concentration of 10% or above; and Sodium nitrate (in any other form) at a concentration of 65% or above.
Sodium perchlorate	7601-89-0	Sodium perchlorate where it is in a water-based solution and the sodium perchlorate is at a concentration of 10% or above; and Sodium perchlorate (in any other form) at a concentration of 65% or above.

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