CHemical Inventory Management and Electronic Reporting Application

Clark County School District
Secondary Science Chemical Inventory Manual

The Clark County School District uses the Chemical Inventory Management and Electronic Reporting Application (CHIMERA) to maintain a site-specific hazardous chemical/substance inventory.

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powered by:

UNLV Risk Management and Safety Department

REQUESTING A USER ACCOUNT FOR CHIMERA

Each school site will be provided CHIMERA access for two administrators and two designated science teachers.

To obtain CHIMERA access: Go to your Internet Browser and type in this address: https://rms.unlv.edu/chimera/ccsd/

Select "Request a Login"

Teacher Login Request:

Complete the fields as indicated below:

Request a Login

Please fill out as many fields as possible. When complete, press Send.

First Name:	Teacher First Name
Last Name:	Teacher Last Name
E-mail Address:	xxxxxxx@interact.ccsd.net
Phone Number:	(702) xxx - xxxx ext:xxxx
Desired UserName:	xxxxxxxxxx
Type of Access:	Staff
Main Office (building):	4-digit school location code
Main Office (room):	(leave blank)
Comma-separated list of rooms (building and room number) for which you would like to run reports:	List all rooms with chemicals at your school site; for example: 925A,925B,925C,925,913

Send   Reset

Note: Click Here to view information on the different access types.

Staff (S) (Designated Science Teachers)

The staff user type has access to administratively assigned building-room areas, which includes the ability to view reports and edit inventories in those assigned areas.

Administrator Login Request:

Complete the fields as indicated below:

Request a Login

Please fill out as many fields as possible. When complete, press Send.

First Name:	Administrator First Name
Last Name:	Administrator Last Name
E-mail Address:	xxxxxxx@interact.ccsd.net
Phone Number:	(702) xxx - xxxx ext:xxxx
Desired UserName:	xxxxxxxxxx
Type of Access:	Staff
Main Office (building):	4-digit school location code
Main Office (room):	(leave blank)
Comma-separated list of rooms (building and room number) for which you would like to run reports:	Type the following in this space: Building Administrator Location #

Send   Reset

Note: Click Here to view information on the different access types.

Staff (S) with Building Administrator Rights (Designated Building Administrators)

The staff user type has access to assigned building-room areas, which includes the ability to view reports and remove non-scanned inventory items after the end-of-the year inventory has been completed by the designated science teacher(s).

Risk and Environmental Services Department staff will receive an e-mail requesting the user account. Risk and Environmental Services Department staff will contact the individual via Google email with a temporary password. The user must go to the following Web site and download and complete an Acceptable Use Policy/User Agreement Form:

http://ccsd.net/departments/environmental-services/chimera-chemical-inventory-program

Fax the signed form to (702) 799-2995 or e-mail to Chimera@nv.ccsd.net.

If you change school locations or positions, you MUST send an e-mail to Chimera@nv.ccsd.net telling them to remove your account completely. If you are designated as one of the two teachers or administrators at your new location or position, then you must make a new request for a CHIMERA account with your new information.

Other CHIMERA information can be found at:

http://ccsd.net/departments/environmental-services/chimera-chemical-inventory-program

REQUIRED INVENTORY EQUIPMENT

Computer
A computer on a cart or a laptop with internet access is required to access the CHIMERA inventory program via the CHIMERA website.

Login
In order to access the CCSD CHIMERA Web site please use the following link:
https://rms.unlv.edu/chimera/ccsd/

Do not Google "CHIMERA" as you may end up trying to log in to the wrong CHIMERA system. To verify that you are on the correct application, you should see the CCSD graphic below the login boxes.

Barcodes
The barcodes that are used for all laboratory chemicals are made with a chemical resistant polyvinyl compound. These barcodes are formatted to provide a unique number for each lab chemical inventoried. This method is used to help facilitate accurate chemical tracking. The CCSD CHEM ID barcode is always applied on the left-hand side of the product label.
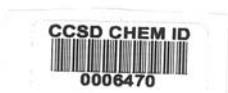
The barcode is assigned to an individual product for the life of that product. A barcode is only used once, and will never be re-used. **Additional barcodes can be requested from Risk and Environmental Services Department via e-mail. Send your request to Chimera@nv.ccsd.net. Be sure to include the school name, location number, and number of barcodes needed.**

Barcode Scanning Equipment
Each school site has been provided with one barcode scanner purchased by the IDPL Science Department. If additional scanners are needed, they are available as a catalog item through SAP, which is CCSD's purchasing system.

Personal Protective Equipment

It is required that appropriate Personal Protective Equipment (PPE) is worn while conducting the physical inventory. Not only will it protect those who are conducting the inventory, but it will also set an example for staff and students throughout campus. PPE includes: lab coats or aprons, gloves, and eye protection.

THE PHYSICAL INVENTORY PROCESS

Chemical Receiving Procedure

The purpose of chemical receiving is to intercept, label, and barcode all laboratory chemicals that are received. As a part of the chemical inventory program, this process will streamline the yearly inventory, as well as provide us an opportunity to locate the Safety Data Sheets (SDS) as soon as chemicals arrive on campus.

Overview of the Receiving Process

Packages are usually received by a school custodian. The chemicals must be immediately delivered to the science prep area, and the department coordinator should be notified. A copy of the packing slip should also be given to the department coordinator and kept on file.

Collect Packages

When beginning the receiving process, the department coordinator, or designated science teacher will verify that he or she is receiving the correct number of packages.

Inventory Startup and Preparation

When ready to inventory the new chemicals, the department coordinator or designated science teacher will log into the CHIMERA system. The receiver will put on all PPE. Gloves should ALWAYS be worn, even if the chemical is known to be non-hazardous. The chemicals should be barcoded, entered into the CHIMERA database using the scanner, and immediately stored in the proper chemical cabinets.

Additional Receiving Information

What should be done when a package contains a broken container?

No matter how well a shipment is packed, accidents do occur. If a receiver opens a box and discovers that one or more of the containers inside are broken, he or she should immediately close the box and determine if there is a safety issue. If you are uncertain, call Environmental Services at 799-0990 and report the problem immediately. If there was a packing slip, then make a copy of it and mark which items were broken. It is the responsibility of the purchaser to call the company and get a reshipment.

What if there isn't any packing slip for the items?

Occasionally, a package will come without a packing slip. There are several possible reasons for this: the package could be part of a larger shipment of non- chemical items and the packing slip is on one of those boxes, the shipper did not place a packing slip in the box, or the packing slip was lost. Notify the office manager and obtain a packing slip for the order to determine if there is a discrepancy within the order.

Which manufacturers ship chemicals?

Flinn Scientific currently is the supplier of chemicals for CCSD through the bid process. **Chemicals cannot be ordered with a CCSD purchasing (credit) card.**

The Inventory Routine

Preparation

The inventory preparation is crucial to completing the assigned tasks in a timely manner. The designated staff member should make sure that all PPE and inventory equipment are collected and ready to go prior to the start of the inventory.

Chemical Handling and Reading

Handle each chemical with care; always use <u>TWO</u> hands and always wear appropriate PPE. When reading the chemical information, make sure to take as much time as necessary to read all the information correctly.

## Barcode Process for Laboratory Chemical

In order to maintain continuity, the CCSD-CHEM ID barcode is always applied on the left-hand side of the product label.

In the instance that a container is too small, the barcode should be cut down to fit onto an acceptable location taking care not to cover up any hazard or chemical information.

Sealed Containers

While going through inventory, one might find a new laboratory chemical that is in a sealed metal can or plastic bag. In this instance, the staff is still required to assign the product a barcode during the inventory process. However, the staff member must attach the barcode with a second note that notifies the end-user to apply the barcode when he or she removes the product from the sealed container. Note the example below:
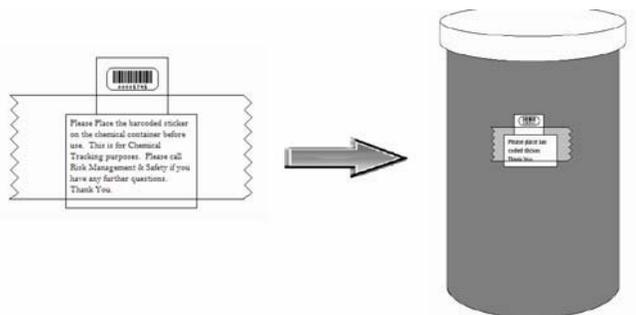
Kits

There are two types of kits:

One-time use kit: The box of chemicals can be inventoried as a "kit" with one barcode placed on the outside of the box. After use, the kit should be deleted from inventory using the "Remove Inventory" function.

Multi-use kit: Open the kit and label all products with individual inventory barcodes. The Southern Nevada Health District requires that all chemical products be properly stored in the appropriate flammable/corrosive cabinets. The box should not be entered as a "kit." The individual products within the kit should be entered into the system using the "Add Inventory" function.

There should be a procedure established at school sites for identifying components of multi-use kits so that chemicals from these kits are not used for other laboratory activities. For example, if a kit is purchased for a specific Advanced Placement Lab, in addition to the barcode, the container could also be marked with a letter or name of the corresponding kit.

Infrequent Issues

Chemical Spills or Broken Containers

In the rare occasion that there is a chemical spill or broken chemical container, the inventory team should call the Environmental Services, Hazardous Material Field Technician for assistance at (702) 799-0990. This procedure is to ensure that proper clean up and disposal is conducted. Each school site should have a spill control kit in the science prep area. Replacement spill kits are available as a catalog item through SAP, which is CCSD's purchasing system.

Hazardous Materials Inventories

The Hazardous Materials Inventory is required under Public Law 99-499 (Superfund Amendments and Reauthorization Act-SARA Title III), and NRS 477 and 459. CHIMERA inventory reports can be printed out and submitted with the school's inventory report as long as all required information is entered when adding a chemical to the CHIMERA inventory system.

THE CHIMERA ONLINE MANAGEMENT SYSTEM

The CHIMERA Online Management System is an interface that enables faculty, staff, and regulators access to crucial inventory information. This system provides easy access to reports, inventory management tools, first responder signs, and material safety data sheets among other functions.

Online Reporting

The online reporting functionality in CHIMERA is one of the most important features provided in the software. Various reports have been created to meet the needs of federal, state, and local regulators, as well as the needs of staff. Below are the lists of reports that Staff (S) (Designated Science Teachers) will be able to view:

Inventory Report

Provides a list of a school's science chemical inventory containing every chemical and its associated data.

Hazard Class Report

Provides a list containing every product in inventory along with its associated primary hazard.

P-Code Report (not frequently used)

Provides a total quantity of P-Code chemicals on campus. P-code chemicals are unused commercial chemical products containing only one sole active ingredient. "P" listed chemicals are acutely hazardous and are stringently regulated.

Cost Report (not frequently used)
Provides the sum cost per unit where cost figures are being tracked. This is a report that will not be used for CCSD school sites.

Non-scanned Products Report
Provides a list of all chemicals that have not been scanned based on date and selected building. This is only used after the end-of-the year inventory has been completed.

Restricted/Prohibited Reports
Provides a list containing any chemicals in the inventory that are on the "CCSD Restricted/Prohibited Chemicals" list from the *CCSD K–12 Science Safety Manual* revised in April 2015.

Inventory Management

The "Add Inventory" function enables users to input new chemicals.

The Difference between Barcode and Static Chemicals
CHIMERA has two separate chemical categories that are used during inventory: barcode and static.

Barcode Chemicals
A barcode chemical is any laboratory chemical that has been purchased from a chemical company such as Flinn Scientific, Fisher, or Ward's.

Please DO NOT barcode teacher-prepared solutions such as diluted iodine in dropper bottles. These need to be prepared for single use lab activities and should never be entered into CHIMERA.

Static Chemicals
A static chemical includes one-time use products such as dissection specimens, gas cylinders, and non-laboratory chemical. Examples include household items such as molasses, aspirin, sugar, Alka-Selzer, food coloring, and bleach. Static chemicals do not get a barcode. When entering a static chemical into the system, a box must be checked indicating that it is a static chemical and the UPC code must be entered into the barcode field. In addition, static chemicals must be inventoried annually, as the previous static inventory data expires after each new annual inventory has been completed.

The following information is required for each chemical inventoried:

Location and Barcode

Building: | MANDATORY | ▾

Room: | MANDATORY | Location ID: | OPTIONAL

Barcode: | MANDATORY | Static: ▢

Scan barcode here.   Check this box for a static item.

Chemical Information

Product Name: | MANDATORY

Full product names help facilitate the correct SDS being assigned to the product. A full product name includes concentrations; -hydrate information, etc.
For example: Bromophenol Blue, 0.04% Aqueous Solution

Manufacturer: | MANDATORY

There have been situations where a guess is made as to what the product's manufacturer is when one is not provided on the container. In such cases the provided part number has actually clashed with the manufacturer given resulting in additional contact with the teacher and CCSD Risk and Environmental Services Department to find which is correct. For containers that have no manufacturer provided please place an "N/A" into this field.

Size: | MANDATORY

Enter the capacity listed on the chemical container. For example, if it says "500 ml" enter "500." Do not estimate how much is left in the container; use the amount listed by the manufacturer.

Unit | Please Select ▾
MANDATORY

Container Type: Please Select **MANDATORY** ▼

Choose the container type for each chemical. This is required; Environmental Services will not accept the Inventory Report as the Hazardous Chemical report submitted in October/November of each year without a container type entered for each chemical.

Container Type	Description
A	Above ground tank
B	Below ground tank
C	Tank inside building
D	Steel drum
E	Plastic or non-metal drum
F	Can
G	Carboy
I	Fiber drum
J	Bag
K	Box
L	Cylinder
M	Glass bottle or jug
N	Plastic bottle or jug
O	Tote bin
R	Other

Part Number: **MANDATORY**

The part number on all Flinn chemicals is located directly above the chemical name. If it is not a Flinn chemical the part number should be located on the container label. There have been many instances where a teacher will enter just "1" or other non-related numbers in this field. The part number field is used to associate the chemical directly to the manufacturer's SDS. So it is important that the field is filled in accordingly with either the manufacturer's part number and/or a 12-digit UPC. Only in the instance where no part number is provided should an "N/A" be entered into this field.

CAS Number: **MANDATORY**

The CAS number is located on the container label.

Lot Number: OPTIONAL

The lot number is located on the container label.

Quantity: MANDATORY

Physical states are now collected off of the product SDSs to assure that it is being tracked correctly. No physical state needs to be entered for any chemicals.

There is a delay between when products are inventoried until the time they appear in an inventory report. During this time, each product that has been inventoried will be assigned an SDS by a CHIMERA technician. Once that has been completed, the chemicals will be available in the inventory report.

The "Remove Inventory" function enables users to scan (if a barcode scanner is available) or hand type individual barcodes for chemicals that are no longer in the inventory. This function helps in maintaining as close to a real-time inventory as possible. To remove a Static Chemical from inventory, you cannot enter the UPC code in the Barcode field. Please use the "Click Here to Delete Static Chemicals" function labeled above the Barcode field. It is extremely important that each school site establish a process for ensuring that empty chemical containers are collected in an established area so that they can be removed from the CHIMERA system before disposal of empty containers. If empty chemical containers are not removed from inventory, it will be difficult to reconcile the unscanned inventory report that has to be submitted to the science supervising administrator.

The "Transfer Inventory" function should not be used to transfer chemicals between schools; this is not allowed per Risk and Environmental Services Department. This should only be used to transfer chemicals to a new storage room location at your school site.

EDIT INVENTORY

The "Edit Inventory" function allows the user to change the listed quantities on each container, as well as assign a cost and a cabinet location to each individual product. To edit container types of statics use the "Edit Inventory" function and instead of entering a barcode, enter the S-[Building_number][Room_number]. This will provide them the ability to edit all of the statics in each area.

INVENTORY UPDATE

The "Inventory Update" function is a tool that enables users to complete the **required** end-of-year inventory process. **It is mandatory that all schools complete an end-of-the year chemical inventory in May/June.** Follow the directions on the screen at the bottom under "Notes." After you have completed the Inventory Update, go to Reports and click on "Non-Scanned Products Report." Enter the "Inventoried Before" date. This should be the date that you started the Inventory Update process. For example, if you started the Inventory Update process on May 7, 2015, and finished on May 30, 2015, enter May 7, 2015 as the Inventoried Before date. Print out the report. If any chemicals appear on this report, you will have to find out where they may be:
• Are they in a teacher's room?
• Did an empty bottle get thrown away without it being removed from inventory through the CHIMERA system?

Take the report to your Designated Administrator with a CHIMERA login. This Designated Administrator has the rights to Remove Non-scanned Inventory Items under the Inventory Management Tab.

REMOVE NON-SCANNED INVENTORY

The "Remove Non-Scanned Inventory" function enables designated site administrators who have been approved as building supervisors to remove all chemicals, both barcode and static, that were not updated by the Inventory Update function during the annual end-of-the year inventory. Barcoded product data that is removed from inventory is archived in case future reference is needed. This removal process should only be done when every step has been taken to ensure that the chemical was not misplaced, stolen, or an empty container thrown away before it was deleted from the inventory.

This tool enables users to transfer an entire room's inventory into a different room.

NFPA Sign Generator (Optional)

An NFPA sign is used to assist first responders by providing them with quick access to the inherent chemical hazards located within the area of interest, as well as other useful hazard information, including radioactive and biohazards. A school may choose to create these signs for doors and/or chemical cabinets.

Searches

Inventory Search
The inventory search provides tools that enable CHIMERA users to locate chemicals in a variety of ways. Below are the lists of searches that are currently available: Product Name, Part Number, Manufacturer, or CAS number.

Barcode Search
Searches for specified barcodes and provides location information.

Cost by Barcode Search
Searches for specified barcodes and provides the cost per unit. This is a report that will not be used for CCSD school sites.

Safety Data Sheets (SDS)
As mentioned earlier, a safety data sheet is a form containing data about the properties of a particular substance. In accordance with Hazcom 1910.1200, an SDS must be available for every chemical located on campus. These forms also provide crucial information that is used for reports that are required to submit to federal, state, and local regulators. Through CHIMERA, users have access to all of the SDSs in the system.

When searching for a specific SDS, a user has much of the same functionality that he/she would have using a normal search bar. If the user was looking for a Fisher brand acetone, then he or she would simply need to type "acetone AND fisher" and a list of results will appear (as seen below). A user simply needs to click the product name for the SDS that they are interested in viewing and the file will open for them.

The Risk and Environmental Services Department requires that hard copies of SDSs be available at each school site. Ensure that alphabetized copies of Safety Data Sheets (SDS) for every chemical are kept in a binder in the science prep area and an additional binder be kept in the designated administrator's office. SDS sheets will have specific labeling that gives the name, hazard, and first aid procedures in case of exposure.

In addition, all SDSs should be printed by a teacher before conducting a laboratory experiment, and available in the classroom during the lab in case of an emergency. These SDSs can be kept with teacher lesson plans.

All teachers are required to complete an online content course housed in Pathlore: Keyword Global Harmonization. This course will introduce you to the recent updates to the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard. It focuses on the two significant changes contained in the revision standard which require use of new labeling elements and a standardized format for Safety Data Sheets (SDSs). The new label and SDS requirements are meant to improve understanding of the hazards associated with the chemicals at your workplace.

Questions may be directed to:

Instructional Design and Professional Learning Division, K-12 Science Department
(702) 799-2348

Risk and Environmental Services Department
(702) 799-6496