

Chemical Procurement SOP

SCOPE/PURPOSE:

Scope: Biology and Chemistry departments

Purpose: Chemical procurement is the key to keeping track of what chemicals are stored in a building and making sure that the appropriate safety precautions are in place and information is on hand. It is vital that a chemical user have complete and accurate information about a chemical in order for them to choose appropriate safety measures.

DEFINITIONS:

For the purpose of this SOP a 'chemical' is defined as a substance that OSHA defines as hazardous and that requires hazard communication in the form of a Safety Data Sheet. In general, this does not include things such as enzymes, nucleic acids and other non-hazardous biological reagents. Of particular concern are chemicals that are hazardous because they are classified as being a physical hazard, health hazard, simple asphyxiant, combustible dust, pyrophoric, or other 'hazard not otherwise specified' according to the Globally Harmonized System of hazard classification.

PROCESS:

There are two main reasons why a chemical might need to be ordered: for teaching labs or for research. Each has a distinct process governed by the individual department addressing such issues as cost and academic need. Ordering decisions are usually made by the purchasing department's chair or designee and are not within the scope of this SOP but are mentioned below. Approval from a department chair does not negate the requirements of this program and compliance with this program does not imply departmental approval. It is the responsibility of the requester to obtain all necessary authorizations prior to chemical purchase.

The focus of this SOP is whether or not the chemical is new to Whitworth or is replenishing stock, regardless of whether it is needed for a laboratory course or research. A summary of these processes is given in the chart below.

In general, departments are free to purchase and restock chemicals as they see fit as long as all storage and compatibility requirements are met. (See the Chemical Compatibility and Storage SOP for more information.) The CHO must be notified of the purchase of all 'new' chemicals (those that are not currently in inventory). Certain types of "new" chemicals (those that are especially hazardous and or require specialized waste disposal), require authorization from the CHO **prior** to purchase, for all other chemicals, notification must be made within 2 working days of purchase. See below for the types of items that require prior approval and the rationale. If unsure, please consult with the CHO. This is not meant as an arbitrary means to deny purchase, but rather as a precaution to ensure that the chemical user has all of the necessary safety information prior to the use of a new chemical. When notified, the

CHO will create a substance record within the inventory system and populate it with pertinent safety information.

Purchase of chemicals for:	“New” Chemicals (chemicals not currently in inventory)	“Stock” Chemicals (chemicals currently in inventory)
Teaching labs (Biology and Chemistry)	<p>If the chemical requires prior approval, lab staff/faculty of the requesting department must contact the CHO for proper authorization (as described below) prior to purchase.</p> <p>If the chemical does not require prior approval, lab staff shall notify the CHO within 2 business days of purchase. Notification shall be in writing and include information about the associated lab procedure so that the CHO can create a substance record (including SDS) and update/create safety sheets or lab safety levels.</p>	<p>The individual department is responsible for ordering, receiving, adding to inventory and filing or forwarding accompanying SDSs to the CHO for filing.</p>
Research – Biology	<p>Aug-June: Professor requests chemical from lab staff. The lab staff obtains authorization from the CHO (or notifies of purchase), purchases the chemical, receives it, adds it to inventory and puts in the professor’s research lab.</p> <p>July: Professors obtain authorization from the CHO (or notifies or purchase, as required), orders chemical, and supervises receipt and entry into the inventory system by student researchers. The CHO is available to train student researchers and assist with this process, as requested.</p>	<p>The individual researcher or designated lab staff is responsible for ordering, receiving, adding to inventory and filing or forwarding accompanying SDSs to the CHO for filing.</p> <p>During summer months the CHO is available to assist with this process, as requested.</p>
Research - Chemistry	<p>If the chemical requires prior approval, the lab staff/researcher must contact the CHO for proper authorization (as described below) prior to purchase.</p> <p>If the chemical does not require prior approval, notify the CHO, in writing, within 2 work days of purchase. The CHO will then create a substance record (including SDS). The CHO is available to assist with</p>	<p>The individual researcher or designated lab staff is responsible for ordering, receiving, adding to inventory and filing or forwarding any accompanying SDSs to the CHO for filing.</p> <p>During summer months the CHO is available to assist with this process, as requested.</p>

	item records and bar coding during summer months.	
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PRE-AUTHORIZATION FOR 'NEW' CHEMICALS:

This approval process is not meant as a means to arbitrarily deny purchase of chemicals, but rather is a step in the purchasing process that allows Whitworth to ensure that all safety and regulatory issues have been addressed prior to purchasing particularly hazardous chemicals and ultimately to ensure the safety of individual chemical users. Please consult with the CHO if unsure about whether or not the desired chemical requires pre-authorization.

Types of Chemicals requiring pre-authorization:

Type	Definition	Rationale
Highly toxic chemicals	As defined in the Academic Chemical Management Program a highly toxic chemical is one that has an LD50 of <50mg/kg	Highly toxic substances may require special handling, storage, disposal protocols. Certain chemicals require specialized antidotes to be on site prior to use. Additional training and specialized PPE may also be required.
Radioactive	Any substance that emits ionizing or non-ionizing radiation. This includes radioactive isotopes.	For the reasons listed above and also to ensure that we have waste disposal protocols in place as radioactive materials are governed by different regulations that our standard chemical waste.
Highly reactive	This includes pyrophoric and water reactive chemicals.	These often require specialized PPE (flame resistant lab coats, etc.), containment or processes. We also have Fire Code storage limits that we must comply with.
Substances on the P code waste list	The list can be found here: WAC 173-303-9903	These chemicals are very toxic and in addition to the practical reasons listed above, these chemicals have significant ramifications for our waste management processes and generator status.
Biological agents	Any agent or organism requiring BioSafety Level 2 or greater for safe handling.	To ensure that all protocols and containment are in place to prevent contamination. Also to ensure that all regulatory concerns are addressed, including but not limited to, research approval by the Institution Biosafety Committee.

As noted in the Academic Chemical Management Program, the purchase of controlled substances is not allowed.

Process:

- 1) Email the chemical pre-authorization request to the CHO, including the chemical name and Chemical Abstract Service (CAS) number as well as any other helpful information, such as manufacturer or item number.
- 2) The CHO will evaluate the substance according to all of the items listed below.
 - a. If it is found that the substance requires any of the following (i-vi below), this information will be communicated in writing to the requester and department chair. The requester, department chair and CHO can then discuss how they would like to proceed. If the department is willing to incur potential additional costs (such as specialized PPE) and there is a clear plan in place to manage any other potential issues, then the substance may be purchased. The CHO reserves the right to delay purchase approval until all safety and disposal issues have been properly addressed.
 - i. Additional training,
 - ii. Additional regulatory compliance efforts,
 - iii. Specialized containment or storage
 - iv. Specialized PPE (or anything we don't currently have)
 - v. Exposure monitoring
 - vi. Disposal that will incur exceptional cost,
 - b. When the purchase is approved (either after the above discussion or outright), the CHO will input the necessary chemical safety information into the inventory database (including linking an SDS), create a substance record and determine proper storage compatibility. The CHO will also communicate any additional considerations (such as additional training or special waste management) to the requester.

CHEMICAL RECEIVING PROCESS:

These steps are completed by the purchaser or that lab staff that supports the purchaser once the chemical is received on campus. This process is the same regardless of how or why the chemical was purchased.

1. Check the package upon arrival for leaks or damage.
2. Mark the date received on each chemical container.
3. Do not remove or deface original label.
4. Attach appropriate GHS hazard labels to each container if the label doesn't already contain the proper information.
5. If the chemical is new, make sure that the person(s) who will be using it have reviewed a copy of the SDS.
6. Enter storage information for each container into the chemical inventory database and barcode the container.
7. Put the container away in the proper storage location.
8. Mark the packing slip with the date received and give it to the department purchaser.
9. Ensure that any SDS provided with the shipment is filed or forwarded to the CHO for filing.

REVIEW

Dean, College of Arts and Sciences:	Noelle Wiersma	Nov 7, 2016
Chemical Hygiene Officer:	Joy Diaz	Nov 1, 2016
Department of Chemistry Chair:	Deanna Ojennus	Nov 11, 2016
Department of Biology Chair:	Craig Tsuchida	Nov 7, 2016