Health and Safety Chemical Management Guidelines



SCOPE

This document provides guidance on how to navigate the Health and Safety Chemical Management Flow document at Curtin University which details how to procure, receive, store, maintain and dispose of chemicals. It applies to all workers and students responsible for ordering, using and/or managing chemicals or related activities across all university sites and is supported by the Chemical Management Plan.

PROCUREMENT OF CHEMICALS

1. CHECK

- 1.1 Check the <u>ChemAlert</u> inventory for existing supplies. Stock manager administrative permissions are required to access inventories for local areas. See <u>ChemAlert resources</u>, <u>guides</u>, <u>and training</u>.
- 1.2 Review the Safety Data Sheet (SDS) and relevant reference materials, and use <u>Hierarchy of controls</u> to minimise risk: use non/less-hazardous alternatives to hazardous products where possible and minimum quantities.
- 1.3 Curtin prefers Australian suppliers as they are legislatively required to provide a compliant SDS and product labelling for hazardous chemicals. When selecting products, preference should be given to those with SDS already in the ChemAlert database, if possible. Refer to Section 8.2 of the Chemical Management Plan.

 Note Gifting of chemicals is not permitted. Refer to Section 8.3.1 of the Chemical Management Plan.

2. PLAN

- 2.1 Complete a <u>Chemical Pre-purchase Checklist</u>: the chemical user's line manager/supervisor is responsible for the approval and endorsement of the checklist. The completed checklist must also be approved by the local area manager. Records must be stored by the Faculty/local area. Refer to the <u>Pre-purchase Risk Identification</u> <u>Guide</u>. Completion of the checklist is NOT permission to purchase.
- 2.2 Obtain appropriate approvals, licenses and permits as identified in the <u>Chemical Pre-purchase Checklist</u>. Provide purchase authority for controlled/regulated substances e.g., poisons. An acknowledgement signature is required from the line manager/supervisor.
- 2.3 Calculate the minimum quantity of product that will be fully utilised within 12 months: larger quantities pose unnecessary storage and handling hazards. <u>Time-Sensitive Chemicals</u> can develop additional hazards.
- 2.4 Consider where the product will be stored (e.g., availability of controlled environment, segregation). Storage of waste produced during usage must be considered at this point, along with all product/waste disposal costs.

3. REVIEW

- 3.1 Obtain and review the <u>Australian compliant SDS</u> for the chemical. Manufacturers/importers of <u>hazardous</u> <u>chemicals</u> are required to provide an Australian compliant SDS on request. <u>Healthandsafety@curtin.edu.au</u> can organise authoring compliant SDS as required (a fee is applicable, payable by the purchaser).
- 3.2 Ensure the Australian compliant SDS is uploaded to ChemAlert and is on local chemical registers before the product arrives on site. Contact healthandsafety@curtin.edu.au for assistance.
- 3.3 International imports need to be categorised before importing under the <u>Australian Industrial Chemicals</u>
 <u>Introduction Scheme (AICIS)</u>. This may require AICIS approval before import is permitted. Records of all imports must be kept by the local area and provided to Health and Safety when requested. Imports may also incur import/custom duties, payable by the purchaser. Contact healthandsafety@curtin.edu.au for advice.

4. ASSESS RISK

4.1 Complete a task based chemical risk assessment. This task based chemical risk assessment must be conducted by the person working with the chemical and assessed by a competent person before endorsement/approval by the line manager/supervisor of the worker. This risk assessment must include details of the planned use, not just the inherent hazards of the chemical. The competent person assessing the risk assessment must have expertise in the subject matter and may also be the line manager/supervisor.

- If the chemical is new to Curtin and/or the worker, the procedure is novel (using the chemical in new task/procedure) or the risk rating is high or extreme, a CHARM risk assessment is required via OASIS (students) or via the staff portal (staff). Refer to CHARM Risk Assessment Guide and the Chemical Management Plan.
- 4.2 A safe work procedure (SWP) is developed by the person undertaking the task, based on the risk assessment. Their manager/supervisor endorses the SWP after assessing the person's specific chemical handling training/competency.
- 4.3 All identified effective controls must be in place before proceeding (refer to <u>SDS guidelines</u>). <u>AnselIGUARDIAN® Chemical</u> contains a Personal Protective Equipment (PPE) selection tool with a searchable permeation and degradation database (glove suitability/thickness). Some chemicals require access to emergency eyewash/shower, ventilation systems (e.g., fume hood) and Dangerous Goods (DG) cabinets for storage. Users must receive training in their use and be assessed as competent, prior to ordering the chemical.

5. ORDER

- 5.1 Order the minimum quantity of the chemical as assessed in section 2.3.
- 5.2 State a suitable receivals location: DG chemicals require a staffed location (signature on delivery) with restricted access. Some chemicals require controlled environments. Purchaser name must be noted on the order.
- 5.3 Raise a purchase order through <u>CiAnywhere</u> using the Science Warehouse online catalogue (Curtin negotiated pricing). Email <u>ciahelpdesk@curtin.edu.au</u> to request access. **Corporate credit cards shall not be used to purchase chemicals.** Refer to <u>Purchasing Procedures</u> section 2.2.2 for further details.

RECEIVALS, STORAGE AND MAINTENANCE OF CHEMICALS

6. RECEIVALS

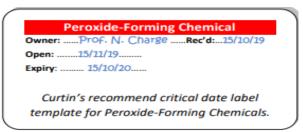
- 6.1 The product will be delivered to the location as per Section 5.2. A signature is required for all DG deliveries.
- 6.2 The chemical will be stored in the receivals location in an appropriate controlled environment until collected. Access to this area should be restricted. The purchaser should be alerted by email to allow timely collection.

7. LABELLING

- 7.1 A unique <u>ChemAlert</u> barcode must be affixed to the label of each product to allow for individual container tracking. A guide detailing this process can be found on Curtin's <u>chemical safety</u> pages and in the <u>Chemical Barcoding Hardware Guide</u>.
- 7.2 Mark the product label with the owner's name (PI/supervisor) and date received. Time sensitive chemicals require specific labelling, as detailed in the Management of Time Sensitive Chemicals Guidelines.

Time sensitive chemicals:

Each container of Peroxide-Forming Chemical (including decanted containers) requires individual container tracking: entry on ChemAlert with expiry dates and labelling with a container-specific barcode.



Avoid covering up other elements of the label on the container (e.g., product name, safety information)

8. STORAGE AND MAINTENANCE

- 8.1 Check the product <u>SDS</u> to ensure the final storage location is appropriate for the properties of the product as stated in sections: 2 (GHS diamonds), 7 (Handling and Storage Details), and 14 (DG classification). Segregation and storage incompatibilities must also be considered.
- 8.2 Sections 9 and 10 on the <u>SDS</u> contain information regarding the characteristics of the product and its stability and reactivity (e.g., appearance, odour, explosive properties). This indicates the frequency and specifics for maintenance checks.
- 8.3 Regularly check products for deviation from the SDS characteristics, and product containers for degradation.

9. CHEMALERT

9.1 Enter the product details to the area <u>ChemAlert</u> inventory against the specific product code and SDS. Include: allocated <u>barcode</u>, the final storage location, PI details as owner, and any <u>time sensitive disposal information</u>. Curtin's requirement is to inventory all chemicals used in a work capacity (hazardous and non-hazardous). Product hazard classification can vary according to concentration, between manufacturers, and products can be reclassified.

ChemAlert read/write administrative access is required to edit the inventory. Refer to the ChemAlert resources and training information on the <u>Chemical Safety</u> pages. Access must be approved by the user's line manager/supervisor/facility manager following completion of the ChemAlert training and is requested by emailing <u>healthandsafety@curtin.edu.au</u>.

All Curtin students and staff have read-only ChemAlert access via an anonymous log in, enabling SDS viewing, associated product information, and to print labels.

Each area must maintain a register of all their hazardous materials. As a minimum, this must contain a list of each hazardous substance, storage locations and Australian compliant SDSs (Chemical Register and Manifests).

10. EDIT

- 10.1 <u>ChemAlert</u> inventory details must be updated whenever there are any changes in storage location, owner details and/or quantities. Regular audits are required to maintain the <u>chemical register</u> in accordance with the <u>Chemical Management Plan</u>.
- 10.2 Quantities stated in area inventories must reflect full containers amounts.

DISPOSAL OF CHEMICALS

11. CHECK

- 11.1 Curtin coordinates a licensed contractor to collect chemical waste from all sites several times per year at a cost to each area. Notification of the waste collection process is sent to all staff via Curtin Weekly prior to the pick-up dates. Refer to Curtin's chemical waste management pages.
- 11.2 Ad hoc collections are available at an additional cost and can be arranged as required by contacting the Health and Safety Hazardous Materials team via hazardousmaterials@curtin.edu.au.
- 11.3 Instructions and disposal manifests are emailed to the ChemAlert administrators prior to quarterly collections.

12. REVIEW

- 12.1 Each quarter, the ChemAlert administrators will engage with local area managers, laboratory/facility managers, chemical users, and supervisors, to communicate the disposal deadlines, details and share the manifest.
- 12.2 All chemical users must check their complete inventories and chemical containers to identify disposal items.
- 12.3 Gather for disposal: legacy chemicals, superfluous products, degraded or unstable products, empty contaminated containers requiring licensed disposal (check SDS), and waste from procedures or experiments requiring licensed disposal.

A time sensitive chemical report will be generated by Health and Safety each quarter, prior to the disposal deadlines, and shared with area ChemAlert administrators. These chemicals shall be assessed according to the <u>Management of Time Sensitive Chemicals Guidelines</u>. All chemicals due to expire in the quarter must be disposed of in that quarter.

13. PREPARE

- 13.1 Refer to the <u>Managing Chemical Waste</u> guidelines for waste preparation guidance. Chemicals designated for disposal require labelling according to the requirements stated in the <u>Chemical Management Plan</u>:
 - "CHEMICAL WASTE FOR DISPOSAL"
 - UN and packing group
 - GHS diamonds
 - manifest item number
 - waste composition
 - contact name
 - date of filling

Note: Product shipping name, UN number, packing group and DG classification can be identified using the ChemAlert 'Transport' tab of the product, and is also stated in Section 14 of the SDS.

- 13.2 The outside of containers must be decontaminated, clean of spills and the container fit for purpose (original packaging is preferred). Check the SDS for any container material incompatibilities and repackage if necessary.
- 13.3 Complete the <u>disposal manifest</u> and ensure the manifest item numbers match the label numbers. Include the contact details of a suitable staff member who will be readily contactable on the scheduled collection date. Email the manifest to <u>HazardousMaterials@curtin.edu.au</u> by COB two weeks prior to the disposal date.

14. STORE

- 14.1 The containers for disposal must be intact and sealed. Suitable secondary packaging can be used if necessary.
- 14.2 Containers must be bunded appropriately and segregated according to the product DG classification.
- 14.3 Disposal items shall be stored in a ventilated location, segregated by DG, with restricted access until the scheduled collection date. The schedule for disposals will be sent to the administrator prior to collection. Ensure the items are available for collection on the scheduled date and the designated contact is available.

15. UPDATE

15.1 When the disposal items have been collected by the waste disposal company, ensure the area inventory and stock register are updated on ChemAlert to reflect the disposed items.

When any products (including non-hazardous) are used up and the containers disposed of in the appropriate waste stream (including non-licensed disposal), the products must also be removed from the inventory to ensure the <u>chemical register</u> is accurately maintained in accordance with the <u>Chemical Management Plan</u>.

RESPONSIBILITIES

All levels of workers at Curtin University have responsibilities in relation to Health and Safety risk assessment. Specific responsibilities relating to chemicals are outlined in Table 1, Section 1.5 of the Chemical Management Plan.

Owners/users of the ordered chemical will comply with the Chemical Management Plan and accept responsibility for the material from its receipt until proper disposal or complete usage.

Line managers/supervisor are responsible for the endorsement and approval of chemical risk assessments and prepurchase checklists, subsequent to the assessment by a competent person (this can also be line manager/supervisor). They are also responsible for ensuring the chemical user is trained and competent to perform the task.

Heads of Schools/Areas are responsible for ensuring that chemicals are acquired in minimum quantities that mitigate and reduce waste, and that a sufficient waste management process is in place for their area.

RELEVANT DOCUMENTS/LINKS

AnsellGUARDIAN® Chemical (searchable PPE vs chemical tool)

Australian Industrial Chemicals Introduction Scheme (AICIS)

CHARM Risk Assessment Guide

ChemAlert

Chemical Management Plan

Chemical Pre-purchase Checklist

CiAnywhere – via the <u>Staff Portal</u> scroll bar

Hazardous materials and equipment - Pre-Acquisition Guide

Health and Safety Hazardous Materials website

Health and Safety Responsibilities Procedures

Management of Time Sensitive Chemicals Guideline

Managing Chemical Waste Guidelines

Pre-purchase Risk Identification Guide

Purchasing Procedures

Safe Work Australia website

CONTACT DETAILS		
Contact	Health and Safety, Phone: (08) 9266 4900 healthandsafety@curtin.edu.au, hazardousmaterials@curtin.edu.au	
Approval Authority	Director, Health and Safety	
VERSION HISTORY		
Revision #	Date	Amendment Description
1	11/12/2023	New document
2	10/1/2024	Reviewed and edited
3	27/2/2024	Further review