Region 4 U.S. Environmental Protection Agency Laboratory Services & Applied Science Division Athens, Georgia	
Operating Procedure	
Title: Maintaining Chemical Inventory	ID: LSASDPROC-1010-R1
Issuing Authority: Deputy Director, LSASD	
Effective Date: June 6, 2020	Review Due Date: June 6, 2024

Purpose

This procedure is specific to the Region 4 Science and Ecosystem Support Division (LSASD) to maintain conformance to technical and quality system requirements. Maintaining an accurate inventory of chemicals within LSASD provides emergency and rescue personnel a quick mechanism for identifying potential hazardous within the work area in the event of a fire, or other disaster. Tracking of chemicals ensures that federal regulations requiring cradle-to-grave tracking of P-Listed chemicals are implemented and can reduce the purchasing of chemicals which may already be available within the division.

Scope/Application

The requirements of this procedure apply to all personnel who perform work under LSASD's quality system. LSASD's chemical inventory are controlled and monitored. These controls are critical for P-Listed hazardous chemicals that must be tracked from point of purchase to final disposal. Documentation of chemical inventories is the responsibility of the LSASD Chemical Hygiene Officer (CHO). This SOP is applicable to all chemicals maintained at LSASD that are entered into the chemical inventory. This SOP covers all chemicals used in the laboratory which includes; solvents, pre-made reagents, standards, raw chemicals, and mixed gases used in the air lab. This SOP excludes compressed gases used in the instrument labs that are used as carrier gases or for detector operations. While this SOP may be informative, it is not intended for and may not be directly applicable to operations in other organizations. Mention of trade names or commercial products in this operating procedure does not constitute endorsement or recommendation for use.

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1 Procedure

1.1 General Requirements

LSASD utilizes a commercially available software package, Vertére® Enterprise, to maintain and track the inventory of all chemicals purchased and in use within the LSASD facility. Vertére® is accessible at the following link:

http://x0202tnythvim.aa.ad.epa.gov/VIMEnterprise/Login.aspx

All employees should have access to Vertére® to view the inventory only. Only designated individuals will be able to make changes to the system/inventory. To gain access to the inventory, see the CHO or system administrator. Chemicals will be entered into the Vertére® system upon arrival at LSASD and will be tracked throughout the lifetime of the chemical using a barcode system. A complete list of the current chemical inventory is printed and kept in the guard station at the entrance to LSASD and also at the front desk. This list is updated quarterly.

1.2 Ordering of Chemicals

Purchase orders for chemicals should be prepared according to the following procedures. Prior to submittal of a PO, it is the originator's responsibility to verify that the chemical being ordered is not already available in the laboratory by logging into the Vertére® chemical inventory management software. This will ensure that no chemicals are unnecessarily ordered that may already be available in the lab.

1.2.1 Click on the Vertére® link above or type the address into your web browser and enter your password.

1.2.2 After logging in, select the Chemical button.

1.2.3 Select View/Update.

1.2.4 Items can be searched by the Barcode #, Location, Chemical name, or CAS#.

1.2.5 To view the complete inventory do not enter any data and select search. The complete list of chemicals at LSASD will be listed along with the barcode and other pertinent information.

1.2.1.1 After reviewing the current inventory of the desired chemical in Vertére®, the originator determines if the proper grade/purity/quantity of supplies are available for their application in the lab for use. If not, an order must be placed for new material. When ordering new chemicals, the requester is required to complete a purchase card order form. The form is located on the LAN. When completing the order form, the requester completes the form in its entirety and ensures that the correct vendor catalog number is recorded on the order form. Each order form must be accompanied

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by a quote showing the cost of the required chemicals. The completed form is then routed to the CHO and the respective Section Chief (or designee) for approval. The originator's signature on the order form indicates that the proper grade of the chemical has been requested.

1.2.1.2 The Section Chief will review the order form prior to approval. A check mark will be placed next to the vendor name which confirms that the Section Chief ensured that the vendor is on the approved supplier list. The approved vendor list is reviewed at a minimum quarterly and maintained within the Laboratory Services Branch and on the LSASD LAN.

1.2.1.3 The form is then passed to the LSASD approving authority and then to the purchasing representative for placing the order.

1.2.1.4 The originator, as well as the CHO, should be listed on the invoice.

1.2.1.5 The CHO will initiate the tracking system for P-Listed chemicals as appropriate. The CHO will also maintain a copy of all bankcard orders for all chemicals to monitor for delivery/receipt of chemicals into the laboratory, and to maintain inventories of chemicals. Questions and/or issues that may arise will be coordinated by the CHO with the appropriate originator and/or Section or Branch Chief.

1.3 Receipt of Chemicals

When chemicals are received at LSASD, the supply room clerk will immediately notify the CHO (or backup if appropriate). If the CHO is not available for an extended period of time, the CHO backup will serve as an alternate to receive, track and distribute chemicals. The shipment will be placed in recycling room off the loading dock for pick-up. An exception is that bulk shipments of acids and solvents which are placed in the Hazardous Materials Building upon receipt until the individual containers are needed in the laboratory. Bulk shipment must be transferred to the Hazmat Building within the same working day and cannot be in an unauthorized area over night, i.e., the loading dock.

1.3.1 The CHO will check the order, place a barcode on each container, enter the chemical information into Vertére® and initiate additional documentation if needed. For bulk shipments of acids and solvents temporarily stored in the Hazardous Materials Building, barcodes will be placed with the shipping box for personnel to place on individual containers when the chemicals are transferred to the main laboratory building.

1.3.2 The CHO will notify the originator of the receipt and they will retrieve the chemicals from the recyling room and store them in the designated laboratory.

1.3.3 The originator receiving the chemical will record their initials, date received and date opened on the individual containers of chemicals.

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1.3.4 LSASD personnel are responsible for ensuring that ALL CHEMICALS are maintained within the designated storage areas. The CHO must be notified and all tracking documentation updated if the materials need to be moved and/or stored in a different room within the laboratory. For laboratories containing flammable solvents, all flammables are stored in vented flammable cabinets, and the maximum allowable amount is posted on a placard in the room and may not be exceeded. Because of fire and life safety considerations it is acceptable to have less than the posted amount, but never more. For other chemicals, the maximum amount is determined by the volume which can be stored and used within a reasonable amount of time within an individual lab. If a new chemical needs to be added to the inventory or if inventories must be increased, coordinate with the CHO.

1.4 P-Listed Chemicals

All P-Listed chemicals will be tracked using the Chemical Tracking Form maintained on the LAN. P-Listed chemicals are transferred to the originator after the tracking form is signed and should be stored for use only within the designated area as recorded on the tracking form. The CHO will maintain the form in a file for reference. Upon receipt of an order of P-Listed chemicals, the CHO will:

1.4.1 Log the material into the chemical inventory;

1.4.2 Initiate the P-list Chemical Tracking Form;

1.4.3 Place the date of receipt on bottle;

1.4.4 Label the container(s) with a red “P” to designate as P-listed; and

1.4.5 Notify the originator that the order has been received.

1.4.6 The shipment will be taken directly to the appropriate lab for storage.

1.5 Removal of Chemicals from the Inventory

When chemical containers are emptied, the barcode on the bottle is removed and attached to the Chemical Reconciliation Form located within each lab. Periodically, the CHO will then remove the chemicals from the Vertére® inventory.

When any unused chemical and/or the empty container(s) for a P-Listed Chemical are ready for disposal, staff will notify the CHO. The responsible party must sign the P-List Chemical Tracking Form and notify the SHEM when the waste container reaches approximately 600 kg.

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Note: If a P-Listed chemical is transferred as a single component to other containers (and remains as a single component in the new container), then each container becomes "P-Listed" for disposal purposes and must be tracked and accounted for.

1.6 Annual Chemical Inventory Audit

A physical chemical inventory audit is conducted each year. The CHO is responsible for organizing the inventory and reconciling the discrepancies identified. The inventory process is described below.

1.6.1 Each chemical barcode is scanned and downloaded into Vertére®.

1.6.2 If barcodes are not scanned by the inventory team, the chemical and its associated barcode is identified as "potentially disposed of" and will be re-evaluated during the next inventory. If the barcode is missing two years in a row, then the chemical will be marked as disposed in Vertére® and taken off the current inventory.

1.6.3 If any chemicals are found during the inventory that do not have barcodes, they will be added to the chemical inventory and a barcode will be added.

1.6.4 There may be some instances where chemicals are found with barcodes that are not in the chemical inventory due to being moved or accidently disposed in the system. In this case the chemicals in question will be properly updated in Vertére® to reflect its current status or location.

2 Definitions

P-listed waste: By definition, EPA determines that some specific wastes are hazardous. These wastes are organized into three categories. The category applicable to our laboratory is called the P-list which includes specific commercial chemical products in an unused form including some pesticides. These products become hazardous waste when discarded. Waste included on the P-lists can be found in the regulations at 40 §CFR 261.33.

3 Related Documents and Forms

LSASD Chemical Tracking Form (LSASD FORM-1003), most recent version

4 References

Vertére® Enterprise User's Guide (v1.4), 1/2013

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5 Revision History

This table shows changes to this controlled document over time. The most recent version is presented in the top row of the table. Previous versions of the document are maintained by the LSASD Document Control Coordinator.

History	Effective Date
LSASDPROC-1010-R1, Maintaining Chemical Inventory, replaces SESDPROC-1010-R0 Updated naming convention due to agency re-alignment. Added clarifying language throughout. Updated the purchase order routing procedure to align with newly developed Divisional requirements.	June 6, 2020
SESDPROC-1010-R0, Maintaining Chemical Inventory, Original Issue	October 1, 2017

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