



GUIDELINE	
Chemical Management	
Scope (Staff):	All Employees
Scope (Area):	CAHS (PCH-Dangerous Goods located only, Community Health, CAMHS)

Contents

Aim	2
Risk.....	2
Definitions	2
Roles and Responsibilities	3
Manager / Supervisor	3
CAHS Employees.....	4
OSH Department.....	4
Contractors.....	4
ChemAlert.....	5
Guideline: General Requirements	5
Classified Chemical Register & Safety Data Sheets (SDS)	5
Risk Assessment, Management & Control	6
Purchasing	8
Transporting.....	8
Storage	9
Labelling.....	9
Decanting Chemicals.....	10
Disposal	10
Training and Supervision	10
Cytotoxic Drugs	11
Hand hygiene requirements.....	11
Audits.....	12
Appendix 1: CAHS Chemical Hazardous Substances Audit Checklist.....	15
Appendix 2: Separation / Segregation Table ChemAlert	17
Appendix 3: GHS Pictograms (Diamonds)	18
Appendix 4: Dangerous Goods Diamonds	19

This guideline must be read in conjunction with the

[CAHS Chemical, Hazardous Substances and Dangerous Goods Management policy.](#)

Aim

This guideline has been developed to ensure the safe management of all Chemicals, Hazardous Substances and Dangerous Goods within all workplaces across the Child and Adolescent Health Service (CAHS).

Risk

Breach of legislative requirements including Duty of Care under WA [Occupational Safety and Health Act 1984](#) and WA [Occupational Safety and Health Regulations 1996](#).

Definitions

Bunding: an enclosure, embankment or wall designed to contain spills of liquids. Both the bunding and the floor must be sufficiently impervious to retain spillage or leakage.

Carcinogen: a substance or mixture that causes cancer. These cancers may take many years to detect, with no warning signs, and diagnosis may not be made until long after exposure stops.

Chemical: includes all hazardous substances and dangerous goods, as well as cytotoxic substances. Chemicals can be in many forms such as liquid, solid, gas or a mixture of these.

ChemAlert: a computer based chemical management web-based database system which contains a register of chemicals that are used within CAHS and assists with effective management. ChemAlert is used across WA Health.

Combustible Liquids: a liquid that is not defined as flammable has a flash point no higher than 93°C and a fire point less than the boiling point.

Cytotoxic Drugs: drugs used primarily to treat cancer and that have been demonstrated to be mutagenic, carcinogenic and teratogenic.

Dangerous Goods: chemicals classified on the basis of immediate physical or chemical hazards, such as fire, explosion, corrosion and toxicity that may affect life, health, property or environment.

Decanting: decanting can involve the manual mixing, diluting or measuring of chemicals. It is often required when chemicals aren't or can't be purchased in the appropriate quantity level.

Employee: a person who is employed directly by CAHS through a contact of employment.

GHS: the Globally Harmonized System of Classification and Labelling of Chemicals. An international set of rules that defines and classifies the hazards of chemical products and communicates health and safety information on labels and safety data sheets.

Hazard: is a situation or object that has the potential to harm a person, property or the environment.

Hazardous Substance: a substance is deemed to be a hazardous substance if it meets the classification criteria specified in the [Approved Criteria for Classifying Hazardous Substances \[NOHSC: 1008 \(2004\) 3rd Edition\]](#) or the GHS classification system.

- This classification is indicated in the SDS and/or the presence of a GHS Diamond on the label. This is indicated as an **amber** or **red** chemical on ChemAlert.

Health Hazards: exposure to chemical usually occurs through inhalation, skin contact or ingestion. Adverse health impacts can be acute (short term) such as headaches, nausea or vomiting, or chronic (long term) such as asthma, dermatitis, nerve damage or cancer.

Hierarchy of Control: system used to minimise or eliminate exposure to hazards. The hierarchy is Elimination (most preferred), Substitution, Isolation, Engineering, Administrative, PPE (least preferred).

Physicochemical Hazards: physical or chemical properties of the substance, mixture or article that pose risks to staff other than health risks. They arise through inappropriate handling or use and can often result in injury to people and / or damage to property as a result of the intrinsic physical hazard.

- Examples of hazards include flammability, corrosiveness and explosiveness.

Placard: means a sign or notice that is displayed or intended for display in a prominent place, or next to a container or storage area for classified chemicals at a workplace that contains information about the hazardous chemical stored in the container or storage area.

Personal Protective Equipment (PPE): all equipment which is intended to be worn or held by a person to protect them from exposure to hazards while at work (e.g. gloves, clothing, masks, goggles, etc).

Register: a list of classified chemicals within the workplace, with additional information such as Safety Data Sheet details.

Risk Assessment: documented assessment of the hazards relating to a chemical, including the use, storage, transport and disposal, as well as the likely consequences. A risk assessment must include consideration of controls and be completed within the last five years, or when any change occurs.

Safety Data Sheet (SDS): a document that provides information about a hazardous substance, and how it should be used and how to avoid harm when using it at the workplace. The properties and uses including: identity of the hazardous substance, chemical and physical properties, health hazard information, precautions of use, and safe handling information

Use: activities such as the storage, handling, transport, disposal or otherwise personal exposure to chemicals.

Roles and Responsibilities

Manager / Supervisor

- Relevant Managers and Supervisors are required to provide the following:
 - consult with OSH, NMHS Facilities Management and Infection Prevention & Control (if used for cleaning), before a chemical, hazardous substance or dangerous good is purchased and approved

- conduct a risk assessment on 'red' and 'amber' chemicals on the Stock Holdings list for your appropriate area
- complete the [CAHS Chemical Hazardous Substances Audit checklist](#) annually
- ensure Safe Work Procedures (SWP) are developed, implemented and adhered to for all hazardous chemicals and chemicals used for cleaning
- keeping records of the information and training provided
- ensure contractors comply with the SDS and PPE requirements
- ensure that staff education occurs at induction level and on a continuing basis as required:
 - Information from the relevant SDS must be used in training employees in the assessment of hazards and safe use of the substances.
- ensure that they obtain a permit / licence if one is required under legislation / Government policy for specific dangerous goods being used in their departments

CAHS Employees

- Staff who use chemicals, hazardous substances and dangerous goods have the following responsibilities:
 - use the chemical as per the SWP and use the appropriate PPE as indicated when using, decanting, transporting and / or storing
 - complying with any mandatory training requirements for the safe use of chemicals in the workplace
 - report any hazards or incidents
- All incidents involving chemicals, hazardous substances or dangerous goods must be reported in accordance with CAHS [Incident and Hazard Reporting](#) policy.

OSH Department

- The OSH Department is responsible for the following:
 - provide specialist advice and support to areas in relation to the management of chemicals on site including risk assessments, SWP's, PPE requirements and training
 - coordinate, administer and update [ChemAlert](#), inclusive of updating the Stock Holdings list
 - provide specialist advice and support on risk assessment of hazardous chemicals
 - assist managers and / or supervisors of the area to conduct a risk assessment on 'red' and 'amber' chemicals listed on [ChemAlert](#) on the Stock Holdings list
 - coordinate a three yearly CAHS external Chemical Audit

Contractors

- Contractors at CAHS are responsible for the following actions:

- complying with any reasonable instruction and cooperating with any reasonable policy or procedure relating to the use, handling and storage of hazardous chemicals and dangerous goods in the workplace
- reporting all hazards, incidents, injuries, dangerous occurrences and system failures which occur or have the potential to occur, to their site contact
 - Refer to the CAHS [Incident and Hazard Reporting](#) policy.
- notifying and obtaining approval from CAHS OSH and [North Metropolitan Health Service - Facilities Management](#) for any hazardous chemicals, dangerous goods and materials prior to these being brought on site and / or used and stored in the work areas
- ensuring that SDS are available and referred to at all times when working with chemicals and hazardous substances and dangerous goods

ChemAlert

- [ChemAlert](#) has a basic level of access, known as Anonymous, which is available to all CAHS workers providing basic read-only access to stock management, risk assessments and chemical requests, printing and exporting of stock reports.
- An additional level of access known as Credentialed User is used by the OSH Department for activities including creating and modifying risk assessments, stock management and modification, and printing functions.
- [ChemAlert](#) uses colour ratings to indicate the risk associated with a hazardous chemical. These ratings are a good indication of whether to seek additional safety information about the product:
 - **Green:** Low Health Hazard with normal use
 - **Amber:** Moderate Health Hazard with normal use
 - **Red:** High Health Hazard with normal use
- The colour rating can indicate products that are classified as dangerous goods, designated as hazardous chemicals, or indicate scheduled poisons and carcinogens.

Guideline: General Requirements

Classified Chemical Register & Safety Data Sheets (SDS)

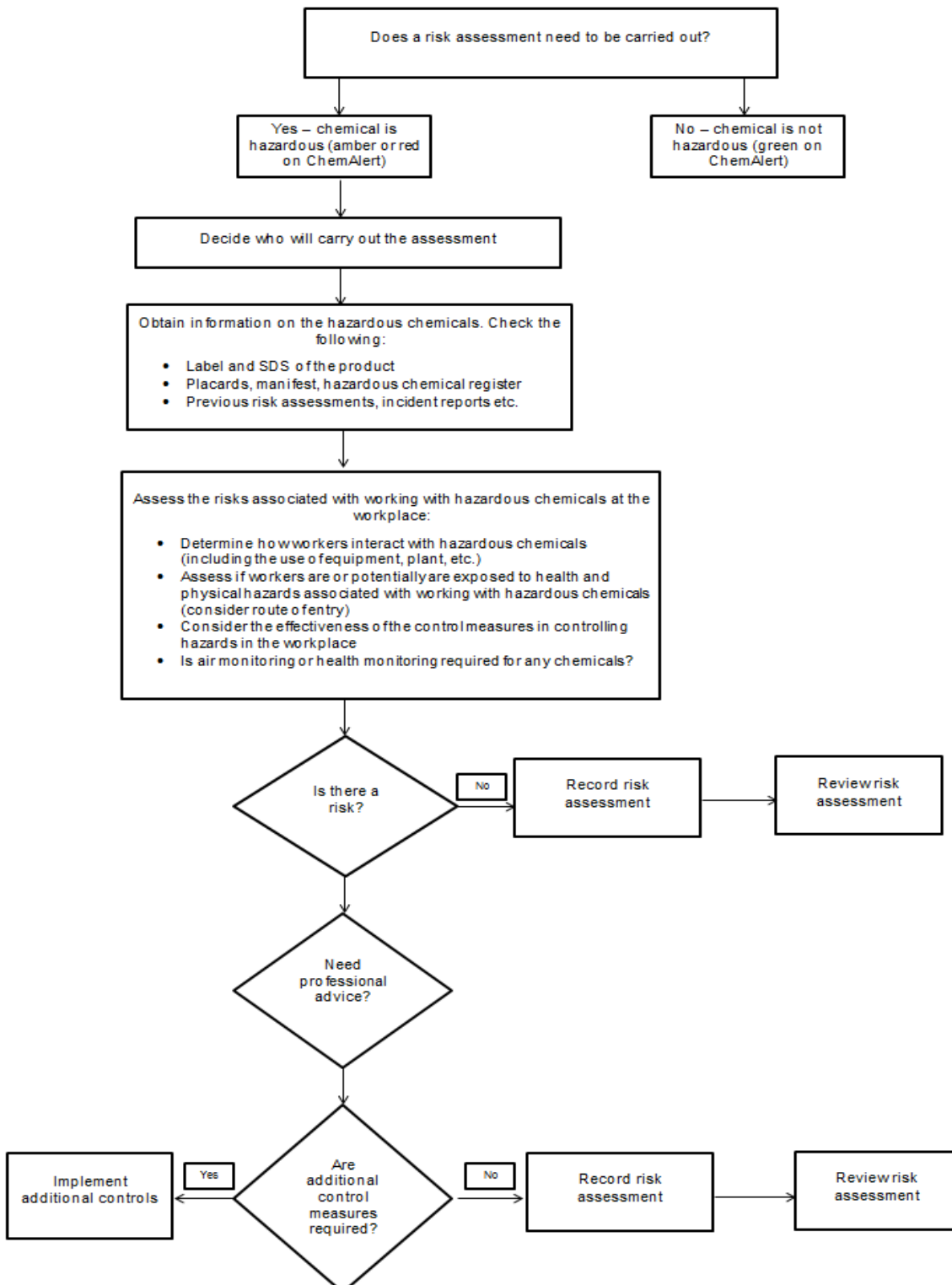
- Each workplace must maintain a chemical register which details any chemicals being used in that work area. [ChemAlert](#) is to be used to maintain these registers.
- The register (called Stock Holdings in ChemAlert) should be kept up to date including the addition of new chemicals when they arrive at the workplace and removal of chemicals that have been disposed.
- The completion of chemical risk assessments must be recorded in the register.
- A SDS for each hazardous substance must be readily available and accessible in the immediate vicinity of the chemical use at all times. If there are no computers in close proximity to the chemical, a paper copy must be available.

- The SDS must be from the supplier and contain Australian contact details.
- The SDS must be in English.
- The SDS must be valid and within date (within 5 years of manufacture). The SDS issue date will be written on the SDS.
- The SDS must be compliant with the GHS requirements, including pictograms, signal words, hazard and precautionary statements in each document.
 - Refer to [Appendix 3: GHS Pictograms \(Diamonds\)](#)
- A Stock Holdings Report is available within [ChemAlert](#), and can be accessed via the following steps:
 1. Click on the Stock module on the left side of the screen.
 2. Click on the Reports drop down arrow at the top right of the screen to display the reports menu.
 3. Choose the report to be generated.
 4. Select the Location(s) and relevant report parameters within the Reports screen.
 5. Click view / print to generate the stock report.
 6. Once the report is ready, click on the grey notification to download the report.
 7. Follow computer prompts to download view the report.

Risk Assessment, Management & Control

- Risk assessments must be completed for all tasks involving the use of hazardous chemicals (**amber** and **red**), using the risk module within the [ChemAlert](#) database.
- When assessing risks from chemicals, particular regard is to be given to:
 - the hazardous properties of the chemicals
 - any potential physical or chemical reactions between chemicals
 - the nature of the work
 - any structure, plant or system of work that is used, or could interact, with the chemicals
 - consultations with employees
- Risk controls should follow the hierarchy of control and be considered in the following order:
 - **Elimination** – Remove the need to use the chemical
 - **Substitute** – The chemical for a less hazardous one
 - **Isolation** – Isolate processes from workers or isolate incompatible chemicals from each other
 - **Engineering** – Install mechanical ventilation
 - **Administrative** – Signage, Safe Work Procedures, Training etc

- **PPE** – As indicated on the SDS, i.e. gloves, goggles, mask
- Risk assessments must be reviewed post incident, if there is an increase in the risk, or when it has been five years since the last assessment was completed.
 - Refer to the CAHS ChemAlert Instructions for further information on how to complete a Risk Assessment
- An overview of the process for the assessment of health risks arising from the use of hazardous chemicals in the workplace is provided below.



Source: <https://www.safeworkaustralia.gov.au/doc/model-code-practice-managing-risks-hazardous-chemicals-workplace>

Purchasing

- New chemicals can only be introduced to the workplace after approval of the Manager or Supervisor. Staff in the following departments must be consulted prior to introducing new chemicals into a department:
 - [North Metropolitan Health Service - Facilities Management](#)
 - CAHS [Occupational Safety and Health](#)
 - [Infection Prevention and Control Service](#) (for cleaning/ disinfection / sterilisation products or those relating to patient care)
 - Patient Support Services (PSS)
 - HSS (Stores)
 - Staff likely to use the classified chemicals
- Prior to first use, managers / supervisors must ensure that:
 - a chemical risk assessment has taken place
 - Refer to the [ChemAlert Risk Assessment Report](#) template.
 - Chemical storage is available, for maximum quantities required for use / delivery time frames
 - The chemical is entered into [ChemAlert](#) (if not on ChemAlert, contact CAHS OSH Department to have chemical added)
 - SDS is available in close proximity to chemical and valid (within 5 years of issue date)
 - Training is provided to all staff using the chemical
 - PPE (if required) is available and accessible to all staff
 - Suitable spill kit is readily available if required
 - Disposal methods of wastes/by products have been determined and approved, with relevant equipment available from first use
 - Operator manuals are available for equipment required

Transporting

- Transportation of chemicals must be included in the specific risk assessment, which must be approved by the line manager, with input from the OSH Department if required.
 - Specific information is available in Section 14 of the SDS
- Supervisor / Managers to be advised when chemicals are delivered to the site, so the chemical can be transported in accordance with the SDS.
- Dangerous goods / flammable stock must be secured on a trolley, which is specifically designed with compartments for each container.

- **PCH only:** Oxygen cylinders shall be secured and transported on a trolley in a safe manner
- **PCH only:** Patients requiring oxygen therapy during transfer within PCH shall have the oxygen cylinders secured on their beds / trolleys
- Under **no** circumstances may staff transfer **unsecured** containers on a trolley

Storage

- Storage area must have sufficient illumination for the tasks, adequate ventilation, including local exhaust ventilation, where applicable to be performed.
- All chemicals (liquid and gas) to be stored in accordance with the SDS and Hazard Class chemicals stored in containers in which they are supplied.
 - Refer to [Appendix 2: Dangerous Goods Storage Compatibility Guide](#).
- Incompatible chemicals shall be kept segregated from one another (e.g. flammable storage cupboard, secure rooms with access controls).
- The quantities of hazardous chemicals should be kept to a minimum, commensurate with their usage and shelf life.
- Packaging shall be inspected regularly to ensure their integrity with leaking or damaged containers are removed to a safe area for repacking or disposal.
- Access to site and work areas containing cytotoxic substances, hazardous substances and dangerous goods must be controlled and restricted to people having a legitimate purpose. The method of control is to suit the risk rating of the substances.
- Cylinders must be stored in purpose built brackets to protect from being knocked over. If not held in on all sides, a chain should be fitted to restrain.
- If any cylinders require segregation, this must be 3m between each class. Cylinders must be at least 5m from any dangerous goods storage (i.e. flammables) and 3m from combustible materials (i.e. vegetation).
 - Cylinders must be at least 3m from any artificial heat source
 - They are not to be stored in an area reaching greater than 45 degrees Celsius

Labelling

- The area where dangerous goods or hazardous substances are stored shall be clearly identified by approved signage.
- Hand-written labels are **not permitted**.
- All dangerous goods shall be classified in accordance with relevant statutory requirements.
- The label must clearly identify the dangerous good, its risks and safety information. Where manufacturer's labels are damaged or unreadable, they may be replaced with labels produced in [ChemAlert](#) if the content is known. If the content is

unknown, the chemical container and content must be disposed of as soon as practicable via a licenced waste contractor.

Decanting Chemicals

- Decanting chemicals is not recommended, and should be avoided whenever possible (including hand hygiene products).
- Approval should be sought from the OSH Department if bulk or repetitive decanting is required.
- If a chemical is decanted the container must be labelled to clearly identify the hazardous substance, its risks and safety information as per the SDS.
- When decanting is required, the risk assessment must include this process, including assessment of manual handling processes, any training required and PPE requirements.

Disposal

- All chemicals must be disposed in accordance with the chemical's SDS.
- Chemical waste must be labelled and segregated to ensure chemical reactions do not occur. Containers that are empty or contain only small or residual amounts of liquid are disposed of as chemical waste.
- Waste disposal procedures must be in accordance with regulatory requirements and the manufacturer's instructions.
 - Contact the local [North Metropolitan Health Service - Facilities Management](#) for advice on appropriate waste disposal of dangerous goods (including out of date goods)

Training and Supervision

- Before commencing work, employees who are likely to be exposed to a hazardous substance or dangerous good must receive information, instruction and training on:
 - risks of the chemical used in the workplace including potential health effects
 - use and location of the chemical database ([ChemAlert](#))
 - safe working procedures to be followed
 - PPE to be used, worn and maintained
 - Refer to the CAHS [Personal Protective Clothing and Equipment \(PPE\) Management policy](#).
 - how to source information from the SDS
 - the significance of labels
 - dangerous goods awareness including information on compatibility and packaging guidelines for storage and transport
 - emergency procedures for minor and major incidents including spill kit use for minor spill clean- up

- Refer to [PCH Emergency Procedures Manual – Code Yellow, CACH Emergency Procedures Manual – Code Yellow](#) or [CAMHS Emergency Procedures Manual – Code Yellow](#)
- o the process for reporting incidents
 - Refer to the CAHS [Incident and Hazard Reporting](#) policy.
- It is the manager’s responsibility to maintain a record of this training for at least 30 years. The record must include date, person trained, trainer, content of training provided including chemical or equipment trained in and reference to issue date of reference material (e.g. SDS issue date).
- If there is a change in details (e.g. chemical classification changes or PPE type changes significantly), training must be updated.

Cytotoxic Drugs

- All cytotoxic drugs are considered Scheduled Carcinogens under the [WA Occupational Safety and Health Regulations 1996](#) (Division 3), therefore, as well as complying with the rest of this policy, there are certain requirements for the use of cytotoxic drugs including reporting all spills or possible exposures to Worksafe.
- All cytotoxic agents are considered high risk medications.
 - o All preparations of cytotoxic agents (including oral preparations) must be clearly identified as cytotoxic to all staff that may handle the medication
- Manager / Supervisor in areas using cytotoxic drugs must ensure all spills; possible exposures or hazards are reported to the OSH Department and Emergency Management Unit in accordance with the CAHS [Incident Hazard Reporting](#) policy.
 - o Refer to the PCH [Cytotoxic and/or Biotherapy Agents Safety](#) policy.
- Cytotoxic Drug Spill Kits will need to be stored in the area where cytotoxic chemicals are used and during transportation between areas on site.
 - o The spill kit contents will vary depending on type, volume and any other relevant factors. For further information on spill kit requirements, contact the [Emergency Management Unit](#)
- New cytotoxic drugs to CAHS need to be approved for use by the WorkSafe Commissioner.
 - o Contact CAHS OSH to determine the requirements within the risk assessment that need to be completed prior to presenting this
- All cytotoxic drugs are labelled ‘cytotoxic’ and secondary packaging labels will have a purple background and a white late telophase symbol. The warning ‘**cytotoxic – handle with care**’ will be prominent.



Hand hygiene requirements for Cytotoxics

- Neutral soap and water is the most effective hand hygiene technique after handling cytotoxics or handling / administering to patients.

- Alcohol based cleaners are not recommended as the cytotoxic chemical can bind to the alcohol and spread.

Audits

- A CAHS Chemical Hazardous Substances Audit is completed annually for each work area; the Manager is responsible for any audits.
 - Refer to [Appendix 1: Chemical Hazardous Substances Audit Checklist](#).
- It is recommended to complete this annually during a Workplace Hazard Inspection (WHI), by comparing current stock, to the stock holdings list on [ChemAlert](#).
- If there are any 'red or amber' listed chemicals on the Stock Holdings, a risk assessment **must** be completed. The risk assessment is valid for 5 years from completion date, unless the product changes.

Related internal policies, procedures and guidelines
Chemical, Hazardous Substances and Dangerous Goods Management policy (CAHS Policy Manual)
Incident and Hazard Reporting (CAHS Policy Manual)
Emergency Management (CAHS Policy Manual)
Risk Management (CAHS Policy Manual)
Waste Management (CAHS Policy Manual)
Personal Protective Clothing and Equipment (PPE) Management (CAHS Policy Manual)
Contractor Safety (Community Health Operational Policy Manual)
PCH Emergency Procedures Manual – Code Yellow
CACH Emergency Procedures Manual – Code Yellow
CAMHS Emergency Procedures Manual – Code Yellow
NMHS Dangerous Goods Policy
Cytotoxic and/or Biotherapy Agents Safety (PCH Medication Management Manual)
References and external legislation, policies, procedures and guidelines
Occupational Safety and Health Act 1984
Occupational Safety and Health Regulations 1996
AS/NZS 4360: 2004 Risk Management (Access via https://www-saiglobalcom.pklibresources.health.wa.gov.au/online/)
Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008 (2004) 3rd Edition


(Safe Work Australia)
National Code of Practice for the Storage and Handling of Workplace Dangerous Goods [NOHSC: 2017 (2001)] (Safe Work Australia)
Dangerous Goods Safety Act 2004 (Western Australian Legislation)
Dangerous Goods Safety (General) Regulations 2007 (Western Australian Legislation)
Medicines and Poisons Act 2014 (Western Australian Legislation)
Medicines and Poisons Regulations 2016 (Western Australian Legislation)
Environmental Protection Act 1986 (Western Australian Legislation)

Useful resources (including forms)
CAHS OSH Hazard Incident Form
ChemAlert Risk Assessment Report
Spill Kit Information (PCH Emergency Management Spills Kits HealthPoint page)
ChemAlert
NMHS – Facilities Management
Safe Work Australia
Dangerous Goods Storage Compatibility Guide (ChemAlert)
Occupational Safety and Health (CAHS OSH HealthPoint InfoHub)
Infection Prevention and Control Service (CAHS IP&C HealthPoint Hub)
Patient Support Services (PCH PSS HealthPoint InfoHub)

This document can be made available in alternative formats on request for a person with a disability.

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Standards Applicable:

NSQHS Standards: 


NSMHS: 2, 8

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Appendix 1: CAHS Chemical Hazardous Substances Audit Checklist

To be completed by Manager and elected OSH Rep and forwarded to CAHS OSH.

Date completed:		Area / Department / Ward Location of Stored Chemicals	
Manager / Supervisor Name		Signature / He Number	
OSH Representative Name:		Signature / He Number	

Checklist	Yes	No	Issues / Comments
<p>Confirm the chemicals list on the ChemAlert PCH tree for your area is correct. List any chemicals that are not on the list and should be in stock and any chemicals that are no longer used and should be removed from stock (attach list).</p> <p><i>(Instructions: click on the link below, then click on Anonymous User, click on Stock, click on Holdings, click on the down arrow for CAHS – Perth Children’s Hospital, then search by your work level / area)</i></p> <p>https://chemicalert.rmt.com.au/nmahs/</p>	<input type="checkbox"/>	<input type="checkbox"/>	
Are Safety Data Sheet (SDS) available and current for all listed chemicals? (SDS must be within 5 years)	<input type="checkbox"/>	<input type="checkbox"/>	
Are all chemicals within their expiry dates? If no, please dispose of in accordance with the SDS.	<input type="checkbox"/>	<input type="checkbox"/>	
<p>Are all red rated hazardous chemicals on ChemAlert been risk assessed using the ChemAlert Risk Assessment Template and reviewed for possible substitution?</p> <p> Product_Risk_Assessment_Template (2).pdf</p>	<input type="checkbox"/>	<input type="checkbox"/>	
Are chemicals stored in accordance with the SDS (i.e. Chemicals segregated as required, use of bunding, Australian Standard approved cabinets	<input type="checkbox"/>	<input type="checkbox"/>	

used to store dangerous goods etc.) (below is a link to <i>Dangerous Goods Storage Compatibility Guide</i>) Dangerous Goods Storage Compatibility Guide			
Are chemical safety signs displayed in accordance with SDS? (Hand written signs are not permitted)	<input type="checkbox"/>	<input type="checkbox"/>	
Are chemicals labelled in accordance with SDS?	<input type="checkbox"/>	<input type="checkbox"/>	
Are chemicals decanted in accordance with SDS? (Decanting of chemicals is strongly discouraged)	<input type="checkbox"/>	<input type="checkbox"/>	
Are training / instructions provided to staff on the correct use and maintenance of PPE?	<input type="checkbox"/>	<input type="checkbox"/>	
Have staff received appropriate training to handle chemicals in accordance with the SDS requirements?	<input type="checkbox"/>	<input type="checkbox"/>	
Is there a spill kit readily available and located adjacent to the area where the chemical(s) are used?	<input type="checkbox"/>	<input type="checkbox"/>	
Are chemicals disposed of in accordance with SDS recommendations?	<input type="checkbox"/>	<input type="checkbox"/>	

Action Plan:

Please complete the below table.

Control Measures to be implemented – use Hierarchy of Controls (Elimination, Substitution, Isolation, Engineering, Administrative, PPE)

Corrective Action Required (immediate & future)	By Whom	By When

Appendix 2: Separation / Segregation Table ChemAlert

The following tables list the requirements (under AS/NZS 3833:2007) for the separation of, and segregation within, stores containing more than one class of dangerous goods, in quantities exceeding those given for minor storage. These requirements do not apply to minor storage or retail storage.

Dangerous Goods classes not covered in this guide are subject to different standards.

Note: Generally, Explosives and Radioactive Substances are incompatible with everything.

		Class	2	3	4	5	6	8				
COMPRESSED GASES	2.1 Flammable		C	KA	S	S	S	S	S	I	KA	KA
	2.2 Non-flammable /Non-toxic		KA	C	KA	SM	S	SM	SM	S	SM	KA
FLAMMABLE LIQUIDS	and Combustible Liquids		S	KA	C	KA	S	S	S	I	KA	KA
FLAMMABLE SOLIDS	4.1 Flammable Solids		S	SM	KA	C	KA	S	S	S	KA	SM
	4.2 Spontaneously Combustible		S	S	S	KA	C	KA	S	I	KA	KA
	4.3 Dangerous When Wet		S	SM	S	S	KA	C	KA	S	SM	SM
OXIDISING SUBSTANCES	5.1 Oxidising Agents		S	SM	S	S	S	KA	!	S	KA	KA
	5.2 Organic Peroxides		I	S	I	S	I	S	S	C	KA	KA
TOXIC SUBSTANCES			KA	SM	KA	KA	KA	SM	KA	KA	C	SM
CORROSIVE SUBSTANCES			KA	KA	KA	SM	KA	SM	KA	KA	SM	!

DEDICATED COMPRESSED GAS STORE UNDER AS 4332:2004

Class / Sub-risk	2.1	2.2	2.2 / 5.1	2.3 or 2.3/8
2.1	C	C	KA	KA
2.2	C	C	C	C
2.2 / 5.1	KA	C	C	KA
2.3 or 2.3/8	KA	C	KA	C

MAXIMUM MINOR STORAGE QUANTITIES

Description	Quantity (kg or L)			
	PG I	PG II	PG III	Combustible Liquids
Total quantity of all dangerous goods	25	250	1000	1500

LEGEND

C	SHOULD BE COMPATIBLE. Consult the SDS or supplier about requirements for individual substances.	S	SHOULD BE SEGREGATED by at least 5m and kept in separate compounds or building compartments.	SM	SEGREGATION MAY BE NECESSARY. Consult the SDS or supplier.
!	COULD BE INCOMPATIBLE or react dangerously. Consult the SDS or supplier about requirements for individual substances.	I	ISOLATION REQUIRED. Dedicated stores or storage cabinets are recommended. Adequate separation from other buildings and boundaries is required.	KA	SHOULD BE KEPT APART by at least 5m. Consult the SDS or supplier.



Appendix 3: GHS Pictograms (Diamonds)

There are nine hazard pictograms in the GHS that represent the physical, health and environmental hazards of chemicals.



GHS01 – Exploding bomb

Explosion, blast or projection hazard.



GHS02 – Flame

Flammable liquids, solids and gases; including self-heating and self-igniting substances.



GHS03 – Flame over circle

Oxidising liquids, solids and gases, may cause or intensify fire.



GHS04 – Gas cylinder

Gases under pressure.



GHS05 – Skull and crossbones

Fatal or toxic if swallowed, inhaled or in contact with skin.



GHS06 – Exclamation mark

Low level toxicity. This includes respiratory, skin, and eye irritation, skin sensitisers and chemicals harmful if swallowed, inhaled or in contact with skin.



GHS07 – Corrosion

Corrosive chemicals, may cause severe skin and eye damage and may be corrosive to metals.



GHS08 – Health Hazard

Chronic health hazards; this includes aspiratory and respiratory hazards, carcinogenicity, mutagenicity and reproductive toxicity.


















GHS09 – Environment

Hazardous to aquatic life and the environment.

Source: <https://www.safeworkaustralia.gov.au/classifying-chemicals>

Appendix 4: Dangerous Goods Diamonds

There are fifteen (15) diamonds in the Australian Dangerous Goods Code that represent the hazards of chemicals. Below are these diamonds with their Primary Hazards listed.

 <p>Class 1 Explosive</p>	 <p>Division 2.1 Flammable Gas</p>	 <p>Division 2.2 Compressed Gas (Asphyxiant, Cryogenic)</p>	 <p>Division 2.3 Toxic Gas</p>	 <p>Class 3 Flammability</p>
 <p>Division 4.1 Flammability</p>	 <p>Division 4.2 Spontaneous Combustion</p>	 <p>Division 4.3 Flammability if Wet (toxic gases possible)</p>	 <p>Division 5.1 Oxidising – oxygen source</p>	 <p>Division 5.2 Organic Peroxide</p>
 <p>Division 6.1 Toxicity</p>	 <p>Division 6.2 Infectious</p>	 <p>Class 7 Radioactivity</p>	 <p>Class 8 Corrosive</p>	 <p>Class 9 Miscellaneous</p>

Source: http://www.dmp.wa.gov.au/Documents/Dangerous-Goods/DGS_T_TransportHazardOverview.docx