

Chapter 40: [Chemical Lifecycle Management](#)

Purchasing Procedures

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URL: <https://www-group.slac.stanford.edu/esh/eshmanual/references/chemmanageProcedPurchase.pdf>

1 Purpose

The purpose of these procedures is to ensure that all purchases of *chemicals* and other *hazardous materials* are placed and tracked centrally and that new chemicals are screened against established criteria to support their safe management and use. They cover ordering, delivery, and receipt of chemicals. They apply to workers (as *chemical users*, *requesters*, and *receivers*), their supervisors and line management, ESH coordinators, *chemical reviewers*, and the chemical lifecycle management program manager.

2 Procedures

2.1 Overview

SLAC utilizes the chemical management services supply chain model for chemical management. All chemical purchases must be initiated and fulfilled through the [Chemical Management System](#). This greatly enhances SLAC's ability to comply with hazard communication, inventory, and usage reporting obligations. No other means of acquiring chemicals for on-site use is permitted without prior management approval and program review.

Chemicals are approved for specific *work areas*, based on use and amount. To ensure this, ESH coordinators, and ESH program managers as appropriate, are notified of all new purchase requests made through the system.

2.2 Chemical Management System Access

To access the [Chemical Management System](#) employees or approved users must have a SLAC user ID and password. For access contact the chemical lifecycle management program manager or ERP support. (See [Chemical Management Services \(CMS\)](#) for contact information and a list of chemical requesters, that is, personnel with current ordering privileges.)

2.3 Ordering from the System

Step	Person	Action
1.	Chemical user	Identifies the responsible requester by doing one of the following: <ul style="list-style-type: none">Verifies access to the Chemical Management System

Step	Person	Action
		<ul style="list-style-type: none">▪ Checks the list of CMS Requester List or▪ Contacts the chemical coordinator
2.	Authorized CMS requester	Places chemical order through Chemical Management System The requesting process results in an e-mail notification to the financial approver, work area ESH coordinator, and in some cases, ESH program managers
3.	ESH coordinator	Reviews request based on knowledge work the area and consults ESH program managers if appropriate
4.	ESH program manager/chemical reviewer	Reviews request if appropriate (see Chemical Lifecycle Management: Chemical Screening Requirements)
5.	Financial approver	Approves the order if it is reasonable, within the approved financial limits, and is using the correct account number. Shipment does not occur until the order is approved. Financial approval is approval of the invoice. No further approval will be required except in the case when the supplier list price was not representative of actual cost.

2.4 Specific Acquisition Requirements

2.4.1 Special Hazard Chemicals

If a chemical being purchased from the system poses special hazards (for example, highly toxic, carcinogenic, highly flammable, reactive), further review may be required. This review will verify the intended use of the chemical includes the necessary considerations and controls to ensure it can be stored, used, and disposed of safely. If the safety and/or environmental issues cannot be resolved, acquisition of the chemical is denied until appropriate controls are determined. (See [Chemical Lifecycle Management: Chemical Screening Requirements](#).)

Initially rejected chemical products that are highly toxic or could be replaced with safer, environmentally preferred products may be acquired only if they can be justified as mission critical with the implementation of appropriate safety control. Justification requires approval from the work area ESH coordinator and line management (and is documented using the [Chemical Lifecycle Management: Toxic and Hazardous Chemical Justification Form](#)).

2.4.2 Compressed Gas Cylinders

Returnable *compressed gas cylinders (CGCs)* must be used if available. If the product needed comes only in non-returnable or disposable cylinders, arrangements must be made for its final disposal as a condition of its purchase.

2.4.3 DEA Listed Materials or Precursors

The Drug Enforcement Administration (DEA) requires that any listed drug or precursor be highly controlled. The use of any DEA-listed material must follow the requirements of Stanford University's [Controlled Substances and Precursor Chemicals Program](#). Listed precursors typically used in a laboratory

(iodine, for example) can however still be purchased through the [Chemical Management System](#), provided additional controls are in place, such as secure and limited access and use and rigorous inventory control.

2.4.4 Ethanol (190 to 200 proof)

Ethanol is purchased through the [Chemical Management System](#), but additional controls are required. It must be managed and physically controlled, from receipt to point of use, to prevent improper or illegal use and controls must include supervisory approval for issue and storage in locked repositories. Total quantities of one quart or more must be controlled as potable alcohol.

2.5 Delivery and Receipt

Chemical containers shipped to SLAC will be inspected and bar-coded before arrival on site. Chemicals, other than bulk gas or cylinders, directly shipped to SLAC from the manufacturing location and ethanol deliveries will be inspected upon delivery and bar-coded by the chemical coordinator.

Chemical receivers are responsible for inspecting the delivery for accuracy and container integrity before signing the shipping manifest. Shipments containing the wrong material or quantities need to be flagged for return or refund. Damaged containers should not be accepted. Highly toxic materials and those with inhalation hazards must be placed in a secure area immediately.

The following additional requirements apply to compressed gas deliveries:

- Chemical receivers must confirm proper labeling and inspect for damage and unsafe conditions at the point of delivery. If any cylinder is found to be improperly labeled, leaking, or damaged at the time of delivery, delivery must be refused.

Note Subcontractors are responsible for ensuring that CGCs they bring on-site meet the equivalent safety precaution achieved by a point-of-delivery inspection.

3 Forms

The following forms and systems are required by these procedures:

- [Chemical Lifecycle Management: Toxic and Hazardous Chemical Justification Form](#) (SLAC-I-730-0A09J-006). Form for documenting line management approval of a request to purchase chemical products that are highly toxic or could be replaced with safer, environmentally preferred products as mission critical, with the implementation of appropriate safety control
- [Chemical Management System](#). System used for ordering and tracking chemicals and storing safety data sheets

4 Recordkeeping

The following recordkeeping requirements apply for these procedures:

- Purchase requests, inventories, and safety data sheets are maintained in the [Chemical Management System](#).

5 References

[SLAC Environment, Safety, and Health Manual](#) (SLAC-I-720-0A29Z-001)

- [Chapter 40, “Chemical Lifecycle Management”](#)
 - [Chemical Lifecycle Management: Planning Requirements](#) (SLAC-I-730-0A09S-039)
 - [Chemical Lifecycle Management: Chemical Screening Requirements](#) (SLAC-I-730-0A09S-033)
 - [Chemical Management Services \(CMS\)](#)
 - [Chemical Management Services Program Site](#) (SharePoint)
 - [CMS Requester List](#)

Other Documents

- Stanford University, Office of Environmental Health and Safety. [Stanford University Controlled Substances Program](#)