UMKC

UNIVERSITY OF MISSOURI
KANSAS CITY

Environmental Health and Safety

CHEMICAL MANAGEMENT PLAN

Revised
November
2024

University of Missouri – Kansas City

Effective Date: January 1, 2006

Responsible Parties: All Employees and Students

Issued by: Guy Bailey
Chancellor

Environmental Policy Statement

Purpose

This policy provides the University of Missouri-Kansas City with a cohesive statement of direction to align each element of Environmental Sustainability and Compliance into a single framework of cooperation and commitment.

Vision

UMKC embraces safety responsibility, pollution prevention, regulatory compliance, the minimization of occupational risk, and a continual effort to improve environmental conditions while empowering its stakeholders to meet or exceed the Federal, State, and Local regulatory agency standards by promoting best practice model attitudes, inspiration, and achievement.

Policy

- **United Responsibility**
  UMKC administrators, employees and students will conduct daily operations in a manner that safeguards themselves, coworkers, and the University Community from immediate or latent harm.

- **Minimization of Waste Material and Energy Used**
  UMKC will minimize waste generation through sound principles of material reduction, reuse, and recycling. Each facility will foster operating procedures designed to prevent the release of hazardous substances that may cause harm to people or the environment. Each facility will respond to the challenge to reduce the waste energy usage in all forms of environmental expenditure. Each Facility will operate as efficiently as reasonable achievable.

- **Knowledge Based Approach**
  UMKC will encourage the University Community to be environmentally responsible by providing them with programs, drills, and training that incorporate aspects of learning and awareness. Periodic environmental, safety, and risk assessments will be performed at each facility identifying, prioritizing and recommending appropriate measures of improvement to management with impact review provided in a timely manner to responsible parties.

- **Commitment to Sustained Health and Safety Conditions.**
  UMKC is committed to providing safe and healthful working conditions and to preserve our human resources through the promotion and execution of workplace safety, security, risk reduction and environmental advancement. This commitment is manifest by knowledgeable Faculty, Staff, and Students dedicated to practicing proper safety principles.

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UMKC CHEMICAL MANAGEMENT PLAN

This document constitutes the Chemical Management Plan (CMP) for the University of Missouri-Kansas City (UMKC). It was developed by the Environmental Health and Safety Department (EHS), to ensure the safe and proper use of hazardous and non-hazardous chemicals and to comply with applicable governmental regulations addressing the disposal of these chemicals. In addition, it was developed to foster waste minimization, and to provide the faculty and the staff with a management program to reduce the potential for accidents involving hazardous chemicals and/or wastes. Elements of the CMP include:

a. a procedure for identifying potential or actual hazardous chemicals or wastes

b. a procedure for periodic reexamination of those hazardous chemicals or wastes identified by the procedure in (a.) above as well as a systematic method for identification and evaluation of any new potential or actual hazardous chemicals or wastes

c. procedures for labeling, and inventorying hazardous chemicals or wastes

d. a procedure for identification and training of personnel directly responsible for ensuring that (a.), (b.), and (c.) are implemented

e. a procedure for monitoring, recording, and reporting compliance with the CMP

f. a procedure by which information generated by the CMP is provided to the persons performing waste analyses

Each element is addressed as part of the complete CMP in the following paragraphs.

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1 Definitions

Authorized Users List – a list to be posted in every lab that will provide the names of all **Hazardous Material Managers**, **Hazardous Material Supervisors**, and **Hazardous Material Workers** that are authorized to work in each specific area, and the date it was authorized.

Bar Code System (On-Site System/Environmental Health & Safety Assistant) - The computer program which maintains UMKC's hazardous chemical inventory and which generates bar code labels and routine inventory reports. Every **Hazardous Chemical** must be registered in the inventory. An inventory label with a unique bar code number must be affixed to each inventoried container.

Central Storage Area - area where chemicals can be safely stored when not in continued use in a laboratory. Each **Hazardous Materials Manager** overseeing a **Central Storage Area** will maintain an inventory of chemicals contained therein. Each **Hazardous Materials Supervisor** will maintain an inventory of all chemicals in their designated laboratory.

Chemical Storage Building (CSB) - the facility maintained by **Environmental Health and Safety** for the receipt and storage of designated hazardous (and some non-hazardous) wastes generated from the Volker Campus until disposal. Only hazardous waste from contiguous properties will be stored in this location.

Container - that vessel in which the chemical was originally contained or into which the chemical may have been placed for storage in the case of damage to the original container and should be UN/USDOT approved. Chemicals may not be stored in milk jugs, trash bags**,** cardboard boxes or any other containers that are not UN/USDOT approved. All containers must have secured lids, not rubber stoppers, corks, aluminum foil, shrink tape, Saran wrap, etc. An apparatus with secured chemicals, such as a monometer, would not be considered a container by this CMP. See also the definitions of **Original Container, Empty Container, Use Container, Secondary Container,** and **Hazardous Waste Container.**

Empty Container - empty containers of **Hazardous Chemicals** as defined in 40 CFR 261.7 may be managed in two ways depending on the nature of the contents.

1) Containers used for chemicals listed in the RCRA P List (Acute Hazardous) or Mercury containing chemicals must be disposed of through **Environmental Health and Safety** and should not be rinsed. These containers will be listed on the **Hazardous Waste Request Form** via the Onsite system (see Appendix B) with other chemicals.

2) 2) Containers used for all other labeled chemicals may be triple rinsed, the rinseate placed in a proper waste container, obliterate the labels, and place the empty container in the trash or reuse it.

Environmental Health and Safety (EHS) – Department responsible for implementation and enforcement of Federal, State and Local regulatory compliance, environmental and occupational safety management at UMKC.

Exempted Product Categories/List - categories of chemicals commonly in use in the laboratories and determined to be non-hazardous based on the regulatory definition of a hazardous chemical. These chemicals will not be entered into the **Bar Code System**. Product will not be added to the Exempted Product Categories List without approval of **EHS**. An Exempted Product Categories List of chemicals specifically excluded from the Inventory/Labeling System will be maintained by **EHS** and is found in Appendix A.

Generator – see **Hazardous Materials Manager**

Hazardous Chemical - any chemical which is a physical or health hazard (29 CFR 1910.1200). For purposes of this Chemical Management Plan, chemicals to be inventoried and labeled include all listed under **RCRA** 40 CFR 261.31, 261.32, 261.33 (e) and (f) including chemicals that could generate a characteristic waste, chemicals on the RCRA- P and U Lists, and the California List. The combined California, RCRA- P and U Lists are found in Appendix A.

If the chemical is on the RCRA- P List (see Appendix A) or contains mercury, it must also be noted on the container with a red "P" to indicate, when empty, the container will be properly disposed through **EHS**.

Some categories of chemicals have been excluded from the Inventory/Labeling System and placed in the **Exempted Product Categories/List**. Chemicals not covered in the **RCRA** Regulations and Lists or the **Exempted Product Categories/List** will be inventoried and labeled, unless specifically exempted by the Director of **EHS**.

The purchaser of the chemical is responsible for determining whether the chemical must be included in the **Bar Code System**. To make the determination, the purchaser may seek assistance from **EHS** or he (or she) may consult the chemical's **Safety Data Sheet (SDS)**. An SDS shall be retained in the file for all **Hazardous Chemicals**.

Chemicals formulated in conjunction with ongoing research are exempted from the definition of a **Hazardous Chemical** but require a waste determination and may have to be disposed of as hazardous chemicals.

Hazardous Waste Request Form - web based form via the Onsite system which information is provided to **EHS** by the **Hazardous Materials Manager** or **Hazardous Materials Supervisor** and must accompany chemicals and empty containers that had contained chemicals from the **RCRA** P-List or contains Mercury.

Hazardous Materials Manager - person who is designated in the Chemical Management Plan as having the responsibility of maintaining an inventory of chemicals in the Central Storage Areas and in the Distribution Areas for laboratories not served by Central Storage Areas. That person is also responsible for the safe storage and proper handling of the chemicals in the Central Storage Area. As chemicals will not be stored in the Distribution Areas, the Hazardous Materials Managers of those areas will be responsible for maintaining the inventory of all incoming chemicals, the associated **Safety Data Sheets**, and distribution information. The Hazardous Material Manager is also responsible for oversite of **Hazardous Waste** determination and disposal requiring annual training by **EHS**.

Hazardous Materials Supervisor (Principal Investigator) - person designated as responsible for the safe storage of, and the maintenance of, an inventory of chemicals, and **Empty Container** management within specific laboratories. This person is trained and competent in complying with the requirements of this Chemical Management Plan. This supervisor may designate and train persons under his or her supervision to be responsible for a particular laboratory. Such persons would be authorized users (see **Authorized Users List**) as defined in this Chemical Management Plan.

Hazardous Materials Worker - persons designated by a Hazardous Materials Manager or Supervisor (Principal Investigator) as responsible for a specific laboratory or facility (hereinafter, laboratory) and who are authorized, along with **Hazardous Materials Supervisor**, to accept **Hazardous Chemicals**, products or byproducts (hereinafter, chemicals) from a Central Storage Area or Distribution Area for use. An **Authorized User List** must be posted in each laboratory.

Hazardous Waste - chemicals that meet the **RCRA** definition for hazardous waste (40 CFR 261.30 (b), Ignitable, Corrosive, Reactive, Toxicity Characteristic, Acute Hazardous and Toxic), **Hazardous Chemicals** past their shelf life, or damaged **Hazardous Chemicals**. Any residue from a compound formulated in the laboratory from non-hazardous constituents but which is subsequently hazardous by **RCRA** definition will be managed as hazardous waste. Spill debris, cleanup chemicals, and broken apparatus involving any **RCRA** defined **Hazardous Chemicals** will also be considered hazardous wastes per a waste determination.

These chemicals will be placed in satellite accumulation containers which will be properly labeled with all required information (see **Satellite Accumulation Label**). **Hazardous Materials Supervisors** are responsible for identifying the chemicals in these containers. These satellite accumulation containers must remain closed unless adding chemicals to them. UMKC is under the Federal Option in Missouri. EHS recommends that containers be maintained in the **Satellite Accumulation Area** for no longer than one year, or until full. When the containers are full, EHS recommends the container(s) be removed to the hazardous waste storage area. A Hazardous Waste Request Form via the Onsite system must be completed for disposition of wastes by **EHS**. The wastes identified in the **Hazardous Waste Request Form** will be removed by **EHS**.

All spent aerosol containers will be collected by **EHS**.

Hazardous Waste Container – Container that contains **Hazardous Waste**

Hazardous Waste Tag – A tag containing the required information for classifying the chemicals for proper recycling, storage or disposal is to be attached by the **Hazardous Materials Manager** or designate, to each container of waste hazardous chemicals to be collected by **EHS**. This tag/label must accompany each container of chemical to the **CSB**. Waste chemicals without the tag/label, will not be retrieved by **EHS**. An example of this label is found in Appendix B.

Inventory - electronic documentation of the Bar Code Number, the Hazardous Chemical Name, the volume (L) or quantity (kg), and the CAS Number of all hazardous chemicals maintained on each Campus. **Hazardous Materials Managers** will have access to the inventory. Purchasers of chemicals are required to enter all new **Hazardous Chemicals** into the inventory system and remove all those consumed or removed for disposal. All items meeting the criteria for a hazardous chemical must be inventoried. Hazardous chemicals may not be retained in a laboratory unless placed in the inventory system. It is the responsibility of the **Hazardous Materials Manager** or their designate to ensure that chemicals: no longer used in the laboratory; that have exceeded their shelf- life; or those in damaged containers, are removed from the inventory.

Inventory Life – It is the responsibility of the **Hazardous Materials Supervisor** to ensure that chemicals are not allowed to remain in the laboratories or storage areas beyond their useful shelf life period.

Safety Data Sheet (SDS) - document displaying the chemical identity, CAS number if applicable, toxicity, incompatibility, disposal data, and the other physical and chemical properties associated with a chemical as well as the appropriate safety procedures to be implemented in case of release and/or human exposure. The document is prepared by the manufacturer, distributor, or importer of the chemical to be kept on file by the **Hazardous Materials Supervisor** and available to all lab personnel.

Mixed Waste – a mixture of special nuclear or byproduct material regulated under the Atomic Energy Act and wastes regulated under **RCRA**. Under an agreement between the Nuclear Regulatory Commission (NRC) and the Environmental Protection Agency (EPA), these wastes may be stored, treated, transported and disposed of as radiological wastes. Such wastes are exempted from hazardous waste handling requirements of **RCRA**. The generator of mixed waste is required to notify the state environmental agency that the mixed wastes are generated and that they will be managed under NRC rules.

Original Container – A container that still has the original vendor label, and the original contents to the container. Original containers are UN/USDOT approved. For **Hazardous Chemicals**, a **SDS** is required to be kept on file and available. This container is required to be entered into the **Bar Code System** by the purchaser of the **Hazardous Chemical** and to have a bar code label affixed. The original label must be removed and the contents triple rinsed (if hazardous) in order for the container to be disposed.

Note: P-Listed chemicals and Mercury containing chemicals must be disposed of by **EHS** and should never be considered empty or triple rinsed.

PPE – Personal Protective Equipment

Principle Investigator or PI – see **Hazardous Materials Supervisor**

RCRA - Resource Conservation and Recovery Act of 1976 (40 CFR 262-268)

Satellite Accumulation Area - area in a laboratory where waste hazardous chemicals may be accumulated prior to collection and disposition by EHS. Such storage is to be kept to a minimum, should be at or near the point of generation and under the control of the generator. The Satellite Accumulation Area will be separate from the area in which chemicals in use are kept. The chemicals stored in the Satellite Accumulation Area must be stored in a safe manner in UN/USDOT approved containers. It is the **Hazardous Materials Supervisor's** responsibility to have weekly inspections performed on each Satellite Accumulation Area in their labs. EHS recommends that full waste containers be removed to the hazardous waste storage area by **EHS**.

Satellite Accumulation Label - label to be attached to each container of waste hazardous chemicals. The label must contain the following information: A list of all the constituents; volume (or percentage) of each constituent; and the Start Date (the date when the first drop of waste was placed in the container). It may contain the words "Hazardous Waste" (40CFR262.34(c)(1)(ii)). This information is required by **EHS** for classifying the chemicals for proper transport, recycling, storage or disposal. These labeled containers will be collected by **EHS** for disposal or recycling. This label must accompany each container to the **CSB**. The label is produced through the Onsite system Satellite Accumulation function. Unlabeled chemicals will not be retrieved by **EHS**. An example of this label is found in Appendix B.

Scanner – a hand-held device that scans hazardous chemical bar codes on inventoried containers to update the **Bar Code System**.

Secondary Container – a container in which the initial container is placed when it is too small to affix the bar code to it, when the **Original Container** is to be moved between labs, or when a container may be at risk of damage from some external force which could result in spillage.

Use Container - a container, e.g., flask or plastic squeeze bottle, in which chemicals, hazardous or non-hazardous, are contained and left unattended in the laboratory. These containers must have the name of the chemical affixed to them. They do not require Bar Codes. An example would be a plastic squeeze bottle containing distilled water left unattended on a bench top. The bottle must be labeled "Distilled Water."
If a Use Container contains a Hazardous Chemical, it must have a screw-on lid.

Waste Container – see **Hazardous Waste Container**

2 IDENTIFICATION OF HAZARDOUS CHEMICALS

2.1 Identification and Inventory/Labeling

Identification of hazardous chemicals will be made at the time of purchase. Items meeting the criteria will be entered into the Bar Code System. For purposes of this CMP, chemicals to be inventoried and labeled include:

- all chemicals listed under RCRA 40 CFR 261.31, 261.32, 261.33 (e) and (f) including compounds that could generate a characteristic waste
- RCRA- P and U Listed and California Listed chemicals and DHS Chemicals of interest (see Appendix A)
- Containers of chemicals on the RCRA- P List and chemicals containing mercury will be specially marked with a red "P" and disposed of as hazardous chemicals through EHS

Some categories of chemicals have been excluded from the Bar Code System forming an Exempted Product Categories List. Chemicals NOT covered in the RCRA Lists or the Exempted Product Categories List will be inventoried unless specifically exempted by the Director of EHS.

Requests to exempt chemicals from the Bar Code System should be submitted to the Director of EHS. If approved by the Director of EHS, the chemical can be removed from the Bar Code System.

The purchaser of the hazardous chemical is responsible for making the determination as to whether the chemical is to be entered in the system. EHS can provide assistance, or the purchaser may consult the SDS for the chemical. Once a chemical is determined to be hazardous, the purchaser must enter the following information into the Bar Code System:

1) chemical identity
2) quantity of chemical
3) lab location

Once the information has been entered into the inventory, the bar code label may be obtained from the Hazardous Materials Manager for the area. A bar

code label must be affixed to each container. When inventoried chemicals are no longer needed in a specific laboratory, the Hazardous Materials Supervisor may transfer or arrange with EHS for the transfer of the chemical(s) to another laboratory. The Hazardous Materials Supervisor may move chemicals within a building, but must notify the Hazardous Materials Manager of their department. Environmental Health and Safety is required to be used when chemicals are moved between buildings. In either case, secondary containment is required when the chemicals are moved.

3 HAZARDOUS CHEMICALS MANAGEMENT

3.1 Chemical Purchase

Hazardous Materials Supervisors may purchase chemicals or chemicals may be ordered through the University purchasing system. No chemicals may be received without an accompanying SDS sheet.

3.2 Laboratory or Facility – Management Responsibilities

As previously stated, the Hazardous Materials Supervisor is responsible for:

- entering hazardous chemicals in his or her laboratory into the inventory system (Bar Code System)
- placing the appropriate bar code label on each of the inventoried chemical containers
- updating the system as required due to chemical transfer or disposal
- removing spent chemicals, chemicals in damaged containers, and chemicals that have exceeded their shelf life from the inventory

A bar code label is issued by the Hazardous Materials Manager when the hazardous chemical is entered into the Bar Code System by the purchaser of the chemical. The bar code must be affixed to the container. If the container is refrigerated, the bar code may be placed on the outside of the refrigerator. All bar codes must be displayed vertically such that they can be easily read by the scanner used by EHS staff during inspections. The bar code will display the following information:

- a unique number generated by the Bar Code System
- the name of the chemical
- the start use date of the chemical
- the hazardous material supervisor's name
- a red "P" if the material is a RCRA-P listed waste or a chemical containing mercury

3.3 Hazardous Waste Chemicals

The hazardous waste chemical containers will be labeled with the name of the chemical(s) and the date (month/day/year) when the chemical was first added to the container. If the chemical is a mixture, the percentage content of at least two major components must be indicated on the label. This information is necessary in order to allow EHS to classify the chemical for recycling or disposal. Waste hazardous chemicals, properly containerized and identified, will be retrieved by EHS. A Hazardous Waste Request Form must be generated from the Onsite system from the EHS website and clicking on the Onsite Chemical tracking icon: http://www.umkc.edu/finadmin/ehs/

An example is included in Appendix B. The following information is required for the form:

- the date the form is submitted
- the department of school from which the waste is to be picked up
- the generator's name
- the name of the person authorizing charges for the pickup
- account name and number to be charged
- location of wastes to be picked up
- notation of immediate attention required
- the names and volumes of chemical wastes to be picked up
- information such as container type, and waste characteristic

All waste containers must have a secure lid on them at all times unless adding chemicals to the container. All containers with hazardous chemicals must have a screw-on lid.

3.4 Damaged Containers

Containers of chemicals whose integrity has been compromised must be replaced. If the chemical is still usable and needed, the contents may be transferred to another compatible, UN/USDOT approved container. A proper label must then be applied and a new bar code must be issued (or the required information must be transferred to the new label). The modification

would be noted in both the Central Storage Area and laboratory inventories. If the chemical is not in use nor anticipated to be used within one year, the contents will be transferred to another container and returned to Central Storage Area. Central Storage Area personnel may return the item to storage or, if there is no anticipated use for the item, designate it for retrieval by EHS. The disposition would be noted in both the Central Storage Area and laboratory inventories. In laboratories not served by a Central Storage Area, a chemical not in continuous use will be retrieved by EHS for disposition.

3.5 Empty Containers

Empty containers of hazardous chemicals as defined in 40 CFR 261.7 may be managed in two ways depending on the nature of the contents. Empty containers used for chemicals listed in the RCRA P List (Acute Hazardous) or chemicals containing mercury must be disposed of through EHS. These containers will be listed on the Hazardous Waste Request Form via the Onsite system with other chemicals. Containers used for other labeled chemicals may be triple rinsed, the rinseate placed in a proper waste container and the empty container reused or disposed of as refuse. Remove or obliterate labels on all empty containers prior to disposal. Remove chemical from the inventory system.

3.6 Disposition - Hazardous Chemicals

EHS will be responsible for retrieval and disposal of chemicals from laboratory Satellite Accumulation Areas. Hazardous Material Supervisors will be responsible for identifying chemicals for retrieval by EHS. A Hazardous Waste Request Form (see Appendix B) must be completed from the onsite system which can be accessed through the EHS website, per the instructions, for transfer to the CSB. It is the generator's responsibility to remove the chemical from the inventory system.

3.7 Audits of Laboratories or Other Areas Generating Hazardous Waste

On an annual basis, EHS staff will audit each laboratory within the jurisdiction of the CMP. Audits will be performed on a schedule to accommodate teaching schedules. A physical audit of all chemical use and storage areas and satellite accumulation areas will be performed for proper labeling, container compatibility, and container integrity. The bar codes on the hazardous chemicals will be scanned and compared with the inventory. The condition of containers will be noted and compared to inventory information. Laboratory training records and the authorized user list will be reviewed to ensure that personnel in the laboratory are properly trained and that the authorized user list is up-to-date.

Laboratories with discrepancies will be notified and re-inspected within thirty days of the initial audit. A copy of the audit report will be provided to the Hazardous Materials Manager and Supervisor. The audit reports will be maintained for at least two years.

4 Implementation of the Plan

4.1 Administration

"The Chancellor of the University of Missouri – Kansas City (UMKC), has the ultimate responsibility to ensure that all campus activities comply with regulatory agency requirements concerning environmental health and safety conditions existing at the University. The Chancellor may at his or her discretion delegate that responsibility and commensurate authority to an appropriate administrative officer of the University. At this time, I am officially delegating this responsibility to the Vice Chancellor for Administration and Finance and through him the delegation extends to the Director of Environmental Health and Safety (EHS). Through this delegation, the Director of EHS has the operational responsibility and authority necessary to achieve compliance with environmental health and safety regulations at UMKC. This includes authorization to immediately stop activities or conditions that would constitute an urgent or serious health risk to members of the campus community or to the environment." Environmental Management System Regulatory Compliance, Reporting and Authorization May 25, 2006

The CMP is administered within the established Central Storage or Distribution Areas and each academic department (laboratory) or service unit (facility) that use hazardous chemicals and/or generates hazardous waste. The proper management of chemicals within each facility is the responsibility of the Faculty, Staff, Students, and visitors to the UMKC campus associated with each facility. Designation of Hazardous Materials Managers and Supervisors and the delegation of responsibility for implementing the CMP procedures in the Central Storage Areas, Distribution Areas and laboratories are made at the discretion of the Dean, Chairperson or director of the affected area with approval of the Department of EHS. Assignments are dependent upon area-specific factors such as: a physical layout; size and complexity of the operation; an individual's proximity to and familiarity with the hazardous chemicals; and the variety and quantity of used chemicals generated. In research and teaching laboratories the Hazardous Materials Supervisor is generally the principal investigator or

instructing professor. For service and support units, line supervisors and/or assistant directors generally serve as the Hazardous Materials Supervisors. Each area and service unit affected has documented 1) personnel assigned, 2) area of responsibility, and 3) duration of responsibility. EHS should be notified of changes in area or service unit personnel status.

A list of all personnel authorized by the Hazardous Materials Supervisors to accept/receive chemicals into the facility from a Central Storage Area, a Distribution Area, or a vendor should be kept on record by the respective Hazardous Materials Manager, and EHS with a list posted in the facility. A list of Central Storage Areas, facilities, and laboratories with associated responsible persons shall be maintained by EHS.

"In order to continually certify that UMKC is in compliance with appropriate safety regulations and our environmental management system, it is necessary for the Director of EHS to periodically perform compliance assessments of university safety programs. From these assessments an Annual Environmental Compliance Report will be provided to the Chancellor detailing the status of compliance, recommended program modifications, and significant regulatory changes." Environmental Management System Regulatory Compliance, Reporting and Authorization May 25, 2006

4.2 Personnel Training

Training will be provided by EHS staff to newly assigned individuals within 30 days of anticipated use of hazardous chemicals. It is the responsibility of the Hazardous Materials Managers to notify EHS of newly assigned individuals with anticipated use of hazardous chemicals. Approximately two hours of training will be provided including:

1) an overview of the regulatory background
2) the definitions of hazardous chemical to be labeled in the Inventory/Labeling System (including empty containers)
3) an overview of used hazardous chemical management

4) emergency response

5) instruction in the use of the documentation forms

6) a review of university policy (CMP) on hazardous chemicals management

7) empty containers

8) regulatory changes

Training will be modified to address compliance issues or changes in requirements. Annual retraining will be provided for Hazardous Materials Managers. Training records will be documented and maintained by EHS. It is the responsibility of the Hazardous Materials Managers to distribute pertinent information to their Hazardous Materials Supervisors and Hazardous Material Workers. Refresher training by EHS personnel will be provided to the Hazardous Material Supervisors and Hazardous Material Workers as necessary to update substantial changes in the regulations and/or UMKC policies with respect to the safe use and handling of hazardous chemicals.

5 Monitoring and Compliance Reporting

5.1 EHS Audits of Central Storage Areas and Laboratories

EHS is responsible for auditing each laboratory annually using the EHS Audit Checklist to document findings and is responsible for monitoring the CMP under established protocols. An audit consists of a review of the hazardous chemicals, storage practices employed, the status of the containers, container labeling, and the shelf life information if available are observed and inspected. The bar code is scanned and compared with the laboratory's inventory. The Authorized Users List is examined, and the Hazardous Materials Supervisor (or designated lab supervisor) is interviewed regarding chemical and waste management practice. The EHS Audit Checklist is found in Appendix B.

Facilities with deficiencies, not deemed an Urgent or Serious Health Risk (see Section 4.1), will be subject to re-inspection within thirty days of the initial audit. Reports of the audit findings are forwarded to the Hazardous Materials Manager and Supervisor, and the Director of EHS. The reports include deficiencies noted and corrective action recommended.

A laboratory with deficiencies will be allowed thirty days from the date of notification to comply. At the discretion of the Director of EHS, if there is a potential threat to health or environment, immediate action will be taken. If it is not possible to achieve compliance within the period, the Hazardous Materials Supervisor must notify the Director of EHS and request assistance. However, if within that time no request for assistance is made and no action is taken to remedy the deficiency, EHS will issue a warning letter to the Hazardous Materials Supervisor and a copy to the Hazardous Materials Manager.

The letter will state that unless the deficiency is corrected within thirty days, enforcement action will be taken. At the discretion of the Director of EHS and with approval of the Vice-Chancellor of Administrative Services and the Provost, enforcement actions can include correction or cleanup of the deficiency by EHS

personnel with the costs assessed to the department; closure of the laboratory, and/or loss of laboratory privileges; or other appropriate measures specific to the deficiency.

6 RCRA Generator Responsibilities

6.1 Chemical Storage, Transportation, and Disposal

EHS is responsible for transporting all hazardous chemicals and hazardous waste. Hazardous Waste on the Volker Campus will be removed from the satellite accumulation areas to the Chemical Storage Building upon the formal request of the Hazardous Material Supervisor or Manager. The Chemical Storage Building is a 90-day hazardous waste storage area, managed in accordance with 40 CFR Part 262. Hazardous Waste on the Hospital Hill Campus will be removed from the satellite accumulation areas to the SQG Storage area. This area is a 180-day hazardous waste storage area, managed in accordance with 40 CFR Part 262.

6.2 Generator Status

The University Volker campus is registered as a Large Quantity Generator (LQG). LQG is defined as an entity that generates 2200 pounds or more of hazardous waste, or 2.2 pounds of acute hazardous waste, per calendar month. Under Missouri regulations, anyone who stores 2200 pounds or more of hazardous waste at any period is classified as a LQG.

The University Hospital Hill Campus is considered as a Small Quantity Generator (SQG). A SQG may generate or store more than 220, but less than 2200 pounds of hazardous waste, or 2.2 pounds of acute hazardous waste, per month with 180 day storage.

6.3 Generator Requirements

6.3.1 Waste Characterization

Anyone who generates solid waste is required to determine if that waste is hazardous. The determination may be made by analytical means or by knowledge of the constituents. Chemicals or materials containing compounds listed in the RCRA regulations, or wastes that are hazardous by characteristic, as described in this plan, must be managed

as hazardous waste.

UMKC uses the inventory system to identify chemicals, at purchase, that could require management as hazardous waste upon disposal.

As required for a generator of hazardous waste, the University has determined the quantity of hazardous waste generated on both the Volker campus and the Medical and Hospital Hill campus. Appropriate EPA identification numbers have been obtained for each:

- Volker campus – MOD073133647
- Hospital Hill campus- MOR000509216

6.3.2 Hazardous Waste located in Satellite Accumulation Areas Requirements

A hazardous waste generator may store hazardous waste in an appropriate container at or near the point of generation in what is called a Satellite Accumulation Area. Once the container(s) of hazardous waste is full, EHS recommends the container(s) be removed to the hazardous waste storage area. The hazardous waste request form via the Onsite system is used by generators at UMKC to request pickup of the hazardous wastes in their satellite accumulation areas.

The containers in the satellite accumulation areas at all generator locations must identify the contents of the container. It may be labeled “Hazardous Waste” as well. An example label is included in Appendix C.

6.3.3 Hazardous Waste Storage Requirements

As previously described, the EHS has the responsibility to transport hazardous wastes from the satellite accumulation areas to either the SQG hazardous waste storage area at the Hospital Hill campus or the LQG hazardous waste storage area on the Volker campus. Hazardous waste generated at the Hospital Hill campus may **NOT** be transported to the Volker campus, nor can hazardous waste generated at the Volker campus be transferred to the Hospital Hill campus.

6.3.4 SQG Storage Area

The SQG Hazardous Waste Storage Area is located in the Health Science Building in the loading dock area. The storage area is locked, and the list of emergency contacts is posted near the nearest telephone. The EHS staff and the Hazardous Materials Managers in the area have keys to the room.

The waste must be stored in appropriate and compatible containers and the containers must be in good condition. The containers must be labeled "Hazardous Waste" and the date the wastes are initially placed in the container must be affixed to the label. An example label is provided in Appendix B. The storage area is inspected weekly to ensure that the wastes are appropriately contained, storage time has not been exceeded, and there have been no accidents.

Hazardous wastes transported from satellite accumulation areas to the SQG storage area may be retained on site for no more than 180 days. Special arrangements may be made to store the wastes up to 270 days if the wastes must be transported more than 200 miles from the generation site for disposal.

6.3.5 LQG Hazardous Waste Storage Area

This storage area only serves the Volker campus. Both hazardous wastes and radiation wastes are stored in the building. EHS is responsible for transportation of **ALL** hazardous wastes accumulated in

the satellite accumulation areas to this storage area. The storage area is secure and is kept locked during periods when personnel are not present.

As with the SQG hazardous waste storage area, the LQG hazardous wastes collected by EHS from the satellite accumulation areas must be placed in appropriate and compatible containers, labeled "Hazardous Waste", and the date of initial waste placement must be noted on the label.

Hazardous wastes may **NOT** be stored in the LQG Hazardous Waste Storage Area for more than 90 days. The storage area is inspected weekly to ensure that the wastes are appropriately contained, storage time has not been exceeded, and there have been no incidents.

6.3.6 Hazardous Waste Transporting/Disposal Requirements

Hazardous waste may be transported only by transporters with proper EPA ID numbers, to properly permitted hazardous waste facilities. In order to transport hazardous wastes from the hazardous waste storage areas, the wastes must be properly packaged and labeled in accordance with Department of Transportation (DOT) requirements. Further information may be obtained from the DOT Hazardous Materials Information Line at 202-366-4488.

No hazardous waste may be transported without a "Hazardous Waste Manifest." The manifest is a multiple copy form that is completed at the time the waste is shipped. The generator and the transporter sign the completed form, and the top copy is retained by the generator. The transporter carries the remaining copies to the disposal site where the receiver signs the document. A copy of the document signed by the disposer is then returned to the generator. *Only EHS personnel are authorized to sign a hazardous waste manifest.*

6.3.7 Recordkeeping and Reporting Requirements

All information relative to waste characterization must be retained for as

long as the waste stream continues to be generated.

All hazardous waste manifests (copied, signed, and returned by the disposer of the waste) must be retained on site (in EHS Department files) for 3 years or more from the issue date. If the copy of the manifest signed by the treatment/disposal facility has not been returned within 35 days, then EHS will attempt to locate the hazardous waste by contacting the facility. If the signed manifest has not been returned within 45 days, then EHS will submit an exception report to the EPA – Region VII providing a copy of the first sheet of the manifest and describing the efforts to obtain the signed manifest.

EHS is responsible for submitting a biennial report to the Region VII EPA office. The reports include the generator ID number, information relative to the transporter(s), a description of the quantity of wastes shipped, and a discussion of the measures taken to reduce the volume and toxicity of the hazardous wastes generation and disposal. As with the other records, copies of the biennial reports must be retained for a minimum of 3 years.

6.3.8 Contingency Plan

LQGs are required to prepare a contingency plan outlining how workers will respond to spills or releases of the hazardous wastes in their care. The UMKC Contingency Plan is reviewed and revised by the Director of EHS on an annual basis.

6.3.9 Employee Training

Personnel that have access to the Chemical Storage Building and those that transport the hazardous chemicals from the Satellite Accumulation Areas are required to be trained regarding the relative hazards of the chemicals they will be managing, and the practices and measures in the Facility's contingency plan. Individuals working only in the Satellite Accumulation Areas are required to receive the similar training. The University provides training suitable to both groups as required. Initial training for the Director of EHS, the Sr. Environmental Chemist, and

Hazardous Materials Coordinator will consist of 40 Hour HazWoper training and annual attendance thereafter at a RCRA regulatory review session (40 CFR265.16). See Appendix C for a list of the available training.

APPENDIX A

-UMKC combined list from RCRA P List; RCRA U List; California List; DHS Chemicals of Interest; and Peroxide forming Chemicals
-Characteristics of Hazardous Chemicals: Ignitability, Corrosivity, Reactivity, and Toxicity Characteristic
-Exempted Product Categories List

UMKC Combined Chemicals List

From the RCRA P-List; RCRA U-List, California List, DHS Chemicals of Interest, Peroxide Forming Chemicals, and Chemicals containing Mercury

A2213	Acetophenone	**Aldicarb** ***P-Listed (Mark w/ red P)***
Ac 5,727 (3-Isopropylphenyl N-methylcarbamate) (T) ***P-Listed (Mark w/ red P)***	1-Acetoxypentane (and isomers) (T,I)	**Aldicarb sulfone** ***P-Listed (Mark w/ red P)***
Acetal ***Peroxide-Forming Chemical Class II***	Acetyl benzoyl peroxide (T,I,R)	**Aldrin** ***P-Listed (Mark w/ red P)***
Acetaldehyde (I) *DHS Chemical of Interest*	Acetyl bromide *DHS Chemical of Interest*	Alkyl aluminum chloride (C,I,R)
Acetaldehyde, chloro- ***P-Listed (Mark w/ red P)***	Acetyl chloride (C,R,T) *DHS Chemical of Interest*	Alkyl aluminum compounds (C,I,R)
Acetaldehyde, trichloro-	Acetyl iodide *DHS Chemical of Interest*	**Allyl alcohol** ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*
Acetamide, N-(4-ethoxyphenyl)-	Acetyl peroxide (T,I,R)	Allyl bromide (T,I)
Acetamide, N-9H-fluoren-2- yl-	2-Acetylaminofluorene	Allyl chloride (T,I)
Acetamide, N -(aminothioxomethyl)- ***P-Listed (Mark w/ red P)***	Acetylene *DHS Chemical of Interest*	Allyl chlorocarbonate (T,I)
Acetamide, 2-fluoro- ***P-Listed (Mark w/ red P)***	**1-Acetyl-2-thiourea** ***P-Listed (Mark w/ red P)***	Allyl chloroformate (T,I)
Acetic acid (T,C,I)	Acridine (T)	Allyl trichlorosilane (T,C,I,R) *DHS Chemical of Interest*
Acetic acid, (2,4- dichlorophenoxy)-, salts & esters	**Acrolein** ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*	Allylamine *DHS Chemical of Interest*
Acetic acid ethyl ester (I)	Acrylamide	Allyltrichlorosilane, stabilized *DHS Chemical of Interest*
Acetic acid, fluoro-, sodium salt ***P-Listed (Mark w/ red P)***	Acrylic acid (I) ***Peroxide-Forming Chemical Class I***	Aluminum bromide, anhydrous *DHS Chemical of Interest*
Acetic acid, lead(2+) salt	Acrylonitrile ***Peroxide-Forming Chemical Class I*** *DHS Chemical of Interest*	Aluminum chloride (T,C)
Acetic acid, thallium(1+) salt	Acrylyl chloride *DHS Chemical of Interest*	Aluminum chloride (anhydrous) (T,C,R) *DHS Chemical of Interest*
Acetic acid, (2,4,5- trichlorophenoxy)-	ACTIDIONE (T)	Aluminum fluoride (T,C)
Acetone (I)	Adiponitrile (T)	Aluminum nitrate (T,I)
Acetone cyanohydrin (T)	4-ADP (4-Aminodiphenyl) (T)	**Aluminum phosphide (R,T)** ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*
Acetone cyanohydrin, stabilized *DHS Chemical of Interest*	AFL 1082 (Fluoroacetanilide) (T)	Aluminum (powder) (I) *DHS Chemical of Interest*
Acetonitrile (I,T)	AGALLOL (T)	Aluminum diethyl monochloride (I,R)

4-Amidino-1-(nitrosamino- amidino)-1-tetra- zene (I,R)	Ammonium nitrate (nitrogen concentration of 23% or greater) *DHS Chemical of Interest*	Antimony potassium tartrate (T)
Aminobenzene (T)	Ammonium perchlorate (I,R) *DHS Chemical of Interest*	Antimony sulfate (T,I)
1-Aminobutane (and isomers) (T)	Ammonium permanganate (T,I,R)	Antimony sulfide (T,I,R)
2-Amino-4-chlorotoluene (T)	Ammonium persulfate (I,R)	Antimony trichloride (T,C)
4-Aminodiphenyl (T)	**Ammonium picrate (R)** ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*	Antimony trifluoride (T,C)
Aminoethane (T,I)	Ammonium sulfide (T,C,I,R)	Antimony trioxide (T)
1-Aminohexane (and isomers) (T,I)	**Ammonium vanadate** ***P-Listed (Mark w/ red P)***	Antimony trisulfate (T,I)
Aminomethane (T,I)	n-Amyl acetate (T,I)	Antimony trisulfide (T,I,R)
5-(Aminomethyl)-3- isoxazolol ***P-Listed (Mark w/ red P)***	n-Amyl chloride (T,I)	Aqua regia (T,C,I)
1-Aminopentane (and isomers) (T,I)	n-Amyl mercaptan (T,I)	ARETAN (T)
para-(5-Amino-3-phenyl-1H-1,2,4-triazol-1-yl) - N,N,N',N'-tetramethyl phosphonic diamide (T)	n-Amyl nitrite (T,I)	**Argentate(1-), bis(cyano- C)-, potassium** ***P-Listed (Mark w/ red P)***
2-Aminopropane (T,I)	Amyl trichlorosilane (and isomers) (T,C,R)	Aroclor (Polychlorinated byphenyls)
2-Aminopyridine (T)	n-Amylamine (T,I)	Arsenic (T)
4-Aminopyridine ***P-Listed (Mark w/ red P)***	Amyltrichlorosilane *DHS Chemical of Interest*	**Arsenic acid and salts** ***P-Listed (Mark w/ red P)***
Aminotoluene (ortho,meta,para) (T)	n-Amylene (T,I)	Arsenic compounds (T)
Amitrole	Aniline (I,T)	**Arsenic oxide** ***P-Listed (Mark w/ red P)***
Ammonia (anhydrous) *DHS Chemical of Interest*	ANIMERT V-101 (T)	Arsenic pentaselenide (T)
Ammonia (conc. 20% or greater) *DHS Chemical of Interest*	Anisoyl chloride (T,C)	**Arsenic Pentoxide** ***P-Listed (Mark w/ red P)***
Ammonium arsenate (T)	Anthracene (T)	Arsenic sulfide, Arsenic disulfide (T)
Ammonium bichromate (T,C,I)	Antimony (T)	Arsenic tribromide, Arsenic bromide (T)
Ammonium bifluoride (T,C)	Antimony chloride (T,C)	Arsenic trichloride *DHS Chemical of Interest*
Ammonium chromate (T,I)	Antimony compounds (T)	Arsenic trichloride, Arsenic chloride (T)
Ammonium dichromate (T,C,I)	Antimony fluoride (T,C)	Arsenic triiodide, Arsenic iodide (T)
Ammonium fluoride (T,C)	Antimony oxide (T)	**Arsenic trioxide** ***P-Listed (Mark w/ red P)***
Ammonium hydroxide (T,C)	Antimony pentachloride (T,C,R)	Arsenious acid and salts (T)
Ammonium molybdate (T)	Antimony pentafluoride (T,C,R) *DHS Chemical of Interest*	**Arsenious oxide** ***P-Listed (Mark w/ red P)***
Ammonium nitrate (I,R)	Antimony pentasulfide (T,I)	Arsenous trichloride *DHS Chemical of Interest*

Arsine *DHS Chemical of Interest*	Barium hydroxide (T)	Benzenamine, 4-chloro-2- methyl-, hydrochloride
Arsine, diethyl- ***P-Listed (Mark w/ red P)***	Barium iodide (T)	**Benzenamine, 4-nitro-** ***P-Listed (Mark w/ red P)***
Arsines (T)	Barium manganate (T)	Benzenamine, N,N- dimethyl-4- (phenylazo)-
Arsinic acid, dimethyl-	Barium nitrate (T,I)	Benzenamine, 2-methyl-
Arsonous dichloride, phenyl- ***P-Listed (Mark w/ red P)***	Barium oxide, Barium monoxide (T)	Benzenamine, 4-methyl-
Asbestos (including chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite) (T)	Barium perchlorate (T,I,R)	Benzenamine, 4,4' methylenebis [2-chloro-
Askarel (Polychlorinated byphenyls)	Barium permanganate (T,I,R)	Benzenamine, 2-methyl-, hydrochloride
Aqualin (T,I) ***P-Listed (Mark w/ red P)***	Barium peroxide (T,I,R)	Benzenamine, 2-methyl-5-nitro
Auramine	Barium phosphate (T)	Benzene (I,T)
Azaserine	Barium stearate (T)	**Benzene, (chloromethyl)-** ***P-Listed (Mark w/ red P)***
Aziridine ***P-Listed (Mark w/ red P)***	Barium sulfide (T)	Benzene, 1-bromo-4-phenoxy-
Aziridine, 2-methyl- ***P-Listed (Mark w/ red P)***	Barium sulfite (T)	Benzene, chloro-
Azirino-[2',3':3,4]pyrrolo[1,2-a]indole- 4,7-dione, 6-amino-8-[[(aminocarbonyl)oxy]methyl]- 1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5- methyl-, [1aS-(1aalpha,8beta,8aalpha,8balpha)]-	Battery acid (T,C)	Benzene, 1,2-dichloro
AZODRIN (T)	BAYER 25141 (T)	Benzene, 1,3-dichloro-
BANOL (T)	BAYER 25634 (T)	Benzene, 1,4-dichloro-
Barban	**BCME (bis- (Choromethyl) ether) (T)** ***P-Listed (Mark w/ red P)***	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4- chloro-
Barium (T,I)	Bendiocarb	Benzene, (dichloromethyl)-
Barium azide (I,R) *DHS Chemical of Interest*	Bendiocarb phenol	Benzene, 1,3-diisocyanatomethyl- (R,T)
Barium bromide (T)	Benomyl	Benzene, dimethyl- (I,T)
Barium carbonate (T)	Benz[j]aceanthrylene, 1,2- dihydro-3-methyl-	Benzene hexachloride (Lindane) (T)
Barium chlorate (T,C,I,R)	Benz[c]acridine	Benzene, hexachloro-
Barium chloride (T)	Benzal chloride	Benzene, hexahydro- (I)
Barium chromate (T)	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	Benzene, methyl-
Barium citrate (T)	Benz[a]anthracene	Benzene, 1-methyl-2,4- dinitro-

Barium compounds (soluble) (T)	Benz[a]anthracene, 7,12 dimethyl-	Benzene, 2-methyl-1,3- dinitro-
Barium cyanide ***P-Listed (Mark w/ red P)***	Benzenamine (I,T)	Benzene, (1-methylethyl)- (I)
Barium fluoride (T)	Benzenamine, 4,4' carbonimidoylbis [N,N- dimethyl-	Benzene, nitro-
Barium fluosilicate (T)	**Benzenamine, 4-chloro-** ***P-Listed (Mark w/ red P)***	Benzene, pentachloro-
Benzene, pentachloronitro-	1,3-Benzodioxol-4-ol, 2,2- dimethyl-	Beryllium hydroxide (T)
Benzene, 1,2,4,5-tetrachloro	1,3-Benzodioxole, 5-(1- propenyl)-	Beryllium oxide (T)
Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4- chloro-	1,3-Benzodioxole, 5-(2- propenyl)-	BHC (Lindane) (T)
Benzene, 1,1'-(2,2,2-trichloroethylidense)bis[4-methoxy-	1,3-Benzodioxole, 5-propyl-	BIDRIN (T)
Benzene, (trichloromethyl)-	7-Benzofuranol, 2,3- dihydro-2,2 dimethyl-	2,2'-Bioxirane
Benzene, 1,3,5-trinitro-	**7-Benzofuranol, 2,3- dihydro-2,2-dimethyl-, methylcarbamate** ***P-Listed (Mark w/ red P)***	Biphenyl (T)
Benzeneacetic acid, 4- chloro-alpha-(4- chlorophenyl)-alpha-hydroxy-, ethylester	**Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)- 1,2,3,3a,8,8a-hexahydro- 1,3a,8-trimethylpyrrolo[2,3- b]indol-5-yl methylcarbamate ester (1:1)** ***P-Listed (Mark w/ red P)***	[1,1'-Biphenyl]-4,4'-diamine
Benzenebutanoic acid, 4-[bis(2- chloroethyl)amino]-	Benzo[rst]pentaphene	[1,1'-Biphenyl]-4,4'- diamine, 3,3'-dichloro-
Benzenediamine, ar-methyl-	**2H-1-Benzopyran-2-one, 4-hydroxy-3-(3- oxo-1-phenyl- butyl)-, & salts, when present at concentrations of 0.3% or less** ***P-Listed (Mark w/ red P)***	[1,1'-Biphenyl]-4,4'- diamine, 3,3'-dimethoxy-
2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	Benzo[a]pyrene	[1,1'-Biphenyl]-4,4'- diamine, 3,3'- dimethyl-
1,2-Benzenedicarboxylic acid, dibutyl ester	1,4-Benzoquinone (T)	Bismuth (T,I)
1,2-Benzenedicarboxylic acid, diethyl ester	p-Benzoquinone	Bismuth chromate (T)
1,2-Benzenedicarboxylic acid, dimethyl ester	Benzotrichloride (C,R,T)	**BLACAFUM (T)** ***P-Listed (Mark w/ red P)***
1,2-Benzenedicarboxylic acid, dioctyl ester	Benzotrifluoride (T,I)	Blue vitriol (Copper Sulfate) (T)
1,3-Benzenediol	**Benzyl chloride** ***P-Listed (Mark w/ red P)***	BOMYL (T)
1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)- ***P-Listed (Mark w/ red P)***	Benzoyl peroxide (T,I,R)	Boranes (T,I,R)
Benzeneethanamine, alpha,alpha-dimethyl- ***P-Listed (Mark w/ red P)***	Benzyl bromide (T,C)	Bordeaux arsenites (T)

Benzenephosphorous dichloride (I,R)	Benzyl chloride (T)	Boron tribromide *DHS Chemical of Interest*
Benzenesulfonic acid (T)	Benzyl chlorocarbonate (T,C,R)	Boron trichloride (T,C,R) *DHS Chemical of Interest*
Benzenesulfonic acid chloride (C,R)	Benzyl chloroformate (T,C,R)	Boron trifluoride (T,C,R) *DHS Chemical of Interest*
Benzenesulfonyl chloride (C,R)	**Beryllium powder** ***P-Listed (Mark w/ red P)***	Boron triflouride compound with methyl ether (1:1) *DHS Chemical of Interest*
Benzenethiol ***P-Listed (Mark w/ red P)***	Beryllium chloride (T)	BPL (beta-Propiolactone) (T)
Benzidine and salts	Beryllium compounds (T)	Bromic acid (T)
Benzilic acid	Beryllium copper (T)	Bromine (T,C,I) *DHS Chemical of Interest*
1,2-Benzisothiazol-3(2H)- one, 1,1-dioxide, & salts	Beryllium fluoride (T)	Bromine chloride *DHS Chemical of Interest*
1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate	Beryllium hydride (T,C,I,R)	Bromine cyanide
Bromine pentafluoride (T,C,I,R) *DHS Chemical of Interest*	2-Butene, 1,4-dichloro- (I,T)	Cadmium phosphate (T)
Bromine trifluoride (T,C,I,R) *DHS Chemical of Interest*	3-Butene-2-one (T,I)	Cadmium sulfate (T)
Bromoacetone ***P-Listed (Mark w/ red P)***	2-Butenoic acid, 2-methyl-, 7 [[2,3-dihydroxy- 2-(1- methoxyethyl)-3-methyl-1- oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H- pyrrolizin-1-yl ester, [1S-alpha(Z),7(2S*,3R*),7aalpha]]-	Calcium (I,R)
Bromoform	n-Butyl acetate, 1- Acetoxybutane (and isomers) (T)	Calcium arsenate (T)
Bromomethane (T)	n-Butyl alcohol (I)	Calcium arsenite (T)
4-Bromophenyl phenyl ether	n-Butyl amine (T)	Calcium carbide (C,I,R)
3-Bromopropene (T,I)	Butyl ether (and isomers) (T,I)	Calcium chlorate (I,R)
3-Bromo-1-propyne (T,I)	n-Butyl formate (and isomers) (T)	Calcium chlorite (I)
alpha-Bromotoluene (T,C)	tert-Butyl hydroperoxide (and isomers) (T,I)	Calcium chromate
Bromotrifluorethylene *DHS Chemical of Interest*	n-Butyllithium (and isomers) (T,C,I,R)	**Calcium cyanide** ***P-Listed (Mark w/ red P)***
Brucine ***P-Listed (Mark w/ red P)***	n-Butyl mercaptan (T,I)	Calcium dioxide (C,I)
Butadiene ***Peroxide Forming Chemical Class I***	tert-Butyl peracetate (I,R)	Calcium dithionite *DHS Chemical of Interest*
Butadiene, 1,3- *DHS Chemical of Interest*	tert-Butyl perbenzoate (I,R)	Calcium fluoride (T)
1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	tert-Butyl peroxyacetate (I,R)	Calcium hydride (C,I,R)
n-Butanal (and isomers) (T,I)	tert-Butyl peroxybenzoate (I,R)	Calcium hydrosulfite *DHS Chemical of Interest*
1-Butanamine, N-butyl-N- nitroso-	tert-Butyl peroxypivalate (I,R)	Calcium hydroxide (C)
Butane *DHS Chemical of Interest*	Butlytrichlorosilane *DHS Chemical of Interest*	Calcium hypochlorite (T,C,I,R)

Butene *DHS Chemical of Interest*	n-Butyltrichlorosilane (C,I,R)	Calcium molybdate (T)
1-Butanethiol (and isomers) (T,I)	para-tert-Butyl toluene (T)	Calcium nitrate (I,R)
1,2,4-Butanetriol trinitrate (R)	n-Butyraldehyde (T,I)	Calcium oxide, Lime (C)
1-Butanol and isomers (I)	2-tert-Butyl-5-methyl-4,6-dinitro-phenyl acetate (T)	Calcium oxychlorite (dry) (T,C,I,R)
2-Butanone (I,T)	Cacodylic acid	Calcium permanganate (T,I)
2-Butanone, 3,3-dimethyl-1 (methylthio)-, O [methylamino)carbonyl] oxime ***P-Listed (Mark w/ red P)***	Cadmium (powder) (T,I)	Calcium peroxide (C,I)
2-Butanone, peroxide (R,T)	Cadmium chloride (T)	Calcium phosphide (T,I,R) *DHS Chemical on Interest*
2-Butenal	Cadmium compounds (T)	Calcium resinate (I)
1-Butene *DHS Chemical of Interest*	Cadmium cyanide (T)	1-Caprylene (T,I)
2-Butene *DHS Chemical of Interest*	Cadmium fluoride (T)	Caprylyl peroxide (I)
2-Butene-cis *DHS Chemical of Interest*	Cadmium nitrate (T,I,R)	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester
2-Butene-trans *DHS Chemical of Interest*	Cadmium oxide (T)	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester
Carbamic acid, (3-chlorophenyl)-, 4-chloro-2- butynyl ester	Carbon oxysulfide *DHS Chemical of Interest*	Chlorine (T,C,I,R) *DHS Chemical of Interest*
Carbamic acid, [(dibutylamino)-thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester ***P-Listed (Mark w/ red P)***	Carbon tetrachloride	Chlorine dioxide (T,C,I,R) *DHS Chemical of Interest*
Carbamic acid, dimethyl-, 1-[dimethylamino) carbonyl]- 5-methyl-1H- pyrazol- 3-yl ester ***P-Listed (Mark w/ red P)***	Carbonic acid, dithallium(1+) salt	Chlorine monoxide *DHS Chemical of Interest*
Carbamic acid, dimethyl-, 3-methyl-1- (1methylethyl)-1H-pyrazol-5-yl ester *P-Listed (Mark w/ red P)*	**Carbonic dichloride** ***P-Listed (Mark w/ red P)***	Chlorine pentafluoride (T,C,I,R) *DHS Chemical of Interest*
Carbamic acid, ethyl ester	Carbonic difluoride	Chlorine trifluoride (T,C,I,R) *DHS Chemical of Interest*
Carbamic acid, methyl-, 3-methylphenyl ester ***P-Listed (Mark w/ red P)***	Carbonochloridic acid, methyl ester (I,T)	Chlornaphazin
Carbamic acid, methylnitroso-, ethyl ester	**Carbonyl chloride (I,R)** ***P-Listed (Mark w/ red P)***	**Chloroacetaldehyde** ***P-Listed (Mark w/ red P)***
Carbamic acid, phenyl-, 1-methylethyl ester	Carbonyl fluoride *DHS Chemical of Interest*	Chloracetic acid (T,C)
Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-, dimethyl ester	Carbonyl sulfide *DHS Chemical of Interest*	Chloroacetone (T)
Carbamic chloride, dimethyl-	Carbophenothion (T)	alpha-Chloroacetophenone, Phenyl chloromethyl ketone (T)

Carbamothioic acid, bis(1-methylethyl)-, S- (2,3,3-trichloro-2-propenyl) ester	**Carbosulfan** ***P-Listed (Mark w/ red P)***	Chloroacetyl chloride (T,C,R) *DHS Chemical of Interest*
Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester	CASTRIX (T)	**p-Chloroaniline** ***P-Listed (Mark w/ red P)***
Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters	Caustic potash (T,C)	Chlorobenzene
Carbamothioic acid, bis(1-methylethyl)-, S-(2,3- dichloro-2-propenyl) ester	Caustic soda (T,C)	Chlorobenzilate
Carbanolate (T)	Cellulose nitrate (I,R)	para-Chlorobenzoyl peroxide (I,R)
Carbaryl	**Ceresan liquid (T)** ***Contains Mercury (Mark w/ red P)***	ortho-Chlorobenzylidene malonitrile (T)
Carbendazim	**CEREWET (T)** ***Contains Mercury (Mark w/ Red P)***	Chlorobutadiene ***Peroxide Forming Chemical Class I***
Carbofuran ***P-Listed (Mark w/ red P)***	CHEMFLORM (T)	Chlorochromic anhydride (T,C,I,R)
Carbofuran phenol	Chloral	p-Chloro-m-cresol
Carbolic acid (T,C)	Chloral hydrate (T)	2-Chloro-1-(2,4-dichloro-phenyl) vinyl diethyl phosphate (T)
2-Carbomethoxy-1- methylvinyl dimethyl phosphate (T)	Chlorambucil	2-Chloro-2- diethylcarbamoyl-1- methylvinyl dimethyl phosphate (T)
Carbon bisulfide ***P-Listed (Mark w/ red P)***	Chlordane, alpha & gamma isomers	2-Chloro-4-dimethylamino- 6-methyl- pyrimidine (T)
Carbon disulfide ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*	Chlorecone (T)	2-Chloro-4,5-dimethylphenyl methylcarbamate (T)
Carbon monoxide *DHS Chemical of Interest*	Chlorextol (Polychlorinated byphenyls) (T)	1-Chloro-2,4- dinitrobenzene (I,R)
Carbon oxyfluoride (R,T)	Chlorfenvinphos (T)	exo-3-Chloro-endo-6- cyano-2 norbornanone-0 (methylcarbamoyl) oxime (T)
Chloroethane (T,I)	S-para-Chlorophenyl-2,4,5-trichlorophenyl sulfide (T)	Chromic fluoride (T)
2-Chloroethyl vinyl ether	Chloropicrin (T) *DHS Chemical of Interest*	Chromic hydroxide (T)
tris(2-chloroethyl)amine *DHS Chemical of Interest*	Chloroprene ***Peroxide Forming Chemical Class I***	Chromic oxide (T)
2-Chloroethylchloromethyl- sulfide *DHS Chemical of Interest*	2-Chloropropane (I)	Chromic sulfate (T)
(2-Chloroethyl)ethylamine, bis- *DHS Chemical of Interest*	3-Chloropropene (T,I)	Chromium compounds (T,C,I)
(2-chloroethyl)methylamine, bis- *DHS Chemical of Interest*	1-Chloro-2-propanone (T)	Chromium hydroxide (T)
(2-Chloroethyl)sulfide, bis- *DHS Chemical of Interest*	**3-Chloropropionitrile** ***P-Listed (Mark w/ red P)***	Chromium oxide (T)
(2-choroethylthio)-n-butane, 1,4 bis- *DHS Chemical of Interest*	1-Chloropropylene *DHS Chemical of Interest*	Chromium oxychloride *DHS Chemical of Interest*

(2-chloroethylthio)ethane, 1,2 bis- *DHS Chemical of Interest*	2-Chloropropylene *DHS Chemical of Interest*	Chromium sulfate (T)
(2-chloroethylthioethyl)ether, bis- *DHS Chemical of Interest*	Chloropropylene oxide (T,I)	Chromium trichloride (T)
(2-chloroethylthio)methane, bis- *DHS Chemical of Interest*	Chlorosarin *DHS Chemical of Interest*	Chromium trifluoride (T)
(2- chloroethylthiomethyl) ether, bis- *DHS Chemical of Interest*	Chlorosoman *DHS Chemical of Interest*	Chromium trioxide (T,C,I)
(2-chloroethylthio-n-pentane, 1,5-bis- *DHS Chemical of Interest*	Chlorosulfonic acid (T,C,I,R) *DHS Chemical of Interest*	Chromyl chloride (T,C,I,R)
(2-choroethylthio)-n-propane *DHS Chemical of Interest*	alpha-Chlorotoluene (T)	Chrysene
Chloroform *DHS Chemical of Interest*	Chloro-ortho-toluidine (T)	CMME (Methyl chloromethyl ether) (T,I)
Chloromethane	4-Chloro-o-toluidine, hydrochloride	Cobalt (powder) (T,I)
Chloromethyl ether *DHS Chemical of Interest*	Chlorotrifluoroethylene ***Peroxide Forming Chemical Class I***	Cobalt bromide (T)
Chloromethyl methyl ether *DHS Chemical of Interest*	2-Chloro-1,3,5- trinitrobenzene (I,R)	Cobalt compounds (T)
bis (Chloromethyl) ether (T) ***P-Listed (Mark w/ red P)***	tris(2-chlorovinyl)arsine *DHS Chemical of Interest*	Cobalt chloride (T)
Chloromethyl methyl ether	(2-chlorovinyl)chloroarsine, bis- *DHS Chemical of Interest*	Cobalt nitrate (T,I)
beta-Chloronaphthalene	2-Chlorovinyldichloroarsine *DHS Chemical of Interest*	Cobalt resinate (T,I)
Chloronitrobenzene (ortho,meta,para) (T)	beta-Chlorovinyldichloroarsine (T)	Cobalt sulfate (T)
1-Chloropentane (and isomers) (T,I)	Chromic acid (T,C,I)	Cobaltous bromide (T)
o-Chlorophenol	Chromic acid, calcium salt	Cobaltous chloride (T)
S[[(4-Chlorophenyl) thio]methyl] O,O-diethyl phosphorodithioat (T)	Chromic anhydride (T,C,I)	Cobaltous nitrate (T,I)
1-(o-Chlorophenyl)thio-urea ***P-Listed (Mark w/ red P)***	Chromic chloride (T)	Cobaltous resinate (T,I)
Cobaltous sulfate (T)	Crotonaldehyde *DHS Chemical of Interest*	Cyclohexenyltrichlorosilane (T,C,R)
Cocculus (T)	Crotonaldehyde, (E)- *DHS Chemical of Interest*	Cycloheximide (T)
Collodion (I,R)	Cumene (I) ***Peroxide Forming Chemical Class II***	Cyclohexylamine *DHS Chemical of Interest*
Compound 1080 (T)	Cumene hydroperoxide (T)	**2-Cyclohexyl-4,6- dinitrophenol** ***P-Listed (Mark w/ red P)***
Compound 1836 (Diethyl chlorovinyl phosphate) (T)	**m-Cumenyl methylcarbamate** ***P-Listed (Mark w/ red P)***	Cyclohexyltrichlorosilane (T,C,R) *DHS Chemical of Interest*
Compound 4072 (2-Chloro-1-(2,4- dichloro-phenyl) vinyl diethyl phosphate) (T)	Cupric arsenate (T)	Cyclooctane ***Peroxide Forming Chemical Class II***
Copper acetoarsenite (T)	Cupric arsenite (T)	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-

Copper acetylide (I,R)	Cupric chloride (T)	Cyclopentane (T,I)
Copper arsenate (T)	**Cupric Cyanide** ***P-Listed (Mark w/ red P)***	Cyclopentanol (I)
Copper arsenite (T)	Cupric nitrate (T,I,R)	Cyclopentene (T,I) ***Peroxide Forming Chemical Class II***
Copper chloride (T)	Cupric sulfate (T)	Cyclophosphamide
Copper chlorotetrazole (I,R)	Cupriethylene diamine (T)	Cyclopropane *DHS Chemical of Interest*
Copper compounds (T)	**Cyanides (soluble cyanide salts), not otherwise specified** ***P-Listed (Mark w/ red P)***	Cyclotetramethylene-tetranitramine *DHS Chemical of Interest*
Copper cyanide ***P-Listed (Mark w/ red P)***	Cyanoacetic acid (T)	CYOLAN (T)
Copper nitrate (T,I,R)	**Cyanogen** ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*	2,4-D, salts & esters
Copper sulfate (T)	Cyanogen bromide	DASANIT (T)
Coroxon (T)	**Cyanogen chloride** ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*	Daunomycin
Coumafuryl (T)	Cyanophenphos (T)	DBCP (1,2- Dibromo-3-chloropropane)
Coumatetralyl (T)	O-para-Cyanophenyl-O-ethylphenyl phosphonothioate (T)	DCB (3,3-Dichlorbenzidene and salts)
4-Hydroxy-3-(1,2,3,4- tetrahydro-1-naphthalenyl)- 2H-1-benzopyran-2-one (T)	Cyanuric triazide (I,R)	DDD (1,1-dichloro-2,2- bis(p-chlorophenyl)ethane) (T)
Creosote	Cycloheptane (T,I)	DDNP (Diazodinitrophenol) (I,R)
Cresol (Cresylic acid)	2,5-Cyclohexadiene-1,4- dione	DDT (1,1,1-Trichloro-2,2- bis(chlorophenyl) ethane (T)
o-Cresol	Cyclohexane (I) ***Peroxide Forming Chemical Class II***	DDVP (Dimethyl dichlorovinyl phosphate) (T)
m-Cresol	Cyclohexane, 1,2,3,4,5,6 hexachloro, (1alpha,2alpha,3beta,4alpha,5alpha,6 beta)-	DEAC (Diethylaluminum chloride) (I,R)
p-Cresol	Cyclohexanone (I)	DF *DHS Chemical of Interest*
Crimidine (T)	Cyclohexanone peroxide (I)	Diamine (T,I)
Diazodinitrophenol *DHS Chemical of Interest*	m-Dichlorobenzene	Dicrotophos (T)
Dichlorvos (T)	p-Dichlorobenzene	Dichloro-S-triazine-2,4,6- tri-one (T,I)
Dimethyl dichlorovinyl phosphate (T)	3,3'-Dichlorobenzidine and salts	Dicumyl peroxide (I,T)
Decaborane (T,I,R)	Dibenzoyl peroxide (T,I,R)	Dicyclopentadiene ***Peroxide Forming Chemical Class II***
DECALIN (T)	1,4-Dichloro-2-butene (I,T)	Di-n-dodecyl peroxide (T,C,I,R)
1,1a,3,3a,4,5,5,5a,5b,6-Decachlorooctahydro-1,2, 4- metheno-2H-cyclobuta (cd) pentalen-2-one (T)	Dichlorodifluoromethane	**Dieldrin** ***P-Listed (Mark w/ red P)***
Decahydronaphthalene (T)	Dichlorodimethylsilane (T,C,I,R)	1,2:3,4-Diepoxybutane (I,T)

Dechlorane (T)	1,2-Dichloroethane	2-(Diethoxy- phosphinylimino)-1,3-dithio-lane (T)
DELNAV (T)	1,2-Dichloroethene	Diethyl chlorovinyl phosphate
Demeton (T)	Dichloroether	Diethyl N,N-dimethylphosphoramidate *DHS Chemical of Interest*
Demeton-S-methyl sulfone (T)	Dichloroethylarsine (I,R)	Diethyl Ether ***Peroxide Forming Chemical Class II***
Diacetylene ***Peroxide Forming Chemical Class II***	1,1-Dichloroethylene	Diethyl methylphosphonite *DHS Chemical of Interest*
Diallate	1,2-Dichloroethylene	Diethyl phosphate *DHS Chemical of Interest*
Diaminobenzene (ortho,meta,para) (T)	Dichloroethyl ether	N,N-Diethyl phosphoramidic dichloride *DHS Chemical of Interest*
1,6-Diaminohexane (T)	Dichloroisocyanuric acid (T,I)	Diethyl phthalate
2-Diazo-4,6-dinitrobenzene- 1-oxide (I,R)	Dichloroisopropyl ether	Diethylaluminum chloride (I,R)
Diazodinitrophenol (I,R) *DHS Chemical of Interest*	Dichloromethane	Diethylamine (T,I)
Dibenz[a,h]anthracene	Dichloromethoxy ethane	N,N- (2-diethylamino) ethanethiol *DHS Chemical of Interest*
Dibenzo[a,i]pyrene	**Dichloromethyl ether (T)** ***P-Listed (Mark w/ red P)***	**Diethylarsine** ***P-Listed (Mark w/ red P)***
Diborane (I,R) *DHS Chemical of Interest*	2,4-Dichlorophenol	O,O-Diethyl-S-carboethoxyethyl phosphorodithioate (T)
Diboron hexahydride (I,R)	2,6-Dichlorophenol	Diethyldichlorosilane (T,C,I,R) *DHS Chemical of Interest*
1,2-Dibromo-3- chloropropane	2,4-Dichlorophenoxyacetic acid (2,4-D) (T)	o,o-diethyl S-[2-(dithylamino) ethyl] phosphorothiolate *DHS Chemical of Interest*
1,2-Dibromoethane (T)	**Dichlorophenylarsine** ***P-Listed (Mark w/ red P)***	1,4-Diethylene dioxide (T,I,R)
n-Dibutyl ether (T,I)	1,2-Dichloropropane (T,I)	Diethylene glycol, dicarbamate
Dibutyl phthalate	1,3-Dichloropropene (T,I)	Diethylene glycol dimethyl ether ***Peroxide Forming Chemical Class II***
1,4-Dichlorobenzene	1,3-Dichloropropylene (T,I)	Diethylene glycol dinitrate (I,R) *DHS Chemical of Interest*
o-Dichlorobenzene	Dichlorosilane *DHS Chemical of Interest*	Diethylene triamine (T)

Diethyleneglycol dinitrate *DHS Chemical of Interest*	**O,O-Diethyl O-pyrazinyl phosphorothioate** ***P-Listed (Mark w/ red P)***	**Diisopropylfluoro- phosphate (DFP)** ***P-Listed (Mark w/ red P)***
1,4-Diethyleneoxide	Diethylstilbesterol	N,N-Diisopropyl phosphoramidic dichloride *DHS Chemical of Interest*
O,O-Diethyl S-(N-ethoxycarbonyl-N-methylcarba-moyl-methyl) phosphorodithioate (T)	Diethylzinc (C,I,R)	DIMECRON (T)
O,O-Diethyl S-[2-(ethylthio) ethyl] phosphorodithioate (X) ***P-Listed (Mark w/ red P)***	Difluoroethane *DHS Chemical of Interest*	Dimefox (Tetramethylphosphor- odiamidic fluoride) (T)
O,O-Diethyl-S-[(Ethylthio)methyl] phosphorodithioate (T) ***P-Listed (Mark w/ red P)***	Difluorophosphoric acid (T,C,R)	**1,4,5,8- Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro- 1,4,4a,5,8,8a,- hexahydro-, (1alpha,4alpha,4abeta,5alpha, 8alpha,8 abeta)-1 1 1** ***P-Listed (Mark w/ red P)***
Diethylhexyl phthalate	Diglycidyl ether (T)	**1,4,5,8- Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro- 1,4,4a,5,8,8a- hexahydro-, (1alpha,4alpha,4abeta,5beta, 8beta,8ab eta)-** ***P-Listed (Mark w/ red P)***
N,N'-Diethylhydrazine	Diglyme ***Peroxide Forming Chemical Class II***	**2,7:3,6- Dimethanonaphth[2,3- b]oxirene, 3,4,5,6,9,9- hexachloro- 1a,2,2a,3,6,6a,7,7a- octahydro-, (1aalpha,2beta,2aalpha,3be ta,6beta,6a alpha,7beta, 7aalpha)-** ***P-Listed (Mark w/ red P)***
O,O-Diethyl-S- (isopropylthiomethyl) phosphorodithioate (T)	Dihydrosafrole	**2,7:3,6-Dimethanonaphth [2,3- b]oxirene, 3,4,5,6,9,9- hexachloro- 1a,2,2a,3,6,6a,7,7a- octahydro- , (1aalpha,2beta,2abeta,3alpha ,6alpha,6 abeta,7beta, 7aalpha)-, & metabolites** ***P-Listed (Mark w/ red P)***
O,O-Diethyl S-methyl dithiophosphate	**2,3-Dihydro-2,2-dimethyl- 7-benzofuranyl- methylcarbamate (T)** ***P-Listed (Mark w/ red P)***	**Dimethoate** ***P-Listed (Mark w/ red P)***
O,O-Diethyl-O-[4 (methyl sulfinyl)phenyl] phosphorothioate (T)	N,N-diisopropyl-2- aminoethyl chloride hydrochloride *DHS Chemical of Interest*	3,3'-Dimethoxybenzidine
O,O-Diethyl-o(4 methylumbelliferone) phosphoro-thioate (T)	N,N-diisopropyl-B-aminoethanol *DHS Chemical of Interest*	**Dimethoxystrychnine (T)** ***P-Listed (Mark w/ red P)***
Diethyl-p-nitrophenyl phosphate ***P-Listed (Mark w/ red P)***	N,N-diisopropyl-B-aminoethyl chloride *DHS Chemical of Interest*	Dimethyl ethylphosphonate *DHS Chemical of Interest*
ortho,ortho-Diethyl-ortho-(3- chloro-4-methylcou-marin-7- yl) phosphate (T)	Diisopropylbenzene hydroperoxide (T,I)	Dimethyl methylphosphonate *DHS Chemical of Interest*
O,O-Diethyl-0-para- nitrophenyl phosphate (T)	Diisopropyl ether (I,R) ***Peroxide Forming Chemical Class III***	**Dimethyl nitrosoamine (T)** ***P-Listed (Mark w/ red P)***

O,O-Diethyl-0-para- nitrophenyl phosphorothioate (T) ***P-Listed (Mark w/ red P)***	Diisopropyl peroxydicarbonate (T,C,I,R)	Dimethyl phosphate *DHS Chemical of Interest*
N,N-dimethyl phosphoramidic dichloride *DHS Chemical of Interest*	**O,O-Dimethyl-O-para-nitrophenylphospho- rothioate (T)** ***P-Listed (Mark w/ red P)***	**Dinoseb** ***P-Listed (Mark w/ red P)***
Dimethyl sulfate	**alpha,alpha- Dimethylphenethylamine** ***P-Listed (Mark w/ red P)***	Di-n-octyl phthalate
Dimethylamine (I) *DHS Chemical of Interest*	2,4-Dimethylphenol	Dioxane ***Peroxide Forming Chemical Class II***
Dimethylaminoazobenzene (T)	Dimethlphosphor-amidodichloridate *DHS Chemical of Interest*	1,4-Dioxane ***Peroxide Forming Chemical Class II***
p-Dimethylamino-azobenzene	2,2-Dimethylpropane *DHS Chemical of Interest*	p-Dioxane ***Peroxide Forming Chemical Class II***
4-(Dimethylamino)-3,5-dimethylphenyl methylcarbamate (T) ***P-Listed (Mark w/ red P)***	Dimethyl phthalate	S,S-1,4-dioxane-2,3-diyl bis (O,O-diethyl phosphorodithioate) (T)
3-(Dimethylamino)-1- methyl-3-oxo-1-propenyldimethyl phosphate (T)	**Dimetilan** ***P-Listed (Mark w/ red P)***	Dioxathion (T)
N,N-(2- Dimethylamino)ethanethiol *DHS Chemical of Interest*	Dingu *DHS Chemical of Interest*	Dioxin (T)
Dimethylarsinic acid (T)	2,4-Dinitroaniline (T)	Dipentaerythritol hexanitrate (R)
7,12-Dimethyl- benz[a]anthracene	Dinitrobenzene (ortho, meta, para) (I,R)	Diphenyl (T)
Dimethylbenzene (ortho,meta,para) (I)	Dinitrochlorobenzene (I,R)	Diphenylamine (T)
3,3'-Dimethylbenzidine	**4,6-Dinitro-o-cresol, & salts** ***P-Listed (Mark w/ red P)***	Diphenylamine chloroarsine (T)
alpha,alpha-Dimethylbenzyl hydro-peroxide (T,I,R)	Dinitrogen tetroxide *DHS Chemical of Interest*	Diphenyldichlorosilane (T,C,R) *DHS Chemical of Interest*
alpha,alpha-Dimethylbenzyl- hydro-peroxide (T,I,R)	Dinitroglycoluril *DHS Chemical of Interest*	1,2-Diphenylhydrazine
2,2-Dimethylbutane (T,I)	Dinitrophenol *DHS Chemical of Interest*	Diphenyl-2-hydroxyacetic acid *DHS Chemical of Interest*
3,3-dimethyl-2-butanol *DHS Chemical of Interest*	**2,4-Dinitrophenol** ***P-Listed (Mark w/ red P)***	**Diphosphoramide, octamethyl-** ***P-Listed (Mark w/ red P)***
Dimethylcarbamoyl chloride	Dinitrophenol (2,3-;2,4-;2,6- isomers) (I,R)	**Diphosphoric acid, tetraethyl ester** ***P-Listed (Mark w/ red P)***
Dimethyldichlorosilane (T,C,I,R) *DHS Chemical of Interest*	2,4-Dinitrophenylhydrazine (T,I,R)	Dipicrylamine *DHS Chemical of Interest*
2,5-Dimethylhexane-2,5- Dihydroperoxide (I)	Dinitroresorcinol *DHS Chemical of Interest*	Dipicryl sulfide *DHS Chemical of Interest*
1,1-Dimethylhydrazine *DHS Chemical of Interest*	**2,4-Dinitro-6-sec- butylphenol (X)** ***P-Listed (Mark w/ red P)***	Dipicrylamine (I,R)
1,2-Dimethylhydrazine	Dinitrosobenzene *DHS Chemical of Interest*	Dipropylamine (I)
O,O-Dimethyl-S-4-oxo- 1,2,3-benzotriazin- 3(4H)- ylmethyl phosphorodithioate (T)	2,4-Dinitrotoluene	N,N-Dipropyl phosphoramidic dichloride *DHS Chemical of Interest*
Dimethyl 3- hydroxyglutaconate dimethyl phosphate (T)	2,6-Dinitrotoluene	Dipropyl ether (T,I)
Dimethylnitrobenzene (2,4- ;3,4-; 2,5- isomers) (T)	Dinitrotoluene (2,4-;3,4-;3,5- isomers) (T,I,R)	Di-n-propylnitrosamine

Disulfoton (T) ***P-Listed (Mark w/ red P)***	bis(2,3-Epoxypropyl) ether (T)	Ethanol, 2-ethoxy-
Disulfuryl chloride (T,C,R)	Ethanal (I)	Ethanol, 2,2'- (nitrosoimino)bis-
DI-SYSTON (T) ***P-Listed (Mark w/ red P)***	Ethanamine, N,N-diethyl-	Ethanol, 2,2'-oxybis-, dicarbamate
Dithiobiuret ***P-Listed (Mark w/ red P)***	Ethanamine, N-ethyl-N- nitroso-	Ethanone, 1-phenyl-
1,3-Dithiolane-2-carboxaldehyde, 2,4- dimethyl-, O- [(methylamino)-carbonyl]oxime ***P-Listed (Mark w/ red P)***	Ethane *DHS Chemical of Interest*	Ethene, chloro-
DITHIONE (T) ***P-Listed (Mark w/ red P)***	Ethane, 1,2-dibromo-	Ethene, (2-chloroethoxy)-
Divinyl acetylene ***Peroxide Forming Chemical Class III***	Ethane, 1,1-dichloro-	Ethene, 1,1-dichloro-
Divinyl ether ***Peroxide Forming Chemical Class III***	Ethane, 1,2-dichloro-	Ethene, 1,2-dichloro-, (E)-
DMA (Dimethylamine) (I)	Ethane, hexachloro-	Ethene, tetrachloro-
1,1a,2,2,3,3a,4,5,5,5a,5b,6-Dodecachlorooctahydro- 1,3,4-metheno- 1H-cyclobuta (cd) pentalene (T)	Ethane, 1,1'- [methylenebis(oxy)]bis[2-chloro-	Ethene, trichloro-
Dodecyltrichlorosilane (T,C,R) *DHS Chemical of Interest*	Ethane, 1,1'-oxybis-(I)	Ethion (T)
DOWCO-139 (T)	Ethane, 1,1'-oxybis[2- chloro-	Ethyl acetate (I)
DOWICIDE 7 (T)	Ethane, pentachloro-	Ethyl acetylene *DHS Chemical of Interest*
DOWICIDE I (T)	Ethane, 1,1,1,2-tetrachloro-	Ethyl acrylate (I)
DPA (Diphenylamine) (T)	Ethane, 1,1,2,2-tetrachloro-	Ethyl alcohol (T,I)
DYFONATE (T)	Ethane, 1,1,1-trichloro-	Ethyl butanoate (I)
EI (Ethyleneimine) (T,I,R) ***P-Listed (Mark w/ red P)***	Ethane, 1,1,2-trichloro-	Ethyl butyrate (I)
Endosulfan (T) ***P-Listed (Mark w/ red P)***	1,2-Ethanediamine, N,N- dimethyl-N'-2-pyridinyl-N'- (2-thienylmethyl)-	Ethyl carbamate (urethane)
Endothall (T) ***P-Listed (Mark w/ red P)***	**Ethanedinitrile** ***P-Listed (Mark w/ red P)***	Ethyl chloride (T,I) *DHS Chemical of Interest*
Endothion (T)	Ethanethioamide	Ethyl chlorocarbonate (T,C,I,R)
Endrin (T) ***P-Listed (Mark w/ red P)***	Ethanethiol (T,I,R)	Ethyl chloroformate (T,C,I,R)
Endrin, & metabolites ***P-Listed (Mark w/ red P)***	**Ethanimidothioc acid, 2-(dimethylamino)-N- [[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester** ***P-Listed (Mark w/ red P)***	**Ethyl cyanide** ***P-Listed (Mark w/ red P)***
Epichlorohydrin *DHS Chemical of Interest*	**Ethanimidothioic acid, N-[[(methylamino)carbonyl]o xy]-, methyl ester** ***P-Listed (Mark w/ red P)***	Ethyl ether (I) ***Peroxide Forming Chemical Class II*** *DHS Chemical of Interest*
Epinephrine ***P-Listed (Mark w/ red P)***	Ethanimidothioic acid, N,N'-[thiobis[(methylimino)carbon yloxy]]bis-, dimethyl ester	Ethyl formate (T,I)
EPN (O-Ethyl O-para nitrophenyl phenylphosphonothioate) (T)	Ethanimidothioic acid, 2-(dimethylamino)- N- hydroxy- 2-oxo-, methyl ester	Ethyl mercaptan (T,I,R) *DHS Chemical of Interest*
Epoxyethane	Ethanol (T,I)	Ethyl methacrylate

Ethyl methanesulfonate	Ethylenebisdithio carbamic acid, salts & esters	Fluoroacetic acid and salts (T)
O-Ethyl methyl phosphoryl N,N-diisopropyl thiocholine (T)	Ethylenediamine *DHS Chemical of Interest*	**Fluoroacetic acid, sodium salt** ***P-Listed (Mark w/ red P)***
Ethyl nitrate (I,R)	**Ethyleneimine (T,I,R)** ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*	Fluoroboric acid (T,C)
Ethyl nitrite (I,R) *DHS Chemical of Interest*	Ethylenethiourea	Fluorosulfonic acid (T,C,R)
Ethyl phosphonyl dichloride *DHS Chemical of Interest*	Ethylidene dichloride	Fluosilicic acid (T,C)
Ethyl phosphonyl difluoride *DHS Chemical of Interest*	Ethylphenyldichlorosilane (T,C,R)	Fluosulfonic acid (T,C,R) *DHS Chemical of Interest*
Ethyl propionate (I)	O-Ethyl O-para-nitrophenyl phenylphosphonothioate (T)	Fonofos (T)
Ethyldichloroarsine (I,R)	O-Ethyl-S	Formaldehyde (T,I) *DHS Chemical of Interest*
Ethyldichlorosilane (T,C,I,R)	Ethylphosphonothioic dichloride *DHS Chemical of Interest*	**Formetanate hydrochloride** ***P-Listed (Mark w/ red P)***
O-Ethyl-S,S-dipropyl phosphorodithioate (T)	S-[2-(ethyl-sulfonyl) ethyl] O,O-dimethyl phosphorothioate (T)	Formic acid (C,T)
Ethylamine (T,I) *DHS Chemical of Interest*	Ethyltrichlorosilane (I,R) *DHS Chemical of Interest*	**Formparanate** ***P-Listed (Mark w/ red P)***
Ethylbenzene (T,I)	EXOTHION (T)	FOSTION (T)
Ethyldiethanolamine *DHS Chemical of Interest*	FAC (Prothoate) (T)	Fulminate of mercury (I,R)
o-ethyl-N,N- demthylphosphoramido-cyanidate *DHS Chemical of Interest*	**Famphur** ***P-Listed (Mark w/ red P)***	**Fulminic acid, mercury(2+) salt (R,T)** ***P-Listed (Mark w/ red P)*** *Contains Mercury (Mark w/ red P)*
o-ethyl-o-2- diisopropylaminoethyl methyl phosphonite *DHS Chemical of Interest*	Fensulfothion (T)	FUMARIN (T)
o ethyl-S-2- diisopropylaminoethyl methyl phosphonothiolate *DHS Chemical of Interest*	Ferric arsenate (T)	Fumazone
Ethylene *DHS Chemical of Interest*	Ferric chloride (T,C)	Fuming sulfuric acid (T,C,R)
Ethylene cyanohydrin (I,R)	Ferrous arsenate (T)	**FURADAN (T)** ***P-Listed (Mark w/ red P)***
Ethylene diamine (T)	Fishberry (T)	Furan (I) ***Peroxide Forming Chemical Class II*** *DHS Chemical of Interest*
Ethylene dibromide	Fluoboric acid (T,C)	2-Furancarboxaldehyde (I)
Ethylene dichloride	Fluoranthene	2,5-Furandione
Ethylene glycol dimethyl ether ***Peroxide Forming Chemical Class II***	Fluoride salts (T)	Furan, tetrahydro-(I)
Ethylene glycol dinitrate (R)	**Fluorine** ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*	3-[1-(2-Furanyl)-3-oxobutyl] 1-4-hydroxy-2H-1-benzopyran-2-one (T)
Ethylene glycol monoethyl ether	**Fluoroacetamide** ***P-Listed (Mark w/ red P)***	Furfural (I)
Ethylene oxide (I,T) *DHS Chemical of Interest*	Fluoroacetanilide (T)	Furfuran (I) ***Peroxide Forming Chemical Class II***

Gasoline (I)	n-Heptane (and isomers) (T,I)	Hexolite *DHS Chemical of Interest*
GB (O-Isopropyl methyl phosphoryl fluoride) (T)	1-Heptene (and isomers) (T,I)	Hexotonal *DHS Chemical of Interest*
Germane *DHS Chemical of Interest*	**HETP (Hexaethyl tetraphosphate) (T)** ***P-Listed (Mark w/ red P)***	n-Hexylamine
Germanium tetrafluoride *DHS Chemical of Interest*	**6,7,8,9, 10, 10-Hexachlor-1, 5,5a, 6,9, 9a-hexa-hydro-6,9-methano-2,4,3-benzo- dioxathiepin- 3-oxide (T)** ***P-Listed (Mark w/ red P)***	Hexyltrichlorosilane (T,C,R) *DHS Chemical of Interest*
Glucopyranose, 2-deoxy-2-(3-methyl-3- nitrosoureido)-, D-	Hexachlorobenzene	HMX *DHS Chemical of Interest*
D-Glucose, 2-deoxy-2 [[(methylnitrosoamino) carbonyl]amino]-	Hexachlorobutadiene	HN1 (nitrogen mustard-1) *DHS Chemical of Interest*
Glutaraldehyde (T)	1,2,3,4,5,6- Hexachlorocyclohexane (Lindane) (T)	HN2 (nitrogen mustard-2) *DHS Chemical of Interest*
Glycerolmonolactate trinitrate (R)	Hexachlorocyclopentadiene	HN3 (nitrogen mustard-3) *DHS Chemical of Interest*
Glycidylaldehyde	**1,2,3,4,10,10-Hexachloro- 6,7-epoxy-1,4,4,4a,5,6,7, 8,8a- octahydro-1,4 endo-endo- 5,8 dimethanonaphthalene (T)** ***P-Listed (Mark w/ red P)***	Hydrated lime (C)
Glycol dinitrate (R)	Hexachloroethane	Hydrazine (R,T) *DHS Chemical of Interest*
Glyme ***Peroxide Forming Chemical Class II***	**1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-Hexahydro1,4,5 8-endo exodimethanone** ***P-Listed (Mark w/ red P)***	Hydrazine azide (I,R)
Gold cyanate (R)	Hexachlorophene	Hydrazine (T,I)
Gold fulminate (R)	Hexachloropropene	Hydrazine, 1,2-diethyl-
Guanidine nitrate (I,R)	Hexadecyltrichlorosilane (T,C,R)	Hydrazine, 1,1-dimethyl-
Guanidine, N-methyl-N'-nitro-N- nitroso-	**Hexaethyl tetraphosphate (T)** ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*	Hydrazine, 1,2-dimethyl-
Guanyl nitrosaminoguanylidene hydrazine (R) *DHS Chemical of Interest*	Hexafluoroacetone *DHS Chemical of Interest*	Hydrazine, 1,2-diphenyl-
Guanyl nitrosaminoguanyltetrazene *DHS Chemical of Interest*	Hexafluorophosphoric acid (T,C)	**Hydrazinecarbothioamide** ***P-Listed (Mark w/ red P)***
Guncotton (I,R)	Hexamethylenediamine (T)	**Hydrazine, methyl-** ***P-Listed (Mark w/ red P)***
Guthion (T)	n-Hexane (and isomers) (T,I)	Hydrazoic acid (I,R)
Hafnium (I,T,R)	Hexanitrodiphenyl amine (I,R) *DHS Chemical of Interest*	Hydriodic acid (T,C,R)
Hanane (Tetramethylphosphor-odiamidic fluoride) (T)	Hexanitrodiphenylamine *DHS Chemical of Interest*	Hydrobromic acid (T,C,R)
Heptachlor (T) ***P-Listed (Mark w/ red P)***	Hexanitrostilbene *DHS Chemical of Interest*	Hydrochloric acid (T,C,R)

Hydrocyanic acid (T,I,R) ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*	Iodine pentafluoride *DHS Chemical of Interest*	**3-Isopropylphenyl N-methylcarbamate (T)** ***P-Listed (Mark w/ red P)***
Hydrofluoric acid (C,T,R)	Iron, pentacarbonyl- *DHS Chemical of Interest*	Isopropylphosphonothioic dichloride *DHS Chemical of Interest*
Hydrofluoric acid (conc. 50% or greater) *DHS Chemical of Interest*	Iron arsenate (T)	Isopropylphosphonyl difluoride *DHS Chemical of Interest*
Hydrofluosilicic acid (T,C)	Iron (III) chloride (T,C)	Isosafrole
Hydrogen *DHS Chemical of Interest*	Isobenzan (T)	**3(2H)-Isoxazolone, 5 (aminomethyl)-** ***P-Listed (Mark w/ red P)***
Hydrogen azide (I,R)	1,3-Isobenzofurandione	Kepone (T)
Hydrogen bromide (T,C,R)	Isobutane *DHS Chemical of Interest*	LAH (Lithium aluminum Hydride) (C,I,R)
Hydrogen bromide (anhydrous) *DHS Chemical of Interest*	Isobutyl alcohol (I,T)	**LANNATE (T)** ***P-Listed (Mark w/ red P)***
Hydrogen chloride (T,C,R)	Isobutyronitrile *DHS Chemical of Interest*	Lasiocarpine
Hydrogen chloride (anhydrous) *DHS Chemical of Interest*	**Isodrin** ***P-Listed (Mark w/ red P)***	Lauroyl peroxide (T,C,I,R)
Hydrogen cyanide (T,I,R) ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*	**Isolan** ***P-Listed (Mark w/ red P)***	Lead acetate
Hydrogen fluoride (C,T,R) *DHS Chemical of Interest*	Isooctane (T,I)	Lead azide *DHS Chemical of Interest*
Hydrogen iodide (T,C,R) *DHS Chemical of Interest*	Isooctene (mixture of isomers) (I)	Lead, bis(acetato- 0)tetrahydroxytri-
Hydrogen peroxide (T,C,I,R)	Isopentane (I) *DHS Chemical of Interest*	Lead compounds (T)
Hydrogen peroxide (conc. 35% or greater) *DHS Chemical of Interest*	Isoprene (T,I,R) *DHS Chemical of Interest*	Lead acetate (T)
Hydrogen phosphide ***P-Listed (Mark w/ red P)***	Isopropanol (T,I)	Lead arsenate (T)
Hydrogen selenide (T,I) *DHS Chemical of Interest*	Isopropyl acetate (T,I)	Lead arsenite (T)
Hydrogen sulfide *DHS Chemical of Interest*	Isopropyl alcohol (T,I)	Lead azide (I,R) *DHS Chemical of Interest*
Hydroperoxide, 1-methyl-1- phenylethyl- (R)	Isopropyl benzene	Lead carbonate (T)
3-Hydroxy-N-cis- crotonamide (T)	Isopropyl chloride (I) *DHS Chemical of Interest*	Lead chlorite (I,R)
beta-Hydroxypropionitrile (I,R)	Isopropyl chloroformate *DHS Chemical of Interest*	Lead cyanide (T)
Hypochlorite compounds (T,C,I,R)	Isopropyl ether ***Peroxide Forming Chemical Class III***	Lead 2,4-dinitroresorcinate (I,R)
2-Imidazolidinethione	Isopropyl mercaptan (T,I)	Lead mononitroresorcinate (I,R)
Indeno[1,2,3-cd]pyrene	o-isopropyl methylphosphonochloridate *DHS Chemical of Interest*	Lead nitrate (T,I)
Indium (T)	o-isopropyl methylphosphonofluoridate *DHS Chemical of Interest*	Lead orthoarsenate (T)
Indium compounds (T)	O-Isopropyl methyl phosphoryl fluoride	Lead oxide (T)

	(T)	
Inerteen (Polychlorinated byphenyls) (T)	Isopropyl percarbonate (T,C,I,R)	Lead phosphate
Iodine monochloride (T,C,R)	Isopropylamine (T,I) *DHS Chemical of Interest*	Lead styphnate (I,R) *DHS Chemical of Interest*
Lead subacetate	Magnesium nitrate (I,R)	Medinoterb acetate (T)
Lead trinitroresorcinate (I,R)	Magnesium perchlorate (T,I,R)	MEK (Methyl ethyl ketone) (I,T)
Lewisite (T)	Magnesium peroxide (I)	Melphalan
Lewisite 1 *DHS Chemical of Interest*	Magnesium phosphide *DHS Chemical of Interest*	Memtetrahydrophthalic anhydride (T)
Lewisite 2 *DHS Chemical of Interest*	Maleic anhydride	para-Menthane hydroperoxide (I)
Lewisite 3 *DHS Chemical of Interest*	Maleic hydrazide	Mercuric acetate (T) *Contains Mercury (Mark w/ red P)*
Lime nitrate (I,R)	Malonic nitrile (T)	Mercuric ammonium chloride (T) *Contains Mercury (Mark w/ red P)*
Lindane	Malononitrile	Mercuric benzoate (T) *Contains Mercury (Mark w/ red P)*
Lithium (C,I,R)	Manganese (powder) (I)	Mercuric bromide (T) *Contains Mercury (Mark w/ red P)*
Lithium aluminum hydride (C,I,R)	Manganese acetate (T)	Mercuric chloride (T) *Contains Mercury (Mark w/ red P)*
Lithium amide (C,I,R) *DHS Chemical of Interest*	Manganese arsenate	Mercuric cyanate (I,R) *Contains Mercury (Mark w/ red P)*
Lithium ferrosilicon (I,R)	Manganese bromide (T)	Mercuric dioxysulfate (T) *Contains Mercury (Mark w/ red P)*
Lithium hydride (C,I,R)	Manganese chloride (T)	Mercuric iodide (T) *Contains Mercury (Mark w/ red P)*
Lithium hypochlorite (T,C,I,R)	**Manganese, bis(dimethylcarbamodithioat o S,S')-,** ***P-Listed (Mark w/ red P)***	Mercuric nitrate (T,I) *Contains Mercury (Mark w/ red P)*
Lithium nitride *DHS Chemical of Interest*	**Manganese dimethyldithiocarbamate** ***P-Listed (Mark w/ red P)***	Mercuric oleate (T) *Contains Mercury (Mark w/ red P)*
Lithium peroxide (C,I,R)	Manganese methylcyclopentadienyl tricarbonyl (T)	Mercuric oxide (red and yellow) (T,I) *Contains Mercury (Mark w/ red P)*
Lithium silicon (I,R)	Manganese nitrate (T,I)	Mercuric oxycyanide (I,R) *Contains Mercury (Mark w/ red P)*
London purple, Mixture of arsenic trioxide, aniline, lime, and ferrous oxide (T)	Manganous arsenate (T)	Mercuric-potassium iodide (T) *Contains Mercury (Mark w/ red P)*
Lye (T,C)	Manganous bromide (T)	Mercuric salicylate (T) *Contains Mercury (Mark w/ red P)*
Magnesium (I,R)	Manganous chloride (T)	Mercuric subsulfate (T) *Contains Mercury (Mark w/ red P)*
Magnesium (powder) *DHS Chemical of Interest*	Manganous nitrate (T,I)	Mercuric sulfate (T) *Contains Mercury (Mark w/ red P)*
Magnesium aluminum phosphide *DHS Chemical of Interest*	Mannitol hexanitrate (R) *DHS Chemical of Interest*	Mercuric thiocyanide (T) *Contains Mercury (Mark w/ red P)*
Magnesium arsenate (T)	MARLATE (T)	Mercurol (T) *Contains Mercury (Mark w/ red P)*

Magnesium arsenite (T)	Mayer's reagent (T) *Contains Mercury (Mark w/ red P)*	Mercurous bromide (T) *Contains Mercury (Mark w/ red P*)
Magnesium chlorate (I,R)	MCA (Monochloracetic acid) (T,C)	Mercurous gluconate (T) *Contains Mercury (Mark w/ red P)*
Magnesium diamide *DHS Chemical of Interest*	MECARBAM (T)	Mercurous iodide (T) *Contains Mercury (Mark w/ red P)*
Magnesium dioxide (I)	MDEA *DHS Chemical of Interest*	Mercurous nitrate (I,R) *Contains Mercury (Mark w/ red P)*
Mercurous oxide (T) *Contains Mercury (Mark w/ red P)*	Metal hydrides (I,R)	Methanesulfonic acid, ethyl ester
Mercurous sulfate (T) *Contains Mercury (Mark w/ red P)*	Metal powders (T,I)	Methanethiol (T,I)
Mercury *Contains Mercury (Mark w/ red P)*	Methacrylonitrile (I, T) *DHS Chemical of Interest*	**Methanethiol, trichloro-** ***P-Listed (Mark w/ red P)***
Mercury acetate (T) *Contains Mercury (Mark w/ red P)*	Methanal (T,I)	**Methanimidamide, N,N-dimethyl-N'-[3-[[(methylamino)-arbonyl]oxy]phenyl]-monohydrochloride** ***P-Listed (Mark w/ red P)***
Mercury ammonium chloride (T) *Contains Mercury (Mark w/ red P)*	Methanamine, N-methyl- (I)	**Methanimidamide, N,N- dimethylN'-[2-methyl-4- [[(methylamino)carbonyl]oxy]phenyl]-** ***P-Listed (Mark w/ red P)***
Mercury benzoate (T) *Contains Mercury (Mark w/ red P)*	**Methanamine, N-methyl- N nitroso-** ***P-Listed (Mark w/ red P)***	**6,9-Methano-2,4,3-benzodioxathiepin,6,7,8,9,10, 10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide** ***P-Listed (Mark w/ red P)***
Mercury bromide (T) *Contains Mercury (Mark w/ red P)*	Methane *DHS Chemical of Interest*	**4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro- 3a,4,7,7a-tetrahydro-** ***P-Listed (Mark w/ red P)***
Mercury chloride (T) *Contains Mercury (Mark w/ red P)*	Methane, bromo-	Methanoic acid (T,C)
Mercury compounds (T) *Contains Mercury (Mark w/ red P)*	Methane, chloro- (I, T)	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
Mercury cyanide (I,R) *Contains Mercury (Mark w/ red P)*	Methane, chloromethoxy-	Methanol (I)
Mercury, (acetato- O)phenyl- ***P-Listed (Mark w/ red P)*** *Contains Mercury (Mark w/ red P)*	Methane, dibromo-	Methapyrilene
Mercury bisulfate (T) *Contains Mercury (Mark w/ red P)*	Methane, dichloro-	**Methiocarb** ***P-Listed (Mark w/ red P)***
Mercury fulminate (R,T) ***P-Listed (Mark w/ red P)*** *Contains Mercury (Mark w/ red P) DHS Chemical of Interest*	Methane, dichlorodifluoro-	**Methomyl (T)** ***P-Listed (Mark w/ red P)***
Mercury iodide (T) *Contains Mercury (Mark w/ red P)*	Methane, iodo-	Methoxychlor (T)

Mercury nitrate (T,I) *Contains Mercury (Mark w/ red P)*	**Methane, isocyanato-** ***P-Listed (Mark w/ red P)***	Methoxyethylmercuric chloride (T) *Contains Mercury (Mark w/ red P)*
Mercury nucleate (T) *Contains Mercury (Mark w/ red P)*	**Methane, oxybis[chloro-** ***P-Listed (Mark w/ red P)***	S- [(5-Methoxy-4-oxo-4H- pyran-2-yl). methyl) 0,0- dimethyl phosphorothioate (T)
Mercury oleate (T) *Contains Mercury (Mark w/ red P)*	Methane, tetrachloro-	S-[(5-Methoxy-2-oxo-1,3,4- thiadiazol3 (2H)- yl) methyl] - 0, 0-dimethyl phosphorodithioate (T)
Mercury sulfate (T) *Contains Mercury (Mark w/ red P)*	**Methane, tetranitro- (R)** ***P-Listed (Mark w/ red P)***	Methyl acetate (T,I)
Mercury thiocyanate (T) *Contains Mercury (Mark w/ red P)*	Methane, tribromo-	Methyl acetone (Mixture of acetone, methyl acetate, and methylalcohol) (T,I)
METAISOSYSTOX- SULFON (T)	Methane, trichloro-	Methyl acetylene ***Peroxide Forming Chemical Class II***
Metal carbonyls (T)	Methane, trichlorofluoro-	Methyl alcohol (I)
Methyl bromide (T) *DHS Chemical of Interest*	Methyl phosphonyl dichloride *DHS Chemical of Interest*	Methyldichloroarsine (T)
Methyl butyl ether (and isomers) (T,I)	Methyl phosphonyl difluoride *DHS Chemical of Interest*	Methyldichlorosilane (T,I,R) *DHS Chemical of Interest*
Methyl butyrate (and isomers) (T,I)	Methyl propionate (I)	Methyldiethanolamine *DHS Chemical of Interest*
Methyl chloride (I,T) *DHS Chemical of Interest*	Methyl propyl ketone (and isomers) (T,I)	Methylene bromide
Methyl chlorocarbonate (T,I,R)	Methyl thiocyanate *DHS Chemical of Interest*	Methylene chloride
Methyl chloroform	Methyl sulfate	4,4-Methylene bis(2- chloroaniline) (T)
Methyl chloroformate (T,I,R) *DHS Chemical of Interest*	Methyl valerate (I)	4,4'-Methylenebis(2- chloroaniline)
Methyl chloromethyl ether (T,I)	Methyl vinyl ketone (T,I)	**2-Methyllactonitrile** ***P-Listed (Mark w/ red P)***
Methyl cyclopentane ***Peroxide Forming Chemical Class II***	Methyl yellow (Dimethylaminoazobenzene) (T)	Methylmagnesium bromide (C,I,R)
Methyl ether *DHS Chemical of Interest*	Methylaluminum sesquibromide (I,R)	Methylmagnesium chloride (C,I,R)
Methyl ethyl ether (T,I)	Methylaluminum sesquichloride (I,R)	Methylmagnesium iodide (C,I,R)
Methyl ethyl ketone (I,T)	Methylamine (T,I) *DHS Chemical of Interest*	**2-Methyl-2(methylthio) propionaldehyde- O- (methylcarbamoyl) oxime (T)** ***P-Listed (Mark w/ red P)***
Methyl ethyl ketone peroxide (R,T)	n-Methylaniline (T)	4-Methyl-2-pentanone (I)
Methyl formate (T,I) *DHS Chemical of Interest*	2-Methylaziridine (T,I)	Methylphenyldichlorosilane *DHS Chemical of Interest*
Methyl hydrazine (T,I) ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*	Methylbenzene (T,I)	Methylphosphonothioic dichloride *DHS Chemical of Interest*
Methyl iodide	1-Methylbutadiene (I)	2-Methylpropene *DHS Chemical of Interest*
Methyl isobutyl ketone (I) ***Peroxide Forming Chemical Class II***	2-Methyl-1,3-butadiene (T,I,R)	Methylthiouracil

Methyl isocyanate ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*	2-Methylbutane (I)	Methyltrichlorosilane (T,C,I,R) *DHS Chemical of Interest*
Methyl isopropenyl ketone (T,I)	2-Methyl-1-butene (I) *DHS Chemical of Interest*	**Metolcarb** ***P-Listed (Mark w/ red P)***
Methyl mercaptan (T,I) ***DHS Chemical of Interest***	3-Methyl-1-butene (I) *DHS Chemical of Interest*	Mevinphos (T)
Methyl methacrylate (I,T) ***Peroxide Forming Chemical Class I***	3-Methyl-3-butene-2-one (T,I)	**Mexacarbate** ***P-Listed (Mark w/ red P)***
S-Methyl-N-((methyl- carbamoyl) oxy) thioacetimidate (T) ***P-Listed (Mark w/ red P)***	3-Methylcholanthrene	MINTACOL (T)
Methyl parathion (T) ***P-Listed (Mark w/ red P)***	Methylchlorosilane *DHS Chemical of Interest*	Mirex (T)
Methyl pentanoate (and isomers) (I)	Methylcyclohexane (T,I)	Mitomycin C
MMH (Monomethyl hydrazine (T,I) ***P-Listed (Mark w/ red P)***	2,7-Naphthalenedisulfonic acid, 3,3' [(3,3'dimethyl [1,1'- biphenyl]-4,4'- diyl) bis(azo)bis[5-amino-4- hydroxy],tetrasodium salt	Nitraniline (ortho, meta, para) (I,R)
MNNG (N-methyl-N- nitroso-N'- nitroguanidine)	1-Naphthalenol, methylcarbamate	Nitric acid (T,C,I) *DHS Chemical of Interest*
MOCA (4,4-Methylene bis(2chloroaniline) (T)	1,4-Naphthoquinone	Nitric acid, thallium(1+) salt
5,12-Naphthacenedione, 8- acetyl-10-[(3- amino-2,3,6- trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro- 6,8,11-trihydroxy- 1-methoxy-, (8S-cis)-	alpha-Naphthylamine	**Nitric oxide** ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*
MOCAP (O-Ethyl-S,S- dipropyl phosphorodithioate) (T)	beta-Naphthylamine	Nitro carbo nitrate (I,R)
Molybdenum (powder) (I)	**alpha-Naphthylthiourea** ***P-Listed (Mark w/ red P)***	Nitro urea *DHS Chemical of Interest*
Molybdenum anhydride (X)	4-NBP (4-Nitrobiphenyl) (T)	Nitroaniline (I,R)
Molybdenum trioxide (T)	Nemagon	**p-Nitroaniline** ***P-Listed (Mark w/ red P)***
Molybdic acid and salts (T)	Neohexane	Nitrobenzene (I,T) *DHS Chemical of Interest*
Monochloroacetic acid (T,C)	**NIA 10,242 (T)** ***P-Listed (Mark w/ red P)***	Nitrobenzol (I,T)
Monochloroacetone (T)	NIALATE (T)	5-Nitrobenzotriazol *DHS Chemical of Interest*
Monofluorophosphoric acid (T,C)	Nickel (powder) (T,I)	4-Nitrobiphenyl (T)
Monomethyl hydrazine (T,I) ***P-Listed (Mark w/ red P)***	Nickel acetate (T)	Nitrocalcite (I,R)
Muriatic Acid (T,C,R)	Nickel antimonide (T)	Nitrocellulose (I,R) *DHS Chemical of Interest*
O-Mustard (T) *DHS Chemical of Interest*	Nickel arsenate (T)	Nitrochlorobenzene (T)

1-NA (1-Naphthalenamine)	**Nickel carbonyl (T)** ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*	**Nitrogen dioxide (T,I)** ***P-Listed (Mark w/ red P)***
2-NA (2-Naphthalenamine)	Nickel chloride (T)	Nitrogen mustard (T,C)
Nack (Sodium potassium alloy) (C,I,R)	**Nickel cyanide** ***P-Listed (Mark w/ red P)***	Nitrogen mustard hydrochloride *DHS Chemical of Interest*
Naphtite (I,R)	Nickel nitrate (T,I,R)	**Nitrogen oxide NO** ***P-Listed (Mark w/ red P)***
Naphtha (of petroleum or coal tar origin) (T,I)	Nickel selenide (T)	**Nitrogen oxide** ***P-Listed (Mark w/ red P)***
1-Naphthalenamine	Nickel sulfate (T)	**Nitrogen tetroxide (T,I)** ***P-Listed (Mark w/ red P)***
2-Naphthalenamine	**Nickel tetracarbonyl (T)** ***P-Listed (Mark w/ red P)***	Nitrogen trioxide *DHS Chemical of Interest*
Naphthalenamine, N,N'-bis(2- chloroethyl)-	Nickelous arsenate (T)	**Nitroglycerine (T,I,R)** ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*
Naphthalene	Nickelous chloride (T)	Nitroguanidine *DHS Chemical of Interest*
Naphthalene, 2-chloro-	Nickelous nitrate (X,I,R)	Nitrohydrochloric acid (T,C,I)
1,4-Naphthalenedione	**Nicotine, & salts (T)** ***P-Listed (Mark w/ red P)***	Nitromannite (R) *DHS Chemical of Interest*
Nitromethane *DHS Chemical of Interest*	Octadecyltrichlorosilane (I,R) *DHS Chemical of Interest*	**Parathion (T)** ***P-Listed (Mark w/ red P)***
Nitrophenol (ortho, meta, para) (T)	**Octamethylpyrophosphor- amide** ***P-Listed (Mark w/ red P)***	Paris green (Copper acetoarsenite) (T)
2-Nitropropane (I,T)	n-Octane (and isomers) (T,I)	PCB (Polychlorinated biphenyls)
N-Nitrosodi-n-butylamine	1-Octene (T,I)	PCP (Pentachlorophenol) (T)
N-Nitrosodiethanolamine	Octolite *DHS Chemical of Interest*	PENSAL (T)
N-Nitrosodiethylamine	Octonal *DHS Chemical of Interest*	Pentaborane (T,I,R)
N-Nitrosodimethylamine (T) ***P-Listed (Mark w/ red P)***	Octyl peroxide (I)	Pentachlorobenzene
N-Nitroso-N-ethylurea	Octyltrichlorosilane (I,R) *DHS Chemical of Interest*	Pentachloroethane
Nitrosoguanidine (R)	Oil of vitriol (Sulfuric Acid) (T,C)	Pentachloronitrobenzene (PCNB)
N-Nitroso-N-methylurea	Oleum *DHS Chemical of Interest*	Pentachlorophenol (T)
N-Nitroso-N- methylurethane	**OMPA (Octamethyl pyrophosphoramide) (T)** ***P-Listed (Mark w/ red P)***	1,3-Pentadiene *DHS Chemical of Interest*
N-Nitrosomethyl- vinylamine ***P-Listed (Mark w/ red P)***	Orthozenol (T)	Pentaerythrite tetranitrate (R) *DHS Chemical of Interest*
N-Nitrosopiperidine	Osmium compounds (T)	Pentaerythritol tetranitrate (R)
N-Nitrosopyrrolidine	**Osmium oxide** ***P-Listed (Mark w/ red P)***	Pentafluoro-2- (trifluoromethyl)-1 propene *DHS Chemical of Interest*
Nitrostarch (I,R) *DHS Chemical of Interest*	**Osmium Tetroxide** ***P-Listed (Mark w/ red P)***	Pentanol, 4-methyl-

Nitrosyl chloride *DHS Chemical of Interest*	**7-Oxa- bicyclo[2.2.1]heptane-2,3-dicarboxylic acid** ***P-Listed (Mark w/ red P)***	1,3-Pentadiene (I) *DHS Chemical of Interest*
5-Nitro-o-toluidine	Oxalic acid (T)	n-Pentanal (and isomers) (T,I)
Nitrotriazolone *DHS Chemical of Interest*	**Oxamyl** ***P-Listed (Mark w/ red P)***	Pentane *DHS Chemical of Interest*
Nitroxylene (T)	1,2-Oxathiolane, 2,2-dioxide	1-Pentane *DHS Chemical of Interest*
Nitroxylol (T)	2H-1,3,2-Oxazaphosphorin-2- amine, N,N-bis(2- chloroethyl)tetrahydro-, 2-oxide	n-Pentane (and isomers) (T,I)
1-Nonene (T,I)	Oxirane (I,T)	1-Pentanethiol (and isomers) (T,I)
1-Nonylene (and isomers) (T,I)	Oxiranecarboxyaldehyde	2-Pentanone,
Nonyltrichlorosilane (I,R) *DHS Chemical of Interest*	Oxirane, (chloromethyl)-2 Paraldehyde	1-Pentene (and isomers) (T,I) *DHS Chemical of Interest*
OCMB (ortho- Chlorobenzylidene malonitrile) (T)	Oxygen difluoride (T,C,R) *DHS Chemical of Interest*	2-Pentene, (E)- *DHS Chemical of Interest*
1,3,4,5,6,7,8,8-Octachloro- 1,3,3a,4, 7,7a-hexahydro-4,7-methanoisobenzofuran (T)	Para-oxon (T)	2-Pentene, (Z)- *DHS Chemical of Interest*
1,2,4,5,6,7,8,8-Octachloro-4,7-methano- 3a,4,7,7a-tetra- hydro- indane; (T)	Paramenthane hydroperoxide (I)	Pentolite *DHS Chemical of Interest*
n-Pentyl nitrite (and isomers) (T,I)	Phenol, (3,5-dimethyl-4- (methylthio)-, methylcarbamate P-Listed (Mark w/ red P)	Phenylphenol (T)
Peracetic acid (T,C,I,R) DHS Chemical of Interest	Phenol, 2,4-dinitro- P-Listed (Mark w/ red P)	Phenylthiourea P-Listed (Mark w/ red P)
Perchloric acid (T,C,I,R)	Phenol, methyl-	Phenyltrichorosilane (I,R) DHS Chemical of Interest
Perchloroethylene (T)	Phenol, 2-methyl-4,6- dinitro-, & salts P-Listed (Mark w/ red P)	Phorate (T) P-Listed (Mark w/ red P)
Perchloromethyl mercaptan (T) DHS Chemical of Interest	Phenol, 2,2'- methylenebis[3,4,6-trichloro-	PHOSDRIN (T)
Perchloromethylmercaptan DHS Chemical of Interest	Phenol, 2-(1-methylethoxy) methylcarbamate	Phosfolan (T)
Perchloryl fluoride (T,C,I) DHS Chemical of Interest	Phenol, 3-(1-methylethyl)-, methyl carbamate P-Listed (Mark w/ red P)	Phosgene (I,R) P-Listed (Mark w/ red P) DHS Chemical of Interest
Peroxyacetic acid (T,C,I,R)	Phenol, 3-methyl-5-(1- methylethyl)-, methyl carbamate P-Listed (Mark w/ red P)	Phosphamidon (T)
PETN (Pentaerythrite tetranitrate) DHS Chemical of Interest	Phenol, 2-(1-methylpropyl)- 4,6-dinitro- P- Listed (Mark w/ red P)	Phosphine (T,I) P-Listed (Mark w/ red P) DHS Chemical of Interest

Petroleum ether (T,I)	Phenol, 4-nitro-	Phosphoric acid (C)
Petroleum naphtha (T,I)	Phenol, pentachloro-	Phosphoric acid, diethyl 4- nitrophenyl ester P-Listed (Mark w/ red P)
Pextox 14 (Tetramethylphosphor-odiamidic fluoride) (T)	Phenol, 2,3,4,6-tetrachloro-	Phosphoric acid, lead(2+) salt (2:3)
Phenacetin	Phenol, 2,4,5-trichloro-	Phosphoric anhydride (C,I)
Phenarsazine chloride (T)	Phenol, 2,4,6-trichloro-	Phosphoric chloride (T,C,I,R)
Phenol (T,C)	Phenol, 2,4,6-trinitro-, ammonium salt (R) P-Listed (Mark w/ red P)	Phosphoric sulfide (T,C,I,R)
Phenol, 2-chloro-	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester P-Listed (Mark w/ red P)
Phenol, 4-chloro-3-methyl-	N-Phenylaniline (T)	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester P-Listed (Mark w/ red P)
Phenol, 2-cyclohexyl-4,6- dinitro- P-Listed (Mark w/ red P)	Phenylbenzene (T)	Phosphorodithioic acid, O,O-diethyl S-methyl ester
Phenol, 2,4-dichloro-	Phenyldichloroarsine (T)	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester P-Listed (Mark w/ red P)
Phenol, 2,6-dichloro-	Phenylenediamine (T)	Phosphorofluoridic acid, bis(1-methylethyl) ester P-Listed (Mark w/ red P)
Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-(E)	Phenylethane (T,I)	Phosphorothioic acid, O,O- diethyl O-(4-nitrophenyl) ester P-Listed (Mark w/ red P)
Phenol, 2,4-dimethyl-	Phenylhydrazine hydrochloride (T)	Phosphorothioic acid, O,O- diethyl O-pyrazinyl ester P-Listed (Mark w/ red P)
Phenol, 4-(dimethylamino) 3,5-dimethyl-, methylcarbamate (ester) P-Listed (Mark w/ red P)	Phenylmercury acetate P-Listed (Mark w/ red P) Contains Mercury (Mark w/ red P)	Phosphorothioic acid,O-[4- [(dimethylamino) sulfonyl]phenyl] O,O- dimethyl ester P-Listed (Mark w/ red P)

Phosphorothioic acid, O,O,- dimethyl O-(4 nitrophenyl) ester ***P-Listed (Mark w/ red P)***	Picryl chloride (I,R)	Potassium dichromate (T,C,I)
Phosphorus *DHS Chemical of Interest*	Piperidine *DHS Chemical of Interest*	Potassium fluoride (T)
Phosphorus (amorphous, red) (T,I,R) *DHS Chemical of Interest*	Piperidine, 1-nitroso-	Potassium hydride (C,I,R)
Phosphorus (white or yellow) (T,I,R) *DHS Chemical of Interest*	o-pinacolyl methylphosphonochloridate *DHS Chemical of Interest*	Potassium hydroxide (T,C)
Phosphorus oxybromide (T,C,R)	o-pinacolyl methylphosphonofluoridate *DHS Chemical of Interest*	Potassium nitrate (I,R) *DHS Chemical of Interest*
Phosphorus oxychloride (T,C,R) *DHS Chemical of Interest*	Platinum compounds (T)	Potassium nitrite (I,R)
Phosphorus pentabromide *DHS Chemical of Interest*	**Plumbane, tetraethyl-** ***P-Listed (Mark w/ red P)***	Potassium oxalate (T)
Phosphorus pentachloride (T,C,I,R) *DHS Chemical of Interest*	Polychlorinated biphenyls	Potassium perchlorate (T,I,R) *DHS Chemical of Interest*
Phosphorus pentasulfide (T,C,I,R) *DHS Chemical of Interest*	**Polychlorocamphene (T)** ***P-Listed (Mark w/ red P)***	Potassium permanganate (T,C,I) *DHS Chemical of Interest*
Phosphorus pentoxide (C,I)	Polyvinyl nitrate (I,R)	Potassium peroxide (C,I,R)
Phosphorus sesquisulfide (T,C,I,R)	Potasan (T)	Potassium phosphide *DHS Chemical of Interest*
Phosphorus sulfide (R)	Potassium (C,I,R)	**Potassium silver cyanide** ***P-Listed (Mark w/ red P)***
Phosphorus tribromide (T,C,R)	Potassium (metal) ***Peroxide Forming Chemical Class III***	Potassium sulfide (T,I)
Phosphorus trichloride (T,C,R) *DHS Chemical of Interest*	Potassium acid fluoride (T,C)	**Promecarb** ***P-Listed (Mark w/ red P)***
Phosphoryl bromide (T,C,R)	Potassium acid oxalate (T)	Pronamide
Phosphoryl chloride (T,C,R)	Potassium amide ***Peroxide Forming Chemical Class III***	Propadiene *DHS Chemical of Interest*
PHOSTOXIN (R,T) ***P-Listed (Mark w/ red P)***	Potassium arsenate (T)	**Propanal, 2-methyl-2- (methylthio)-, O-[(methylamino)carbonyl]oxi me** ***P-Listed (Mark w/ red P)***
Phthalic anhydride	Potassium arsenite (T)	**Propanal, 2-methyl-2- (methyl-sulfonyl)-, O- [(methylamino)carbonyl] oxime** ***P-Listed (Mark w/ red P)***
Physostigmine ***P-Listed (Mark w/ red P)***	Potassium bichromate (T,C,I)	1-Propanamine (I,T)
Physostigmine salicylate ***P-Listed (Mark w/ red P)***	Potassium bifluoride (T,C)	1-Propanamine, N-nitroso- N-propyl-
2-Picoline	Potassium binoxalate (T)	1-Propanamine, N-propyl- (I)
Picramide (I,R)	Potassium bromate (T,I)	Propane *DHS Chemical of Interest*
Picric acid (I,R)	Potassium chlorate *DHS Chemical of Interest*	Propane, 1,2-dibromo-3- chloro-
Picrite *DHS Chemical of Interest*	**Potassium cyanide** ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*	Propane, 1,2-dichloro-
Picrotoxin (T)	Potassium dichloroisocyanurate (T,I)	Propane, 2-nitro- (I,T)

Propane, 2,2'-oxybis[2- chloro-	2-Propenenitrile	Propylphosphonyl difluoride *DHS Chemical of Interest*
1,3-Propane sultone	2-Propenenitrile, 2-methyl- (I,T)	Propyltrichlorosilane *DHS Chemical of Interest*
Propanedinitrile	**Propen-1-ol** ***P-Listed (Mark w/ red P)***	n-Propyltrichlorosilane (T,C,I,R) *DHS Chemical of Interest*
Propanenitrile ***P-Listed (Mark w/ red P)***	2-Propenoic acid (I)	**Propyn-1-ol** ***P-Listed (Mark w/ red P)***
Propanenitrile, 3-chloro- ***P-Listed (Mark w/ red P)***	2-Propenoic acid, ethyl ester (I)	Propyne *DHS Chemical of Interest*
Propanenitrile, 2- hydroxy-2-methyl- ***P-Listed (Mark w/ red P)***	2-Propenoic acid, 2-methyl-, ethyl ester	Prosulfocarb
1-Propanethiol (T,I)	2-Propenoic acid, 2-methyl-, methyl ester (I,T)	Prothoate (T)
2-Propanethiol (T,I)	**2-Propen-l-ol** ***P-Listed (Mark w/ red P)***	Pyranol (Polychlorinated byphenyls) (T)
1,2,3-Propanetriol, trinitrate (R) ***P-Listed (Mark w/ red P)***	Propham	3,6-Pyridazinedione, 1,2- dihydro-
Propanoic acid (T,C,I)	beta-Propiolactone (T)	**Pyridinamine** ***P-Listed (Mark w/ red P)***
Propanoic acid, 2-(2,4,5-trichlorophenoxy)-	Propionaldehyde (T,I)	Pyridine
Propanal (T,I)	Propionic acid (T,C,I)	Pyridine, 2-methyl-
1-Propanol (T,I)	Propionitrile *DHS Chemical of Interest*	**Pyridine, 3-(1-methyl-2- pyrrolidinyl)-, (S)- & salts** ***P-Listed (Mark w/ red P)***
2-Propanol (T,I)	Propoxur	**beta-pyridyl-alpha-N- methyl pyrrolidine (T)** ***P-Listed (Mark w/ red P)***
1-Propanol, 2,3-dibromo-, phosphate (3:1)	n-Propyl acetate (T,I)	2,4-(1H,3H)- Pyrimidinedione, 5-[bis(2- chloroethyl)amino]-
1-Propanol, 2-methyl- (I,T)	n-Propyl alcohol (T,I)	4(1H)-Pyrimidinone, 2,3- dihydro-6-methyl-2-thioxo-
Propanone (I)	Propyl chloroformate *DHS Chemical of Interest*	Pyrosulfuryl chloride (T,C,R)
2-Propanone (I)	n-Propyl formate (T,I)	Pyroxylin (I,R)
2-Propanone, 1-bromo- ***P-Listed (Mark w/ red P)***	n-Propyl mercaptan	Pyroxylin (nitrocellulose) in ether and alcohol (I,R)
Propargyl alcohol ***P-Listed (Mark w/ red P)***	n-Propylamine (and isomers) (I,T)	Pyrrolidine, 1-nitroso-
Propargyl bromide (T,I)	Propylene *DHS Chemical of Interest*	**Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro- 1,3a,8-trimethyl methylcarbamate (ester), (3aS-cis)-** ***P-Listed (Mark w/ red P)***
Propenal ***P-Listed (Mark w/ red P)***	Propylene dichloride (T,I)	QL *DHS Chemical of Interest*
2-Propenamide	Propylene oxide (T,I) *DHS Chemical of Interest*	Quinone (T)
1-Propene, 1,3-dichloro-	Propyleneimine (T,I) *DHS Chemical of Interest*	Quinuclidine-3-ol *DHS Chemical of Interest*
1-Propene, 1,1,2,3,3,3- hexachloro-	**2-Propylenimine** ***P-Listed (Mark w/ red P)***	3-Quinuclidinyl benzilate (BZ) *DHS Chemical of Interest*

Raney nickel (I)	Silicon tetrafluoride *DHS Chemical of Interest*	Sodium dichloroisocyanurate (I)
RACUMIN 57 (4-Hydroxy- 3-(1,2,3,4-tetrahydro-1- naphthalenyl)-2H-1- benzopyran-2-one) (T)	Silver acetylide (I,R)	Sodium dichromate (T,C,I)
RATOX (T) ***P-Listed (Mark w/ red P)***	Silver azide (I,R)	Sodium dimethylarsenate (T)
Reserpine	Silver compounds (T)	Sodium dinitro-o-cresolate *DHS Chemical of Interest*
Resorcinol	**Silver cyanide** ***P-Listed (Mark w/ red P)***	Sodium dithionite *DHS Chemical of Interest*
RDX and HMX mixtures *DHS Chemical of Interest*	Silver nitrate (T)	Sodium fluoride (T)
Saccharin, & salts	Silver styphnate (I,R)	Sodium hydride (T,C,I,R)
Safrole	Silver tetrazene (I,R)	Sodium hydrosulfide (T,I)
Salicylated mercury (T) *Contains Mercury (Mark w/ red P)*	Silver trinitroresorcinate (I,R)	Sodium hydrosulfite *DHS Chemical of Interest*
Saltpeter (I,R)	Silvex (2,4,5-TP)	Sodium hydroxide (T,C)
Sarin *DHS Chemical of Interest*	Soda niter (T,I,R)	Sodium hypochlorite (T,I,R)
Schradan (T) ***P-Listed (Mark w/ red P)***	Sodamide (C,I,R) ***Peroxide Forming Chemical Class III***	Sodium hyposulfite (I)
Selenious acid	Sodium (C,I,R)	Sodium methylate (C,I,R)
Selenious acid, dithallium(1+) salt ***P-Listed (Mark w/ red P)***	Sodium acid fluoride (T,C)	Sodium methoxide (C,I,R)
Selenium (T)	Sodium aluminate (C)	Sodium molybdate (T)
Selenium compounds (T)	Sodium aluminum hydride (C,I,R)	Sodium monoxide (T,C)
Selenium dioxide	Sodium amide (C,I,R) ***Peroxide Forming Chemical Class III***	Sodium nitrate (T,I,R) *DHS Chemical of Interest*
Selenium fluoride (T)	Sodium arsenate (T)	Sodium nitrite (T,I,R)
Selenium hexafluoride *DHS Chemical of Interest*	Sodium arsenite (T)	Sodium oxide (T,C)
Selenium sulfide	**Sodium azide** ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*	Sodium perchlorate (T,I,R)
Selenourea ***P-Listed (Mark w/ red P)***	Sodium bichromate (T,C,I)	Sodium permanganate (T,I)
Selenous acid (T)	Sodium bifluoride (T,C)	Sodium peroxide (T,I,R)
Selenious acid and salts (T)	Sodium bromate (T,I)	Sodium phosphide *DHS Chemical of Interest*
L-Serine, diazoacetate (ester)	Sodium cacodylate (T)	Sodium picramate (T,I,R) *DHS Chemical of Interest*
Sesquimustard *DHS Chemical of Interest*	Sodium carbonate peroxide (I)	Sodium potassium alloy (C,I,R)
Silane *DHS Chemical of Interest*	Sodium chlorate (T,I) *DHS Chemical of Interest*	Sodium selenate (T)
Silicochloroform (T,C,I,R)	Sodium chlorite (T,I)	Sodium sulfide (T,I)
Silicon chloride (T,C,R)	Sodium chromate (T,C)	Sodium sulfocyanate (T)
Silicon tetrachloride (T,C,R) *DHS Chemical of Interest*	**Sodium cyanide** ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*	Sodium thiocyanate (T)

Soman *DHS Chemical of Interest*	Sulfur tetrafluoride *DHS Chemical of Interest*	sym-Tetrachloroethane (T)
Stannic chloride (T,C)	Sulfur trioxide (T,C,I) *DHS Chemical of Interest*	1,1,1,2-Tetrachloroethane
Starch nitrate (I,R)	Sulfuric acid (T,C)	1,1,2,2-Tetrachloroethane
Stibine *DHS Chemical of Interest*	Sulfuric acid, fuming *DHS Chemical of Interest*	Tetrachloroethylene (T)
Streptozotocin	Sulfuric anhydride (T,C,I)	Tetrachloromethane
Strontium arsenate (T)	Sulfuric acid, dimethyl ester	2,3,4,6-Tetrachlorophenol
Strontium dioxide (I,R)	**Sulfuric acid, dithallium(1+) salt** ***P-Listed (Mark w/ red P)***	**Tetraethyl lead** ***P-Listed (Mark w/ red P)***
Strontium nitrate (T,I,R)	Sulfurous acid (T,C)	**Tetraethyl pyrophosphate** ***P-Listed (Mark w/ red P)***
Strontium peroxide (I,R)	Sulfuryl chloride (T,C,R) *DHS Chemical of Interest*	**Tetraethyldithiopyro- phosphate** ***P-Listed (Mark w/ red P)***
Strontium phosphide *DHS Chemical of Interest*	Sulfuryl fluoride (T,C,R) *DHS Chemical of Interest*	O,O,O',O'-Tetraethyl-S,S-methylenediphos- phorodithioate (T)
Strychnidin-10-one, & salts ***P-Listed (Mark w/ red P)***	Sulfonyl fluoride (T,C,R)	Tetrafluoroethylene ***Peroxide Forming Chemical Class I*** *DHS Chemical of Interest*
Strychnidin-10-one, 2,3- dimethoxy- ***P-Listed (Mark w/ red P)***	SUPRACIDE (T)	Tetrahydrofuran (T,I) ***Peroxide Forming Chemical Class II***
Strychnine, & salts ***P-Listed (Mark w/ red P)***	SURECIDE (T)	Tetrahydronaphthalene (T) ***Peroxide Forming Chemical Class II***
Styphnic acid (I,R)	SYSTOX (T)	Tetrahydrophthalic anhydride (T)
Styrene (T,I) ***Peroxide Forming Chemical Class I***	2,4,5-T (2,4,5- Trichlorophenoxyacetic acid) (T)	TETRALIN (T)
Succinic acid peroxide (T,I)	Tabun *DHS Chemical of Interest*	Tetramethyl lead (T,I) *DHS Chemical of Interest*
Sulfide salts (soluble) (X)	TCDD (2,3,7,8- Tetrachlorodibenzo-para- dioxin) (T)	Tetramethyl succinonitrile (T)
Sulfonyl chloride (T,C,R)	TDI (Toluene-2,4- diisocyanate) (I,R)	Tetramethyllead *DHS Chemical of Interest*
Sulfotepp (T) ***P-Listed (Mark w/ red P)***	**TEDP (Tetraethyl dithiopyrophosphate) (T)** ***P-Listed (Mark w/ red P)***	Tetramethylsilane *DHS Chemical of Interest*
Sulfur chloride (T,C,R)	TEL (Tetraethyl lead) (and other organic lead) (T,I)	Tetramethylphosphor-odiamidic fluoride (T)
Sulfur dichloride *DHS Chemical of Interest*	Tellurium hexafluoride (T,C) *DHS Chemical of Interest*	O,O-Tetramethylthiuram monosulfide (T)
Sulfur dioxide, anhydrous *DHS Chemical of Interest*	TELODRIN (T)	Tetranitroaniline *DHS Chemical of Interest*
Sulfur monochloride (T,C,R) *DHS Chemical of Interest*	**TEMIK (T)** ***P-Listed (Mark w/ red P)***	**Tetranitromethane (R)** ***P-Listed (Mark w/ red P)*** *DHS Chemical of Interest*
Sulfur mustard (T,C,R) *DHS Chemical of Interest*	TEPA (Triethylenephosphoramide) (T)	**Tetraphosphoric acid, hexaethyl ester** ***P-Listed (Mark w/ red P)***
Sulfur oxychloride (T,C,R)	TEPP (Tetraethyl pyrophosphate) (T)	Tetraphosphorus trisulfide (T,C,I,R)
Sulfur pentafluoride (T,C)	1,2,4,5-Tetrachlorobenzene	Tetrasul (T)
Sulfur phosphide (R)	2,3,7,8-Tetrachlorodibenzo- para-dioxin (T)	Tetrazene (I,R) *DHS Chemical of Interest*

Tetrazol-1-acetic acid *DHS Chemical of Interest*	Thionazin	Toluene (T,I)
1H-Tetrazole *DHS Chemical of Interest*	Thionyl chloride (T,C,R) *DHS Chemical of Interest*	Toluene diisocyanate (R,T)
THF (Tetrahydrofuran) (T,I) ***Peroxide Forming Chemical Class II***	Thiopbosgene (T,C,R)	Toluenediamine
Thallic oxide ***P-Listed (Mark w/ red P)***	Thioperoxydicarbonic diamide, tetramethyl-	Toluene diisocyanate (unspecified isomer) *DHS Chemical of Interest*
Thallium (T)	Thiophanate-methyl	Toluene-2,4-diisocyanate (I,R) *DHS Chemical of Interest*
Thallium(I) acetate	**Thiophenol** ***P-Listed (Mark w/ red P)***	Toluene- 2,6-diisocyanate *DHS Chemical of Interest*
Thallium(I) carbonate	Thiophosphoryl chloride (T,C,R)	Toluidine (T)
Thallium chloride	**Thiosemicarbazide** ***P-Listed (Mark w/ red P)***	o-Toluidine
Thallium(I) chloride	Thiourea	p-Toluidine
Thallium compounds (T)	**Thiourea, (2- chlorophenyl)-** ***P-Listed (Mark w/ red P)***	o-Toluidine hydrochloride
Thallium(I) nitrate	**Thiourea, 1-naphthalenyl-** ***P-Listed (Mark w/ red P)***	Torpex *DHS Chemical of Interest*
Thallium oxide ***P-Listed (Mark w/ red P)***	**Thiourea, phenyl-** ***P-Listed (Mark w/ red P)***	**Toxaphene (T)** ***P-Listed (Mark w/ red P)***
Thallium(I) selenite ***P-Listed (Mark w/ red P)***	Thiram	TRANID (T)
Thallium(I) sulfate ***P-Listed (Mark w/ red P)***	Thorium (powder) (I)	Triallate
Thallous sulfate (T) ***P-Listed (Mark w/ red P)***	Tin compounds (organic) (T)	Triamiphos
THIMET (T) ***P-Listed (Mark w/ red P)***	Tin tetrachloride (T,C)	1H-1,2,4-Triazol-3-amine
Thioacetamide	**Tirpate** ***P-Listed (Mark w/ red P)***	Trichlorethene (T)
Thiocarbonylchloride (T,C,R)	Titanium (powder) (I)	Trichloroacetaldehyde (hydrated) (T)
THIODAN (T) ***P-Listed (Mark w/ red P)***	Titanium sulfate (T)	1,1,1-Trichloro-2,2- bis(chlorophenyl) ethane (X)
Thiodicarb	Titanium tetrachloride (T,C,R) *DHS Chemical of Interest*	Trichloroborane (T,C,R)
Thiodiglycol *DHS Chemical of Interest*	Titanic chloride (T,C,R)	1,1,2-Trichloroethane
Thiodiphosphoric acid, tetraethyl ester ***P-Listed (Mark w/ red P)***	TMA (Trimethylamine) (T,I)	Trichloroethylene (T)
Thiofanox ***P-Listed (Mark w/ red P)***	TML (Tetramethyl lead) (T,I)	Trichloroisocyanuric acid (T,I)
Thioimidodicarbonic diamide ***P-Listed (Mark w/ red P)***	TNB (1,3,5- Trinitrobenzene) (I,R,T)	Trichloromethane
Thiomethanol (I,T)	TNT (2,4,6-Trinitrotoluene) (T,I,R) *DHS Chemical of Interest*	**Trichloromethanethiol** ***P-Listed (Mark w/ red P)***

1,1,1-Trichloro-2, -bis (p- methoxyphenyl) ethane (T)	Trinitrochlorobenzene *DHS Chemical of Interest*	Urea *DHS Chemical of Interest*
Trichloromethylsulfenyl chloride (T)	Trinitrofluorenone *DHS Chemical of Interest*	Urea, N-ethyl-N-nitroso-
Trichloromonofluoro- methane	**Trinitroglycerin (T,I,R)** ***P-Listed (Mark w/ red P)***	Urea, N-methyl-N-nitroso-
Trichloronitromethane (T)	Trinitro-meta-cresol *DHS Chemical of Interest*	Urea nitrate (T,I,R) *DHS Chemical of Interest*
2,4,5-Trichlorophenol	Trinitronaphthalene (I,R) *DHS Chemical of Interest*	n-Valeraldehyde (T,I)
2,4,6-Trichlorophenol	Trinitrophenetole *DHS Chemical of Interest*	**Vanadic acid, ammonium salt** ***P-Listed (Mark w/ red P)***
2,4,5-Trichlorophenoxyacetic acid	Trinitrophenol (I,R) *DHS Chemical of Interest*	**Vanadic acid anhydride (T)** ***P-Listed (Mark w/ red P)***
Trichlorosilane (T,C,I,R) *DHS Chemical of Interest*	2,4,6-Trinitrophenyl methyl ether (I,R)	Vanadic acid salts (T)
Triethanolamine *DHS Chemical of Interest*	Trinitroresorcinol *DHS Chemical of Interest*	**Vanadium oxide** ***P-Listed (Mark w/ red P)***
Triethanolamine hydrochloride *DHS Chemical of Interest*	2,4,6-Trinitroresorcinol (I,R)	Vanadium oxytrichloride (T,C)
Triethyl phosphate *DHS Chemical of Interest*	Trinitrotoluene *DHS Chemical of Interest*	**Vanadium Pentoxide (T)** ***P-Listed (Mark w/ red P)***
Triethylamine	2,4,6-Trinitrotoluene (T,I,R)	Vanadium sesquioxide (T)
Triethylenephosphoramide (T)	1,3,5-Trioxane, 2,4,6- trimethyl-	Vanadium sulfate (T)
Trifluoroacetyl chloride *DHS Chemical of Interest*	tris(1-Aziridinyl) phosphine oxide (T)	Vanadium tetrachloride (T,C)
Trifluorochloroethylene *DHS Chemical of Interest*	Tris(2,3-dibromopropyl) phosphate	Vanadium tetraoxide (T)
Trifluoromethylbenzene (T,I)	TRITHION (T)	Vanadium trioxide (T)
Trimethyl phosphite *DHS Chemical of Interest*	Tritonal *DHS Chemical of Interest*	Vanadyl sulfate (T)
Trimethylamine (T,I) *DHS Chemical of Interest*	Trypan blue	VAPONA (T)
Trimethylchlorosilane *DHS Chemical of Interest*	Tungsten hexafluoride *DHS Chemical of Interest*	VC (Vinylidene chloride) (T,I) ***Peroxide Forming Chemical Class III***
2,2,4-Trimethylpentane (T,I)	Tungstic acid and salts (T)	Vinyl acetate (I,T) ***Peroxide Forming Chemical Class I***
Trinitroaniline (I,R) *DHS Chemical of Interest*	Turpentine (T,I)	Vinyl acetate monomer *DHS Chemical of Interest*
Trinitroanisole (I,R) *DHS Chemical of Interest*	UDMH (1,1- Dimethylhdrazine)	Vinyl acetylene ***Peroxide Forming Chemical Class I*** *DHS Chemical of Interest*
Trinitrobenzene *DHS Chemical of Interest*	ULTRACIDE (T)	Vinyl chloride ***Peroxide Forming Chemical Class I*** *DHS Chemical of Interest*
1,3,5-Trinitrobenzene (I,R,T)	Uracil mustard	Vinyl ethers ***Peroxide Forming Chemical Class II***
Triitrobenzenesulfonic acid *DHS Chemical of Interest*	Uranyl nitrate (T,I,R)	Vinyl ethyl ether (I) ***Peroxide Forming Chemical Class II*** *DHS Chemical of Interest*
Trinitrobenzoic acid *DHS Chemical of Interest*	Uranium hexafluoride *DHS Chemical of Interest*	Vinyl fluoride *DHS Chemical of Interest*
2,4,6-Trinitrobenzoic acid (I,R)	Uranium nitrate (T,I,R)	Vinyl isopropyl ether (I) ***Peroxide Forming Chemical Class II***

Vinyl methyl ether *DHS Chemical of Interest*	Zinc compounds (T)
Vinyl pyridine ***Peroxide Forming Chemical Class I***	**Zinc cyanide** ***P-Listed (Mark w/ red P)***
Vinylamine, N-methyl-N- nitroso- ***P-Listed (Mark w/ red P)***	**Zinc, bis (dimethylcarba- modithioato-S,S')-** ***P-Listed (Mark w/ red P)***
Vinylbenzene (T,I) ***Peroxide Forming Chemical Class I***	Zinc dithionite *DHS Chemical of Interest*
Vinylidene chloride (T,I) ***Peroxide Forming Chemical Class III*** *DHS Chemical of Interest*	Zinc dioxide (T,I,R)
Vinylidene fluoride *DHS Chemical of Interest*	Zinc ethyl (C,I,R)
Vinyltrichlorosilane (T,C,I,R) *DHS Chemical of Interest*	Zinc hydrosulfite *DHS Chemical of Interest*
VX (O-Ethyl methyl phosphoryl N,N-diisopropyl thiocholine) (T) *DHS Chemical of Interest*	Zinc nitrate (T,I,R)
Warfarin, & salts, when present at concentrations greater than 0.3% ***P-Listed (Mark w/ red P)***	Zinc permanganate (T,I)
Warfarin, & salts, when present at concentrations of 0.3% or less	Zinc peroxide (T,I,R)
WEPSYN 155 (T)	**Zinc phosphide when present at concentrations greater than 10% (R,T)** **P-Listed (Mark w/ red P)**
WP 155 (para-(5-Amino-3- phenyl-1H-1,2,4- triazol-1- yl)-N,N,N',N'-tetramethyl phosphonic diamide) (T)	Zinc phosphide, when present at concentrations of 10% or less
Xylene (I)	Zinc sulfate (T)
Yohimban-16-carboxylic acid, 11,17-dimethoxy-18- [(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta,16beta,17alpha,18beta,20alpha)-	ZINOPHOS (T)
ZECTRAM (T) ***P-Listed (Mark w/ red P)***	**Ziram** ***P-Listed (Mark w/ red P)***
Zinc (powder) (I)	Zirconium (powder) (I)
Zinc ammonium nitrate (T,I)	Zirconium chloride (T,C,R)
Zinc arsenate (T)	Zirconium picramate (I) *DHS Chemical of Interest*
Zinc arsenite (T)	Zirconium tetrachloride (T,C,R)
Zinc chloride (T,C)	

Characteristics of Hazardous Chemicals

Characteristics of Hazardous Waste: Ignitability (D001)

40 CFR - CHAPTER I -261.21

(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(1) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60 °C (140 °F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80 (incorporated by reference, see § 260.11), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78 (incorporated by reference, see § 260.11), or as determined by an equivalent test method approved by the Administrator under procedures set forth in §§ 260.20 and 260.21.

(2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

(3) It is an ignitable compressed gas as defined in 49 CFR 173.300 and as determined by the test methods described in that regulation or equivalent test methods approved by the Administrator under §§ 260.20 and 260.21.

(4) It is an oxidizer as defined in 49 CFR 173.151.

(b) A solid waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981; 55 FR 22684, June 1, 1990]

Characteristics of Hazardous Waste: Corrosivity (D002)

40 CFR - CHAPTER I - 261.22

(a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

(1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

(2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55 °C (130 °F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) Standard TM-01-69 as standardized in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter.

(b) A solid waste that exhibits the characteristic of corrosivity has the EPA Hazardous Waste Number of D002.

[45 FR 33119, May 19, 1980, as amended at 46 FR 35247, July 7, 1981; 55 FR 22684, June 1, 1990; 58 FR 46049, Aug. 31, 1993]

Characteristics of Hazardous Waste: Reactivity (D003)

40 CFR - CHAPTER I - 261.23

(a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has *any* of the following properties:

(1) It is normally unstable and readily undergoes violent change without detonating.

(2) It reacts violently with water.

(3) It forms potentially explosive mixtures with water.

(4) When mixed with water, it generates toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment.

(5) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment.

(6) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.

(7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

(8) It is a forbidden explosive as defined in 49 CFR 173.51, or a Class A explosive as defined in 49 CFR 173.53 or a Class B explosive as defined in 49 CFR 173.88.

(b) A solid waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.

[45 FR 33119, May 19, 1980, as amended at 55 FR 22684, June 1, 1990]

Characteristics of Hazardous Waste: Toxicity (D004-D043)

40 CFR - CHAPTER I - 261.24

(a) A solid waste (except manufactured gas plant waste) exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter, the extract from a representative sample of the waste contains any of the contaminants listed in table 1 at the concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purpose of this section.

(b) A solid waste that exhibits the characteristic of toxicity has the EPA Hazardous Waste Number specified in Table I which corresponds to the toxic contaminant causing it to be hazardous.

Table 1--Maximum Concentration of Contaminants for the Toxicity Characteristic

EPA HW No.\1\	Contaminant	CAS No.\2\	Regulatory Level (mg/L)	EPA HW No.\1\	Contaminant	CAS No.\2\	Regulatory Level (mg/L)
D004	Arsenic	7440-38-2	5.0				
D005	Barium	7440-39-3	100.0				
D018	Benzene	71-43-2	0.5				
D006	Cadmium	7440-43-9	1.0				
D019	Carbon tetrachloride	56-23-5	0.5				
D020	Chlordane	57-74-9	0.03				
D021	Chlorobenzene	108-90-7	100.0				
D022	Chloroform	67-66-3	6.0				
D007	Chromium	7440-47-3	5.0				
D023	o-Cresol	95-48-7	\4\200.0				
D024	m-Cresol	108-39-4	\4\200.0				
D025	p-Cresol	106-44-5	\4\200.0				
D026	Cresol	.....	\4\200.0				
D016	2,4-D	94-75-7	10.0				
D027	1,4-Dichlorobenzene	106-46-7	7.5				
D028	1,2-Dichloroethane	107-06-2	0.5				
D029	1,1-Dichloroethylene	75-35-4	0.7				
D030	2,4-Dinitrotoluene	121-14-2	\3\0.13				
D012	Endrin	72-20-8	0.02				
D031	Heptachlor (and its epoxide).	76-44-8	0.008				
D032	Hexachlorobenzene	118-74-1	\3\0.13				
D033	Hexachlorobutadiene	87-68-3	0.5				
D034	Hexachloroethane	67-72-1	3.0				
D008	Lead	7439-92-1	5.0				
D013	Lindane	58-89-9	0.4				
D009	Mercury	7439-97-6	0.2				
D014	Methoxychlor	72-43-5	10.0				
D035	Methyl ethyl ketone	78-93-3	200.0				
D036	Nitrobenzene	98-95-3	2.0				
D037	Pentrachlorophenol	87-86-5	100.0				
D038	Pyridine	110-86-1	\3\5.0				
D010	Selenium	7782-49-2	1.0				
D011	Silver	7440-22-4	5.0				
D039	Tetrachloroethylene	127-18-4	0.7				
D015	Toxaphene	8001-35-2	0.5				
D040	Trichloroethylene	79-01-6	0.5				
D041	2,4,5-Trichlorophenol	95-95-4	400.0				
D042	2,4,6-Trichlorophenol	88-06-2	2.0				
D017	2,4,5-TP (Silvex)	93-72-1	1.0				
D043	Vinyl chloride	75-01-4	0.2				

\1\Hazardous waste number.
\2\Chemical abstracts service number.
\3\Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.
\4\If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

Exempted Product Categories List

The following products are hereby exempted from the Inventory/Labeling System of the CMP based upon the determination that if used according to normal procedures the product would not be classified as a hazardous chemical. However, this classification does not preclude the product from being hazardous waste if, at the time of disposal, it meets the regulatory definition of hazardous waste.

1. Household Cleaning Compounds (single container volume of 5 gallons or less), which can be purchased at a grocery store, meets the OSHA definition for commercial product, and will be used in the manner specified on the labeling. Examples include Comet, Windex, Clorox, etc. "Industrial Use" products and hazardous solvents are not acceptable for this list.

2. DNA and RNA compounds and proteinaceous chemicals, e.g. nucleic acids used in recombinant DNA experiments, enzymes, antibodies. Chemicals supplied in hazardous solvents must be tracked.

3. Metabolites, substances produced during the normal metabolism of living organisms. Examples include sucrose, ATP, citrate, starch, amino acids, vitamins, fats. Reactive substances and biohazards must be treated according to the Inventory/Labeling System of this CMP or existing campus policy.

4. Chromatographic chemicals and absorbents, e.g. silica gel, derivatives of agarose, of dextran and of cellulose.

5. Culture media, commercial products used as growth media for microorganisms or cultured cells.

6. Non-toxic and non-reactive metallic salts, e.g. NaCl, KH_2PO_4, K_2SO_4.

7. Biological buffers, non-reactive buffers commonly used for in vitro biochemical or molecular biological experiments, including Tris, amino acid derivatives, alkylsulfonates and imidazole. For examples, see "Biological Buffers" in Sigma Chemical Co. catalog.

8. Biological detergents, non-reactive detergents commonly used in biochemical research, e.g. bile salts, alkylammonium salts, polyoxyethylene ethers (Triton). For examples, see "Biological detergents" in the Sigma Chemical Co. catalog. Products that would be classified D001 wastes are not acceptable for this list.

9. All oils in volumes of 1 gallon or less. **"Used"** oil will be managed according to state requirements.

10. Gas cylinders. Empty or declared waste gas cylinders are to be returned to vendor as a condition of purchase.

11. Chemicals sealed in equipment or instruments. Disposal of such equipment or instruments may require treatment as hazardous material.

12. Non-reactive pH and ion indicators, e.g. phenolphthalein.

13. Clinical drugs or products not listed under RCRA, e.g. common antibiotics and anesthetics. Products that would be classified as D001 wastes are not acceptable for this list.

14. Drugs. Drugs used in animal research that are regulated by the DEA. Regulated drugs used for other research purposes are not acceptable for this list. Hazardous chemicals and solvents used in the manufacture of regulated drugs are to be tracked as specified in the CMP.

15. Non-radioactive isotopic derivatives of non-hazardous chemicals, e.g. isotopic compounds containing deuterium, ^{13}C or ^{15}N, such as D_2O or $^{13}CO_2$.

APPENDIX B

-Designation of Facility Supervisors and Room Updates
-Hazardous Chemical Transfer Form
-Onsite Hazardous Waste Request Form, Step by step Instructions
-Hazardous Waste Tag
-Onsite Satellite Accumulation Label and Waste Request Step by Step Instructions
-Onsite Adding and Deleting Chemicals from Inventory, Step by Step Instructions
- Onsite Printing Bar Codes, Step by Step Instructions

DESIGNATION OF FACILITY SUPERVISORS AND ROOM UPDATES

Complete the following form for any updates concerning Facility Hazardous Supervisors or designated rooms. Send completed forms to EHS. If you have any questions or problems in completing this form call 816-235-6697 for assistance.

DATE:_____

HAZARDOUS MATERIALS
MANGER:_____
___

FACILITY
SUPERVISOR:_____
___

ROOM(S):_____
___

- ☐ ADD
- ☐ DELETE
- ☐ CHANGE FACILITY SUPERVISOR

  NEW FACILITY
  SUPERVISOR:_____
  __

_____
Print Dean's Name Authorizing this Change

_____ **DATE:**_____
Signature of Dean Authorizing this Change

_____ **DATE:**_____
For Use by EHS

Environmental Health and Safety
1011 E 51st St, KC, MO 64110

TRANSFER OF HAZARDOUS MATERIALS BETWEEN FACILITY SUPERVISORS

Date: _____

TRANSFER FROM-
Location (Building and Room): _____

Hazardous Materials Supervisor: _____

Hazardous Materials Supervisor's Signature: _____ Date: _____

TRANSFER TO-
Location (Building and Room): _____

Hazardous Materials Supervisor: _____

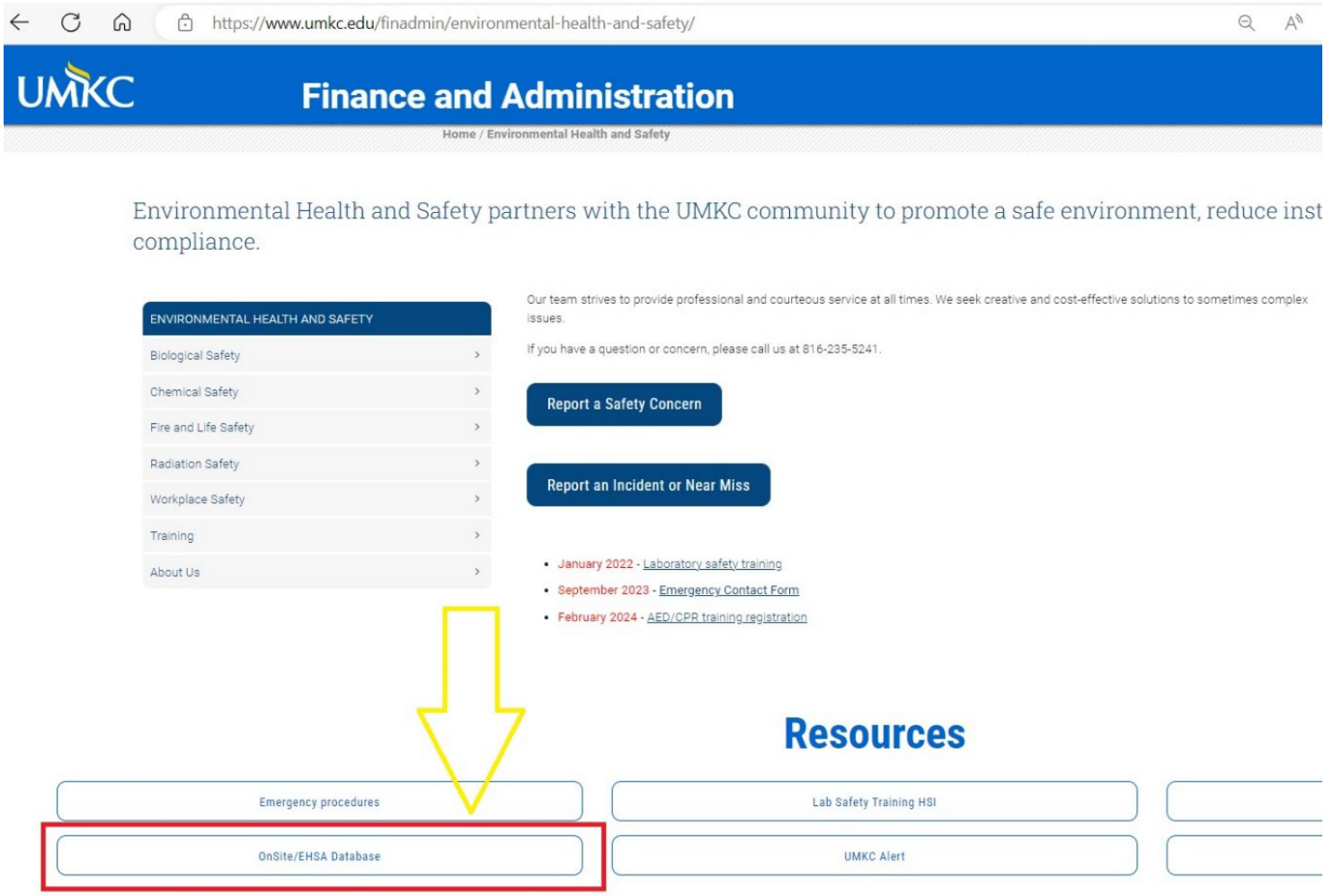
Hazardous Materials Supervisor's Signature: _____ Date: _____

	Chemical Name	**Original Barcode #**	**New Barcode #**
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

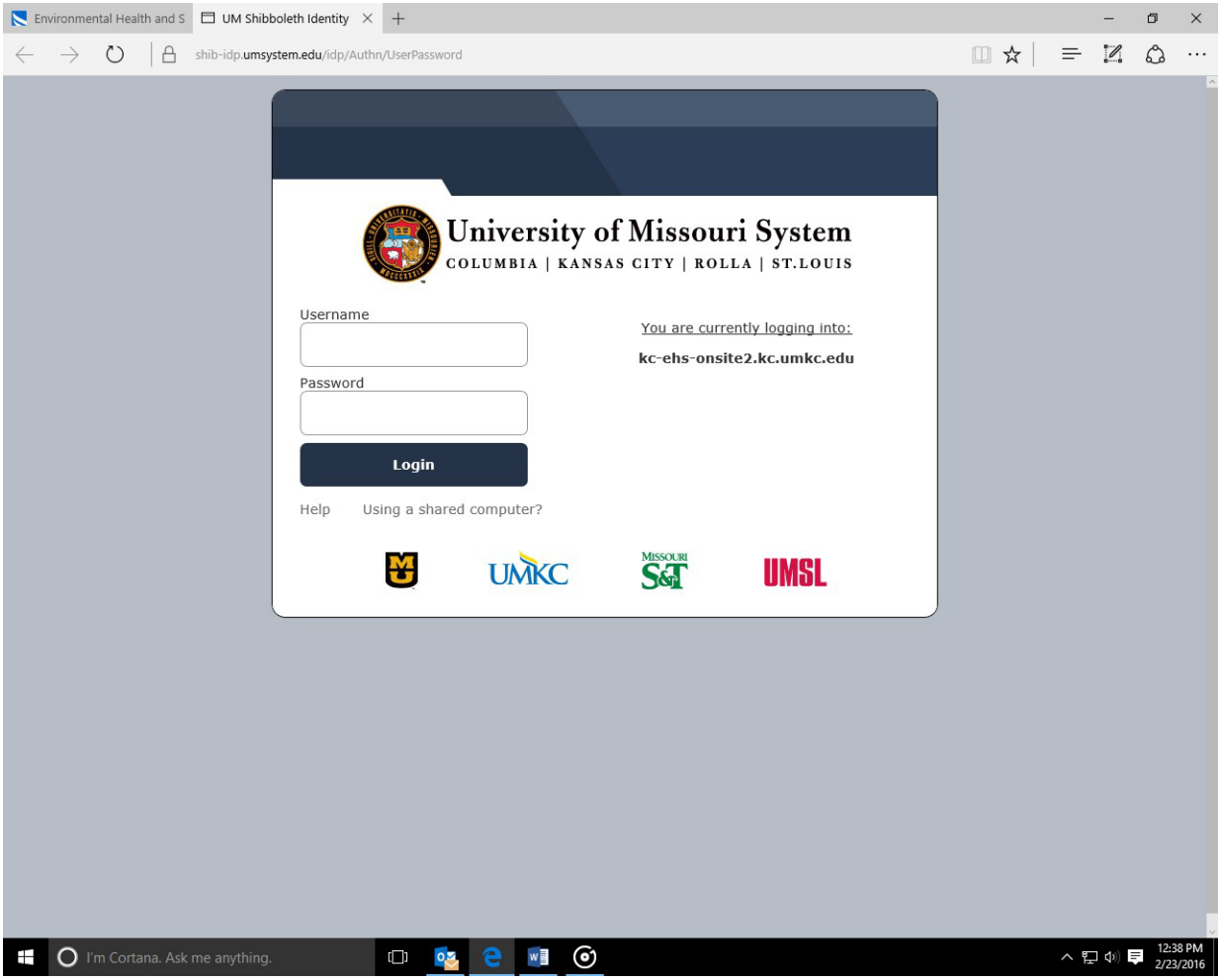
For assistance in filling out this form call 816-235-6697.

Step by Step instructions for Hazardous Waste Request Form.

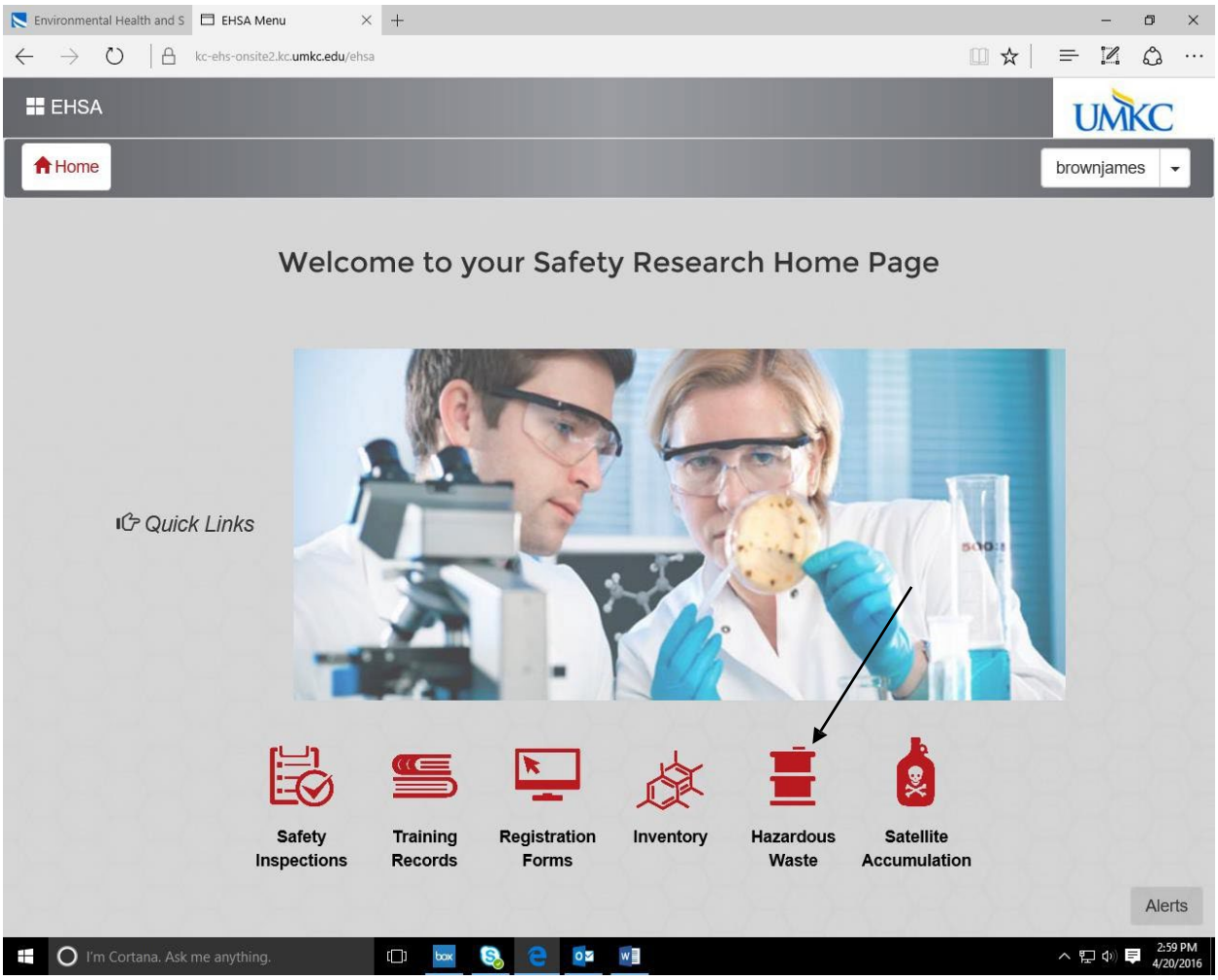
Go to EHS homepage and click on OnSite/EHSA Database.



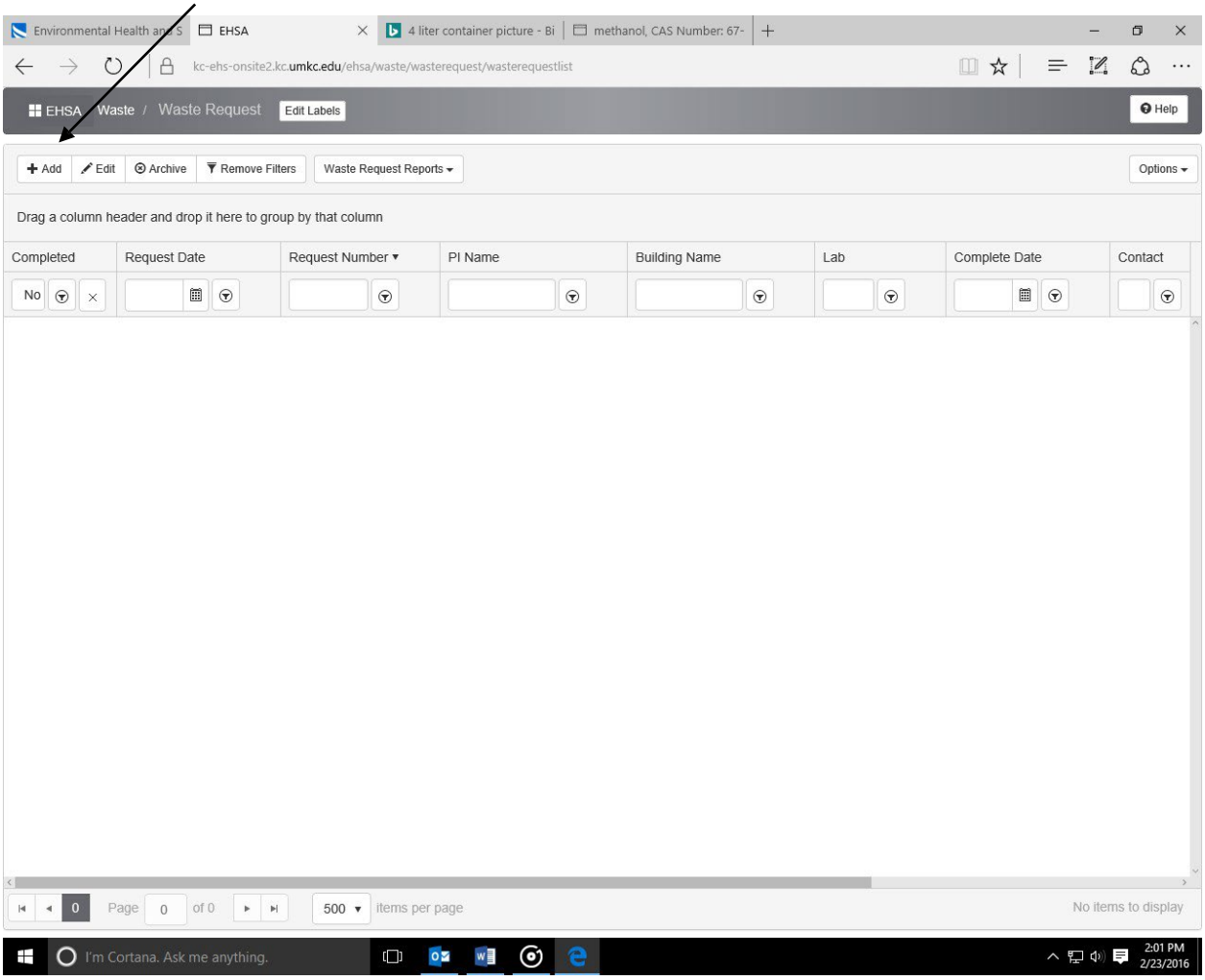
Use your UMKC username and password to access EHS-Assistant.



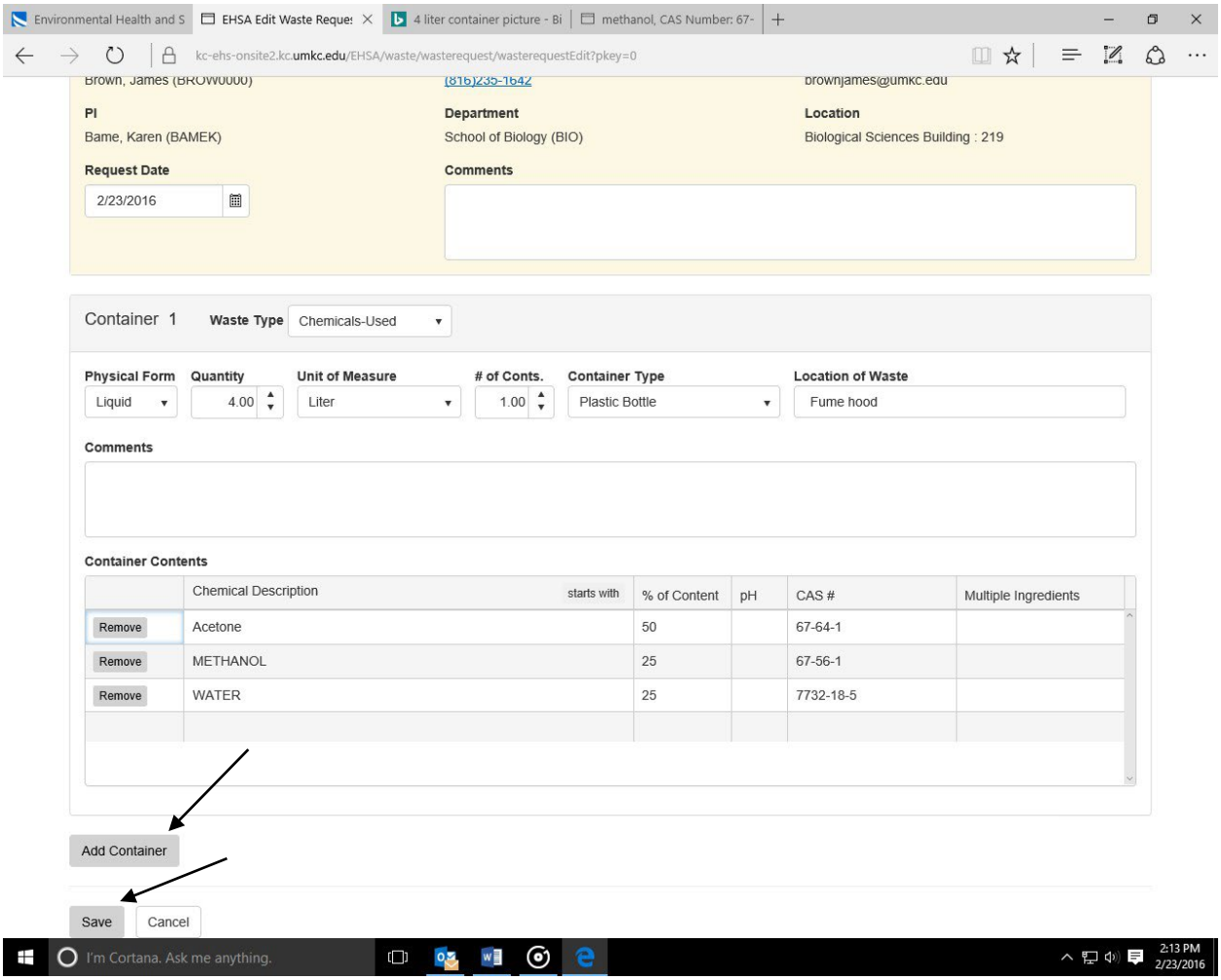
Click on the Hazardous Waste icon. This is for disposal of your laboratory hazardous waste. Please use the Satellite Accumulation icon for disposal of hazardous waste, which is explained in the instruction guide below.



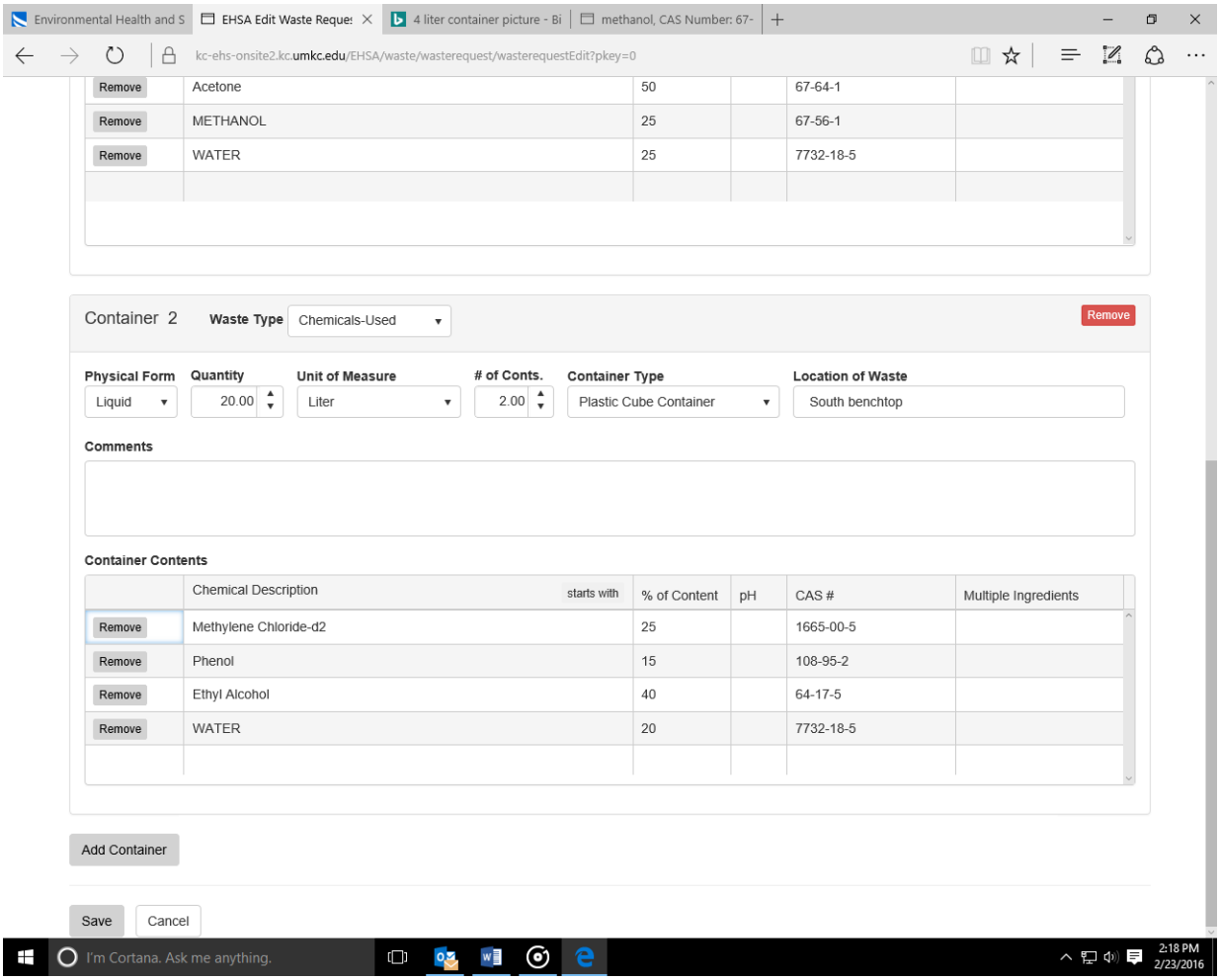
Click on Add


Environmental Health and S
EHSA
4 liter container picture - Bi
methanol, CAS Number: 67-
kc-ehs-onsite2.kc.umkc.edu/ehsa/waste/wasterequest/wasterequestlist
EHSA
Waste
Waste Request
Edit Labels
Help
Add
Edit
Archive
Remove Filters
Waste Request Reports
Options
Drag a column header and drop it here to group by that column
Completed
Request Date
Request Number
PI Name
Building Name
Lab
Complete Date
Contact
No
Page
0
of 0
500
items per page
No items to display
I'm Cortana. Ask me anything.
2:01 PM
2/23/2016

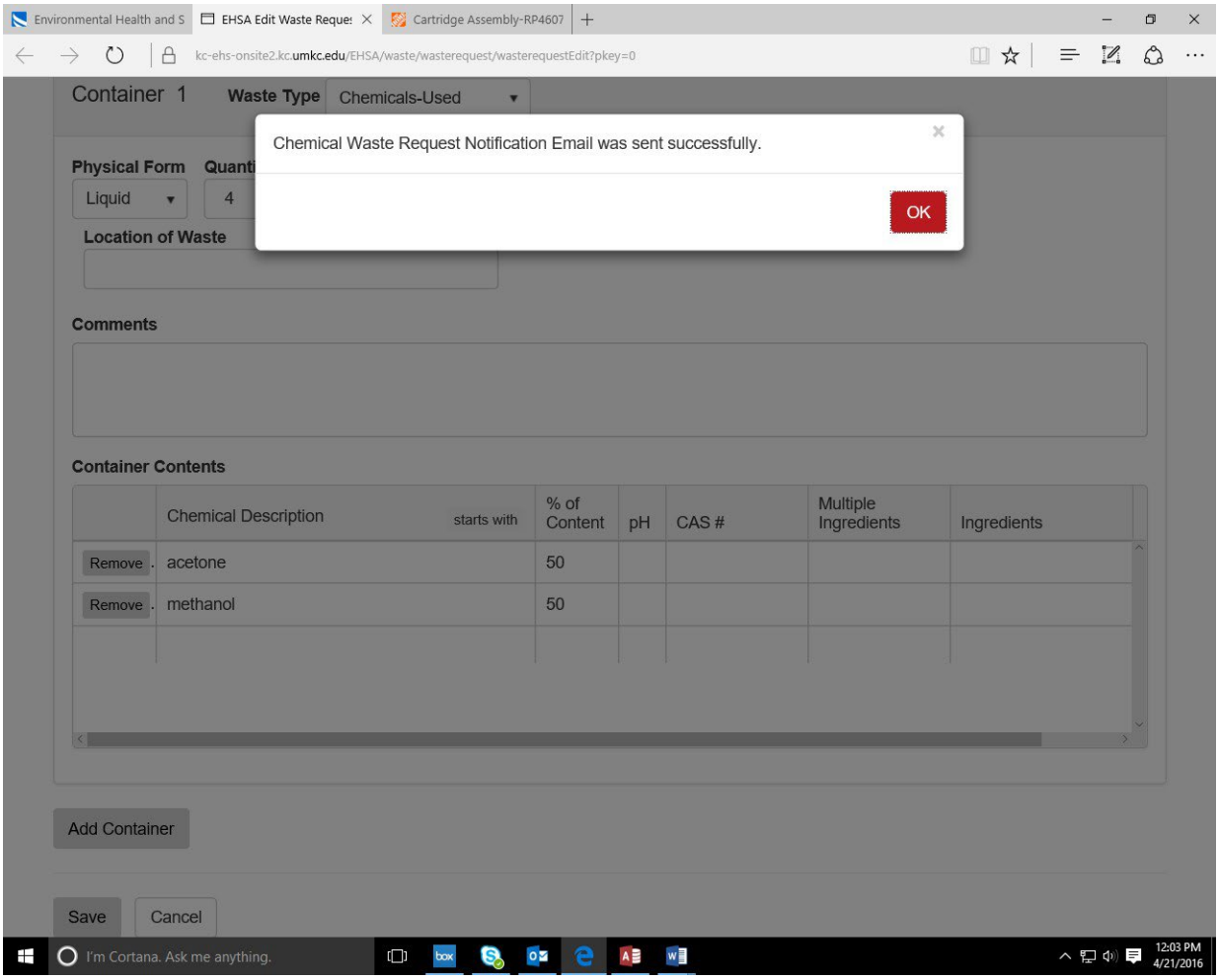
Fill out the fields and click the add container button if there is another waste container to dispose of or the save button if there is only one. If there are multiple waste containers, hit the save button after completely filling out all the waste containers for pick-up.



Here is an example of adding multiple containers under one waste request.



After hitting the save button, this screen appears, confirming that the entry was successful and that an email has been automatically sent to EHS notifying them of a waste container from the lab that is ready for pickup.



HM Tag # 000001	HAZARDOUS WASTE Federal Law Prohibits Improper Disposal	] eclared Waste Date 01/12/2016
ChemName		

Sulfuric Acid

Quantity	300	Units	g		
Rm #	**Person Authorizing PU**	**Contact #**	**RGN**	**DOT Class**	**EPA/DNR #**
Bldg	Dr. Jekle	555-5555	1	8	D002

EPA ID #: MOD-073-133-647
MODNR GEN ID#: 001048
Facility ID #: HH1105

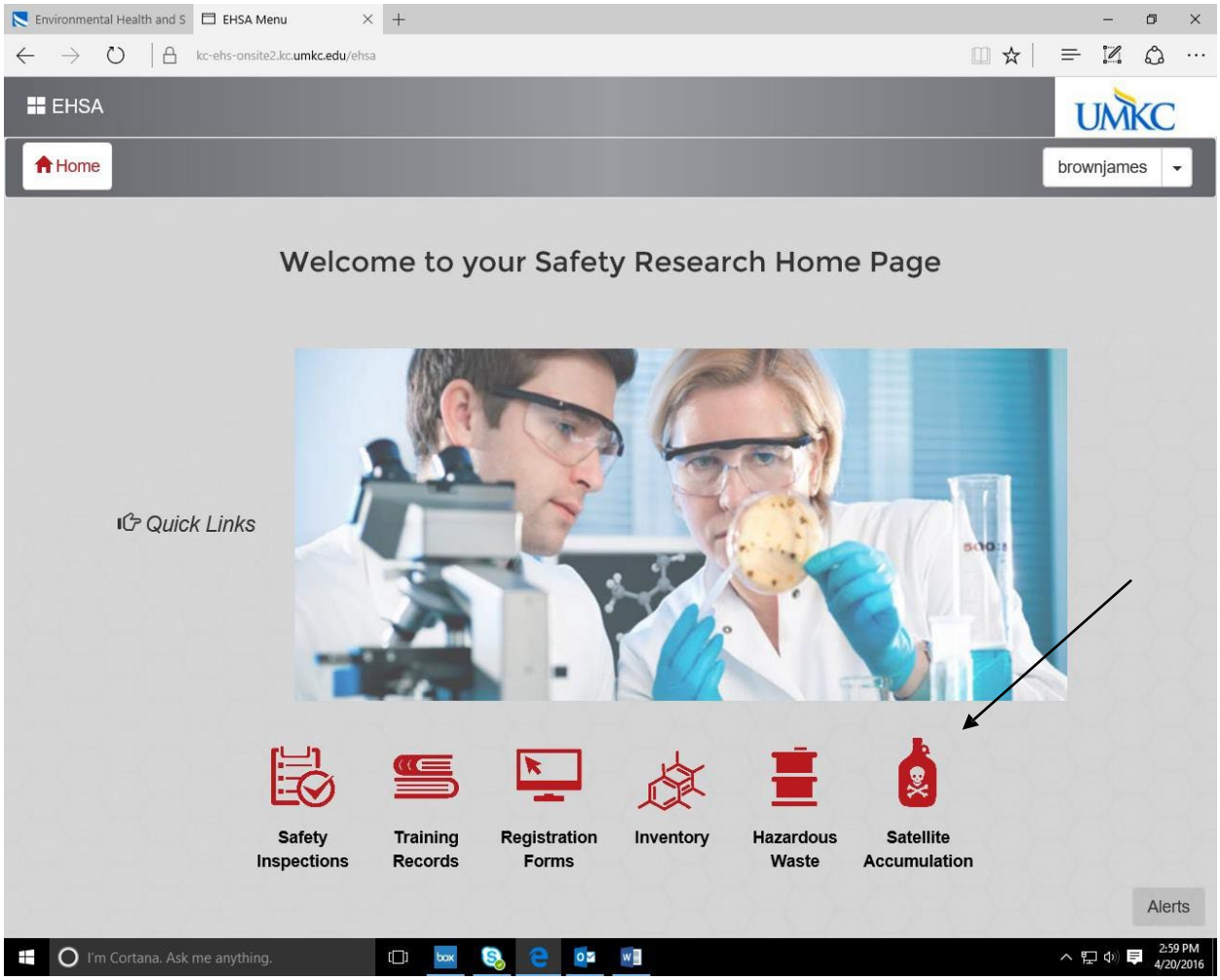
If found contact:
UMKC Police Department (816) 235-1515
UMKC EHS Office (816) 235-1642
US Environmental Protection Agency

Generator Facility Information: The University of Missouri – Kansas City
5010 Troost Avenue, Kansas City, Missouri 64110

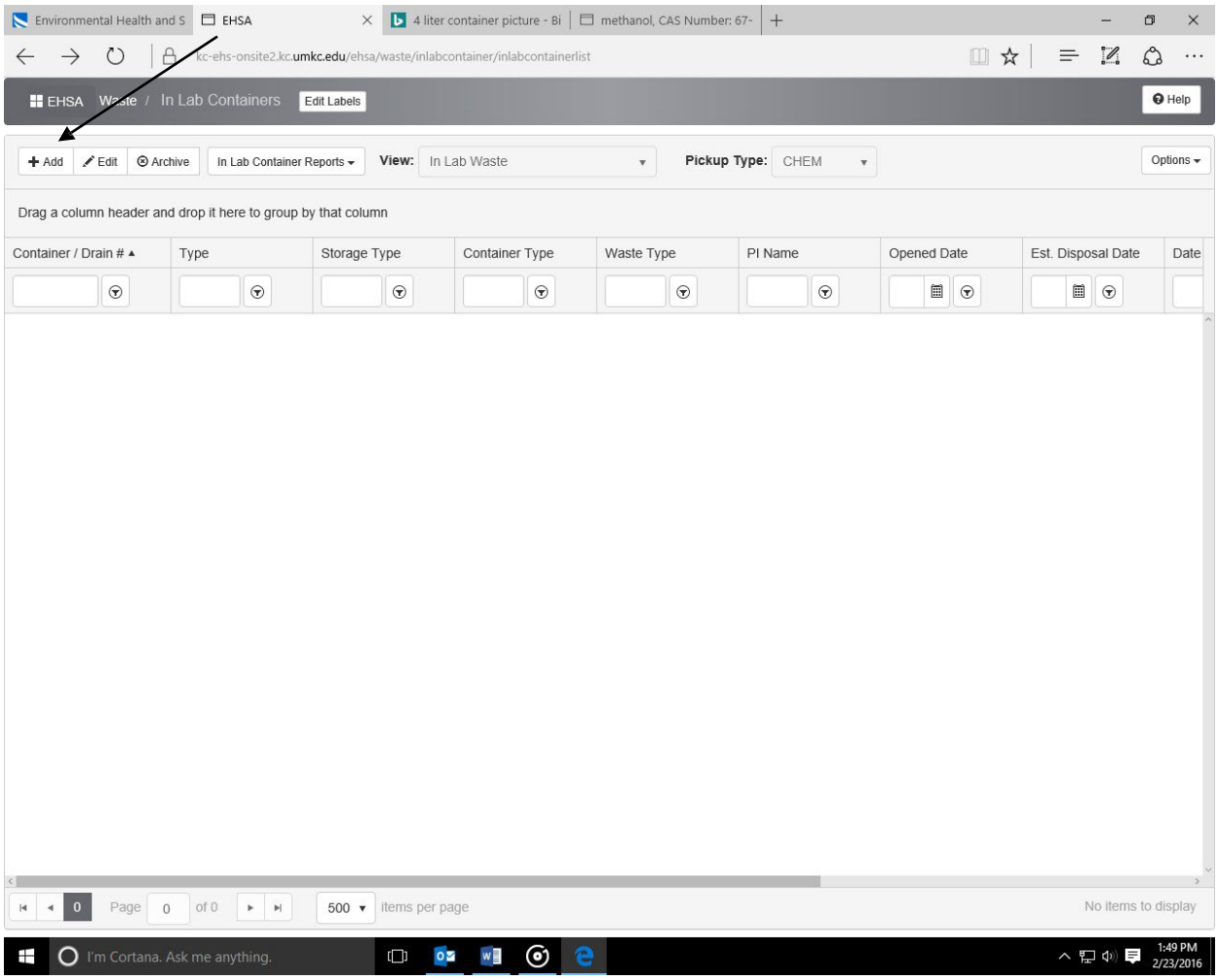
HANDLE WITH CARE!

Step by Step Instructions for Satellite Accumulation Label and Waste Request

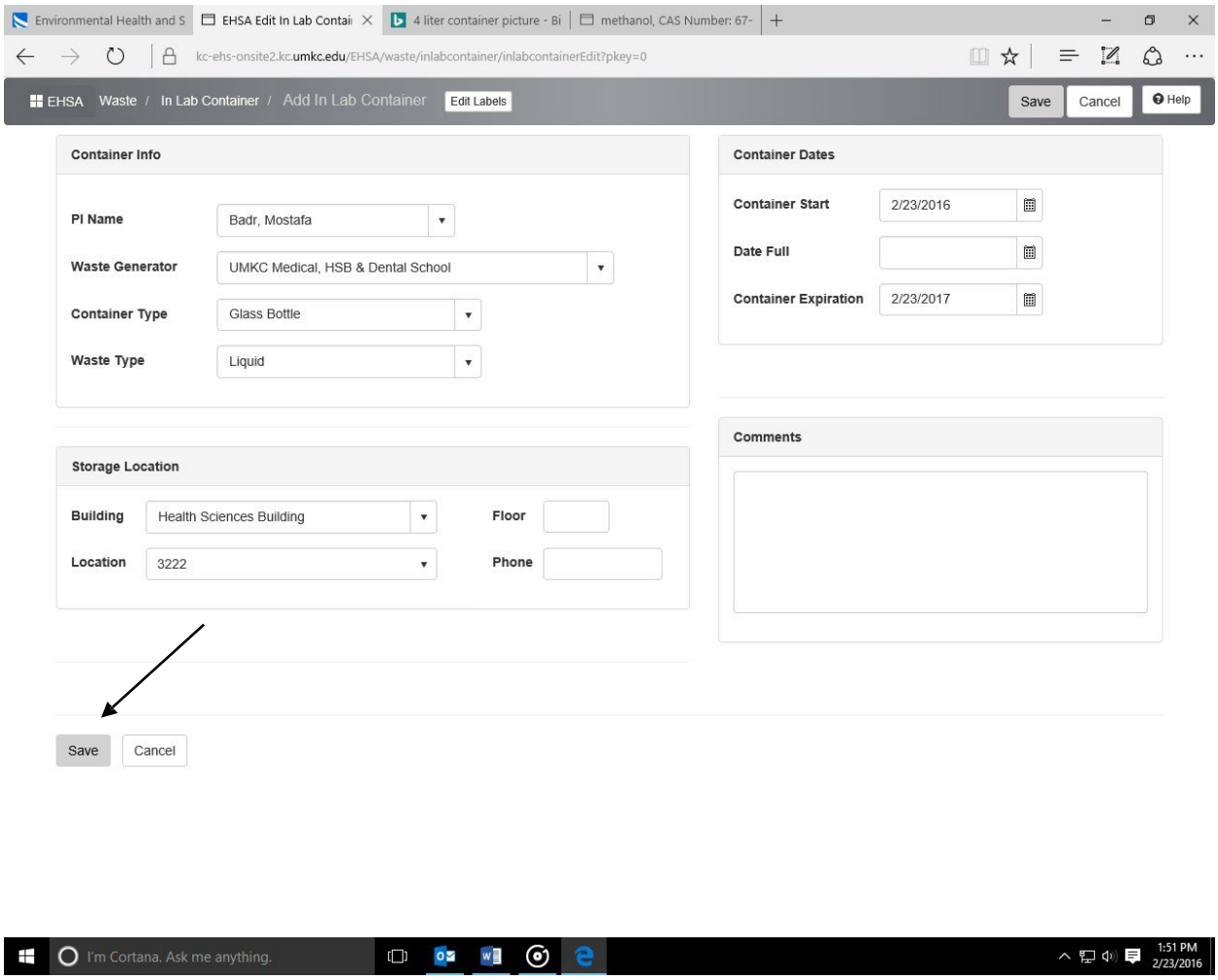
Click on the Satellite Accumulation icon. This is for the satellite accumulation chemical waste label.



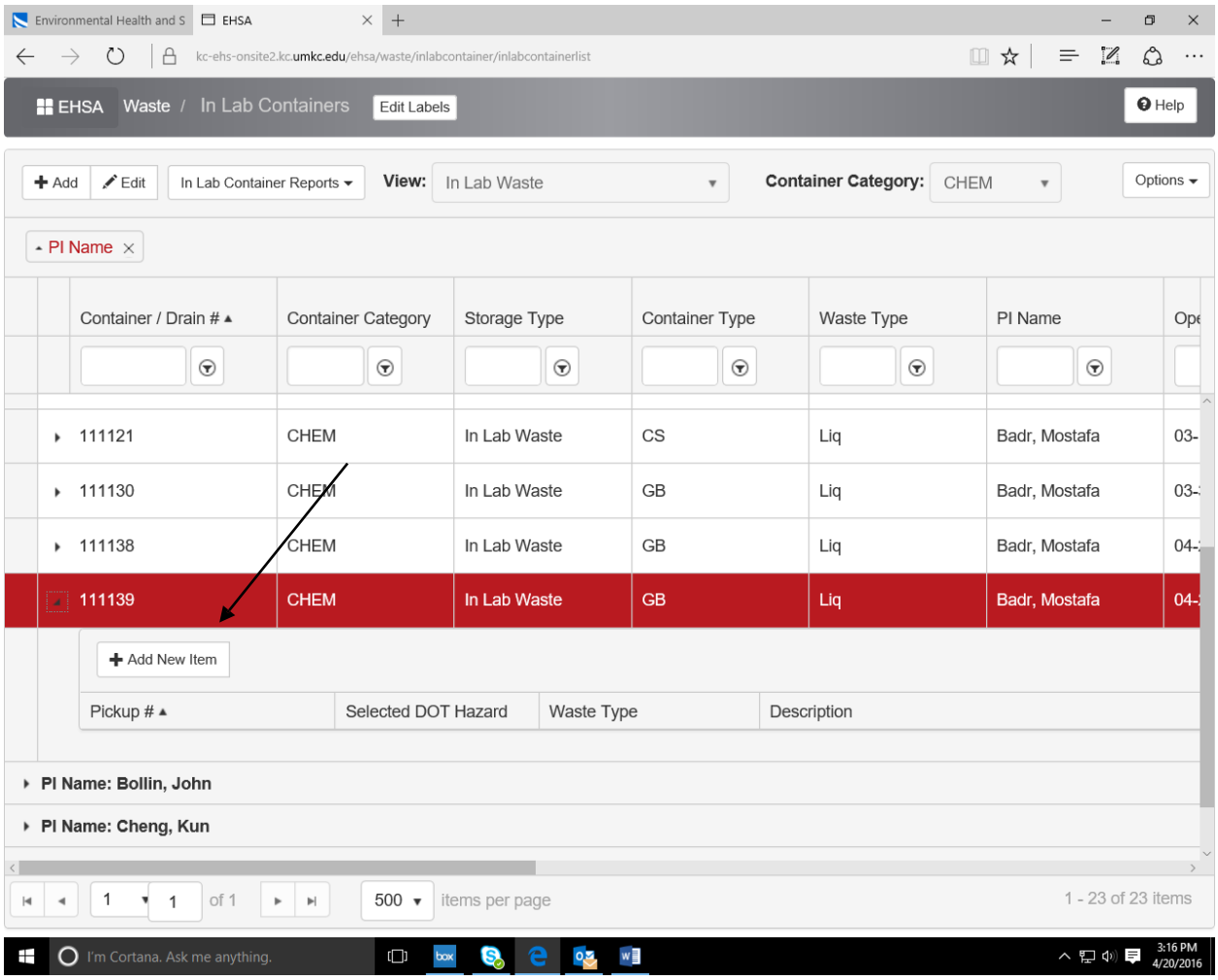
Click Add


Environmental Health and S
EHSA
4 liter container picture - Bi
methanol, CAS Number: 67-
kc-ehs-onsite2.kc.umkc.edu/ehsa/waste/inlabcontainer/inlabcontainerlist
EHSA
Waste / In Lab Containers
Edit Labels
Help
Add
Edit
Archive
In Lab Container Reports
View:
In Lab Waste
Pickup Type:
CHEM
Options
Drag a column header and drop it here to group by that column
Container / Drain #
Type
Storage Type
Container Type
Waste Type
PI Name
Opened Date
Est. Disposal Date
Date
Page
of 0
items per page
No items to display
I'm Cortana. Ask me anything.
1:49 PM
2/23/2016

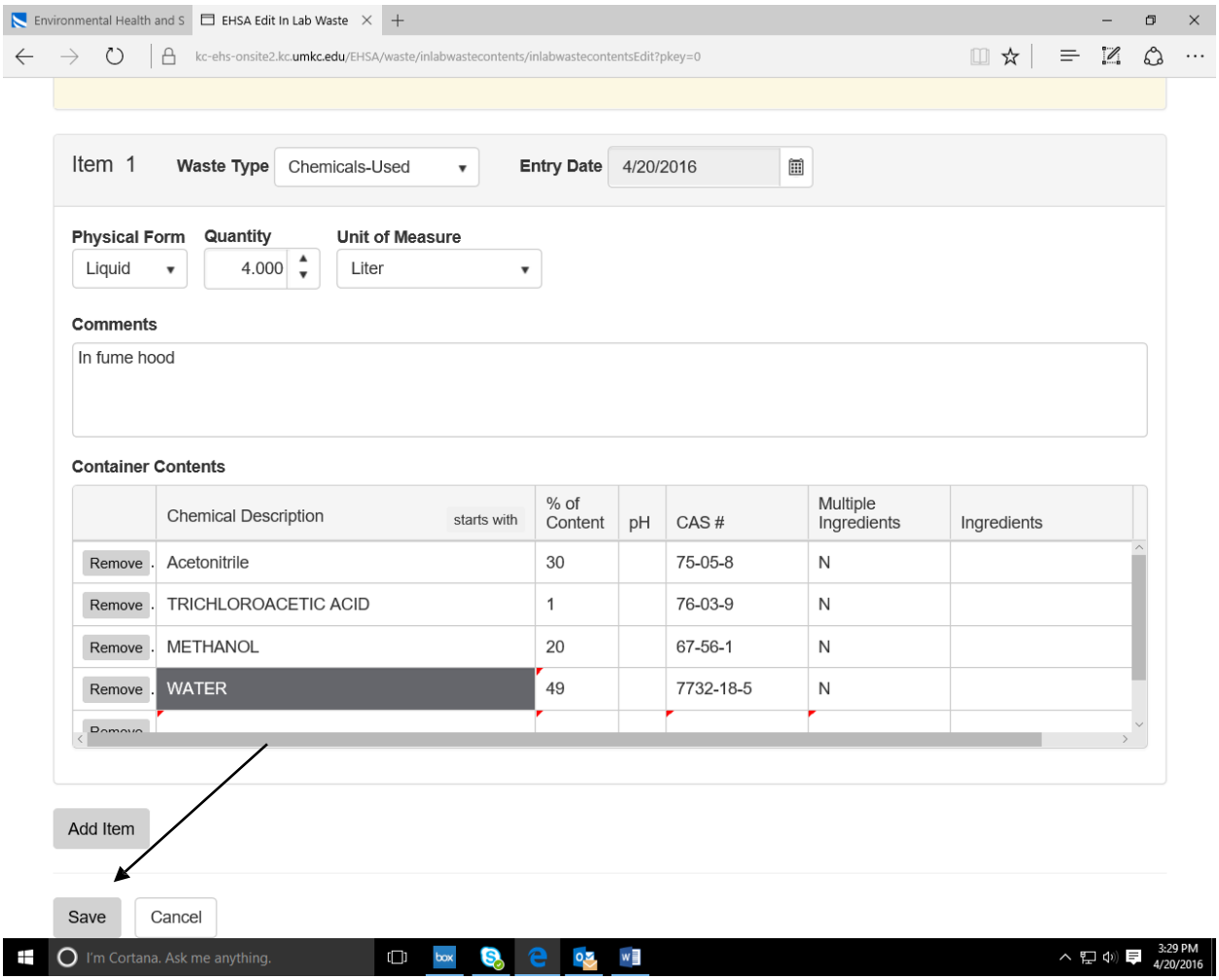
Fill out required fields and click save.



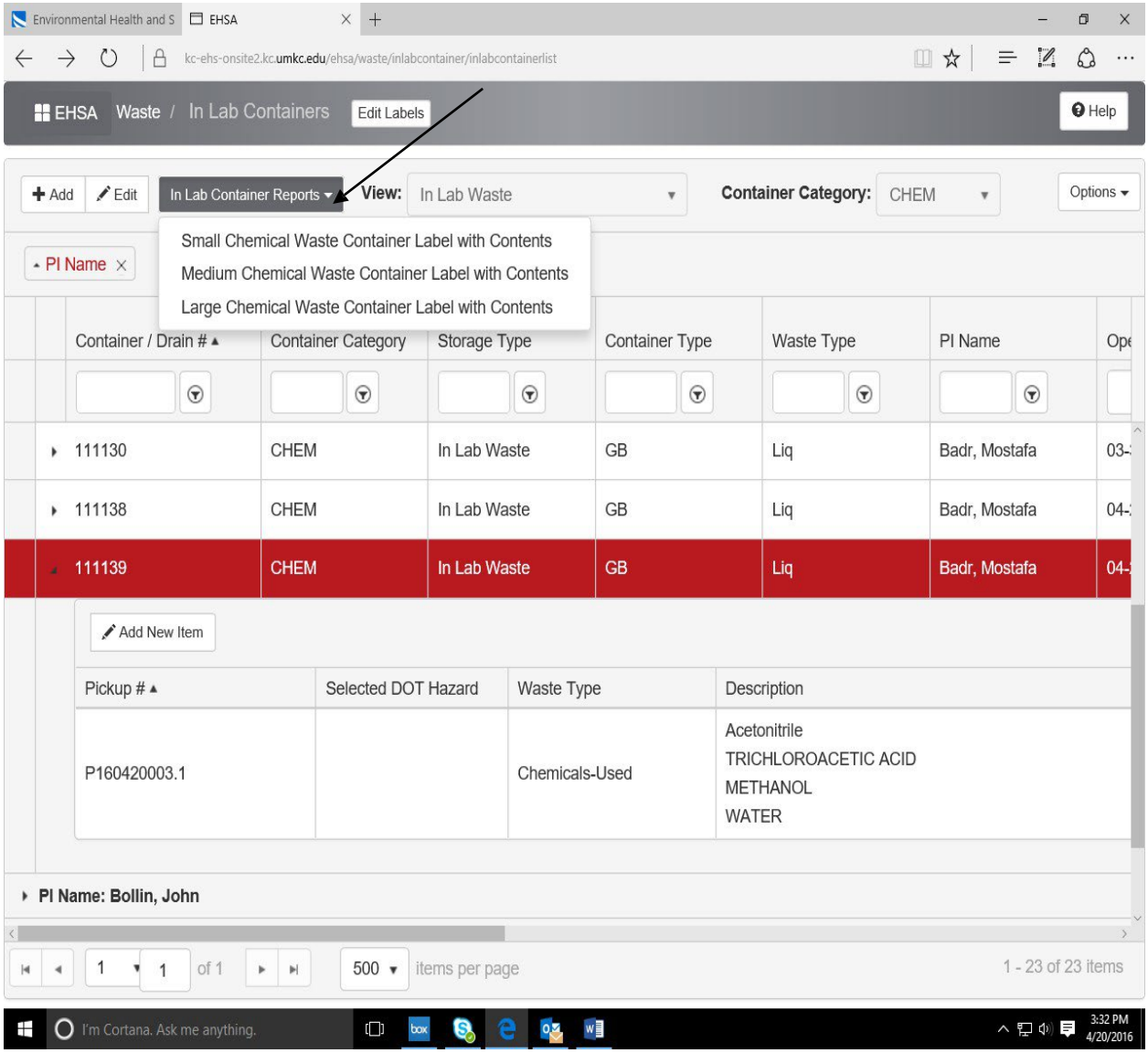
Highlight field and click on the Add New Item



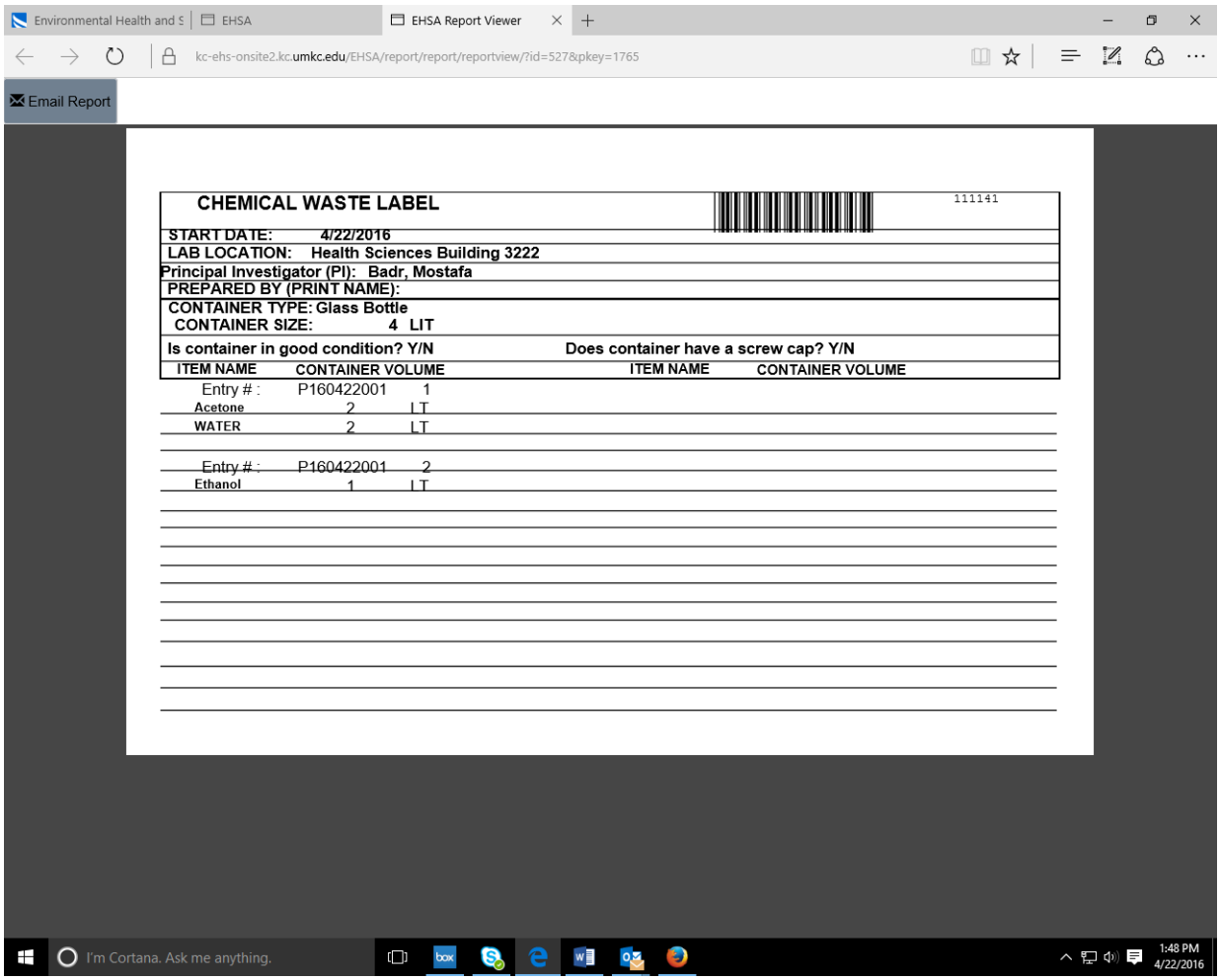
Nexr, fill out the form using the drop down boxes. For the chemical description, click on the box underneath and type the chemical name in the box. This will automatically go to 100%, if there are multiple chemicals, simply click underneath the chemical you just typed and put the other chemicals that are in the container, adjusting the percentages for each chemical. Click the save button**.** If chemicals need to be added later, please use the "Add Item" button



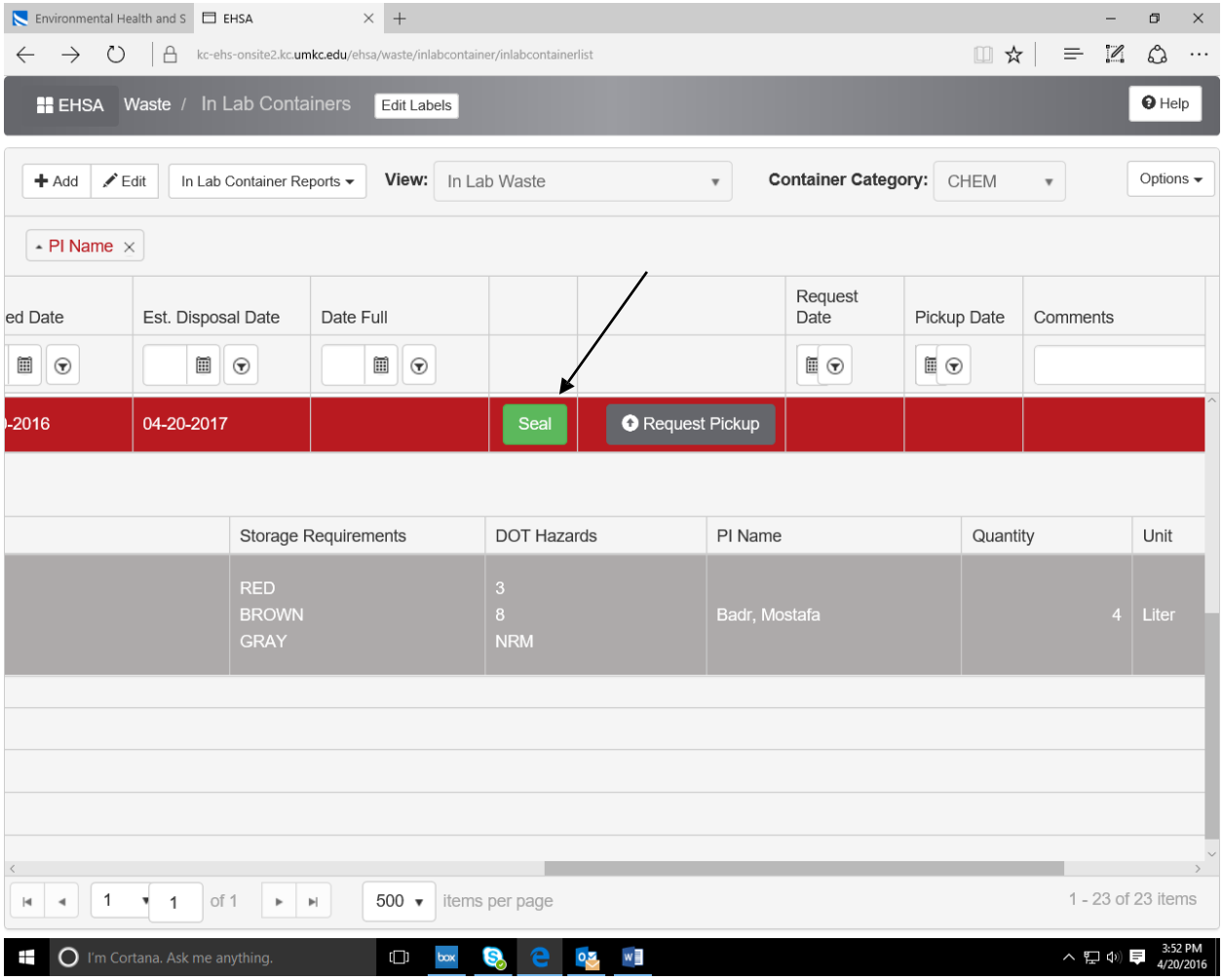
The entry that was just created will be highlighted in red. Click on the **In Lab Container Reports** drop down box and there will be three choices for the chemical waste label, small, medium, and large. Pick which size is needed depending on the size of the accumulation container and click on it. The small would be for around a one liter container, a medium for a 4 liter container, and a large for a 20 liter container.



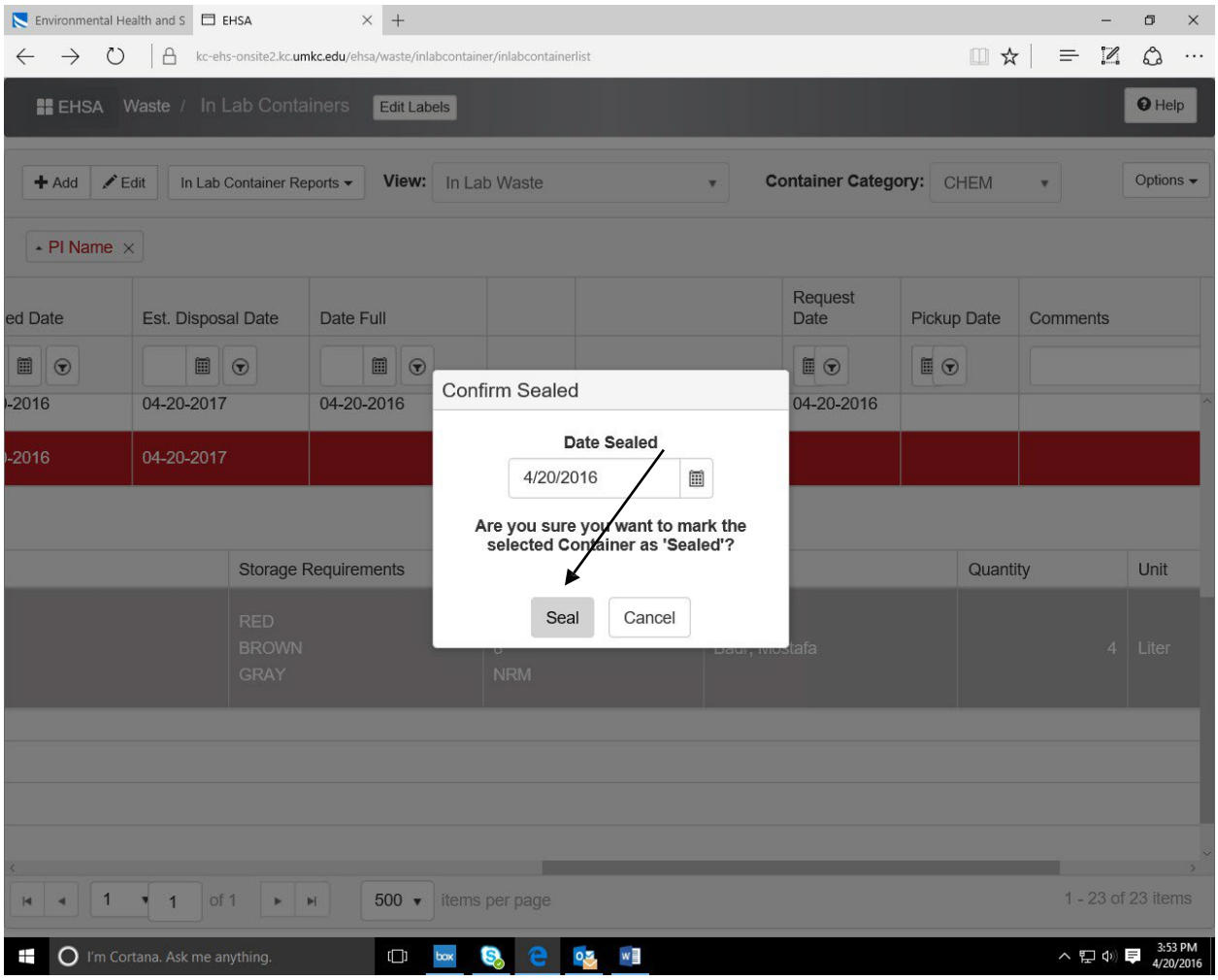
This is an example of the medium label. Print the chemical waste label and handwrite the constituents on the label as you add them and update them to the accumulation container via the program as mentioned above by highlighting the Container #, which this one is 111141, and clicking on the add item button. Attach the label to your waste container. This is EHS tracks the waste container, and it is **required by law** that this is attached to the accumulation container.



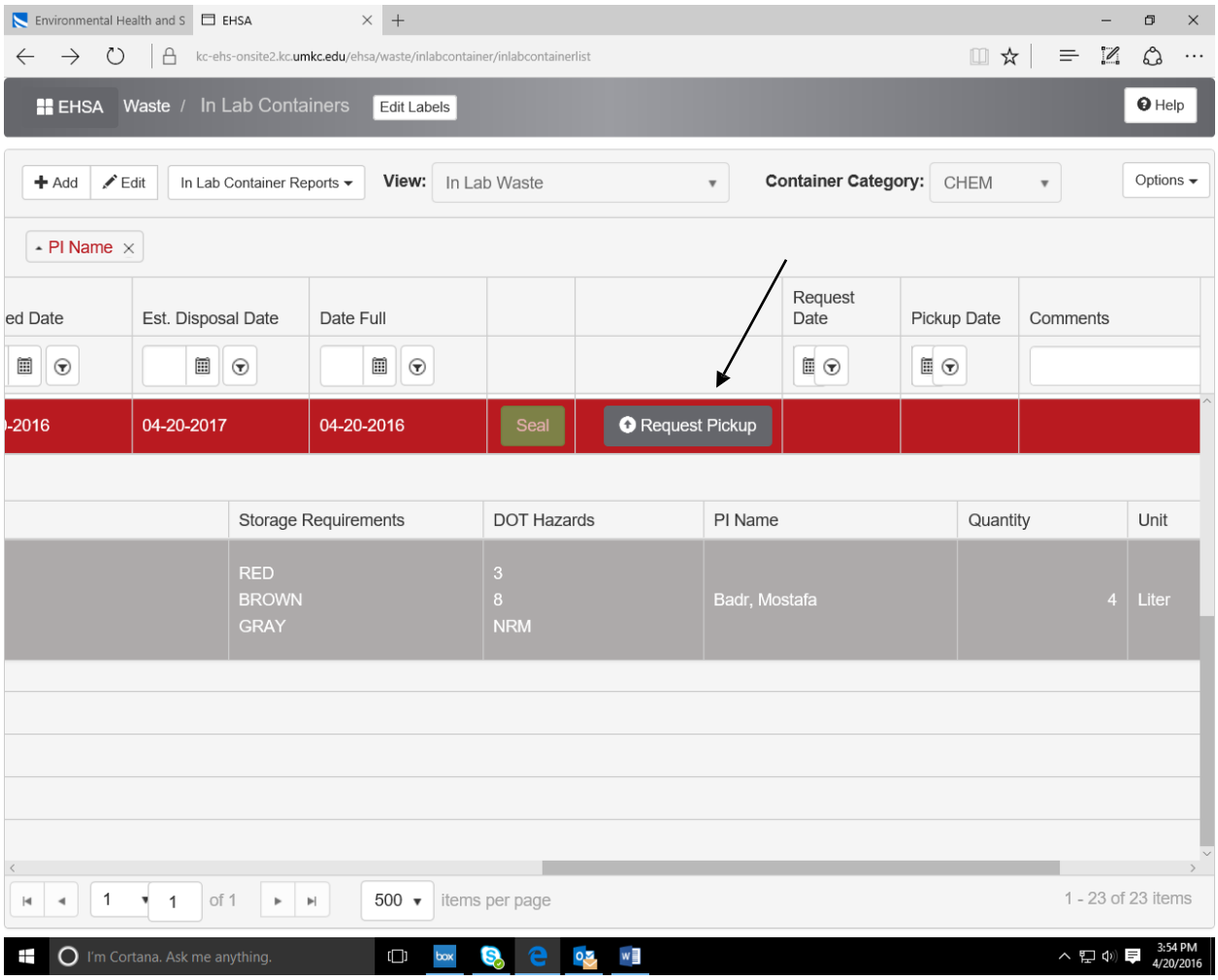
When the accumulation container is full, you can request that it be picked up from your label contents. Highlight the container number, in this case it is 111139. Scroll over to the seal button and click on it.



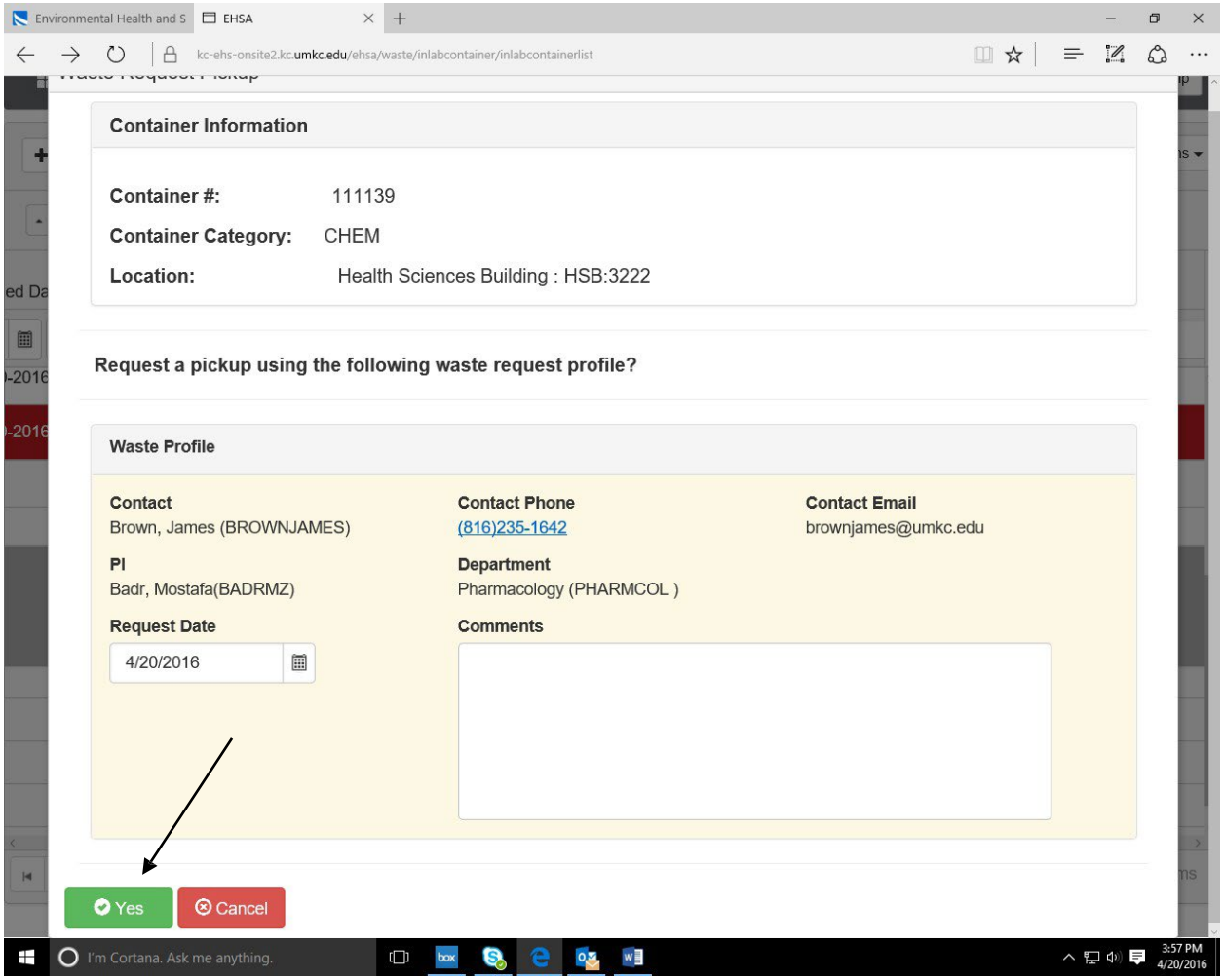
This is the screen that pops up. Click on seal.



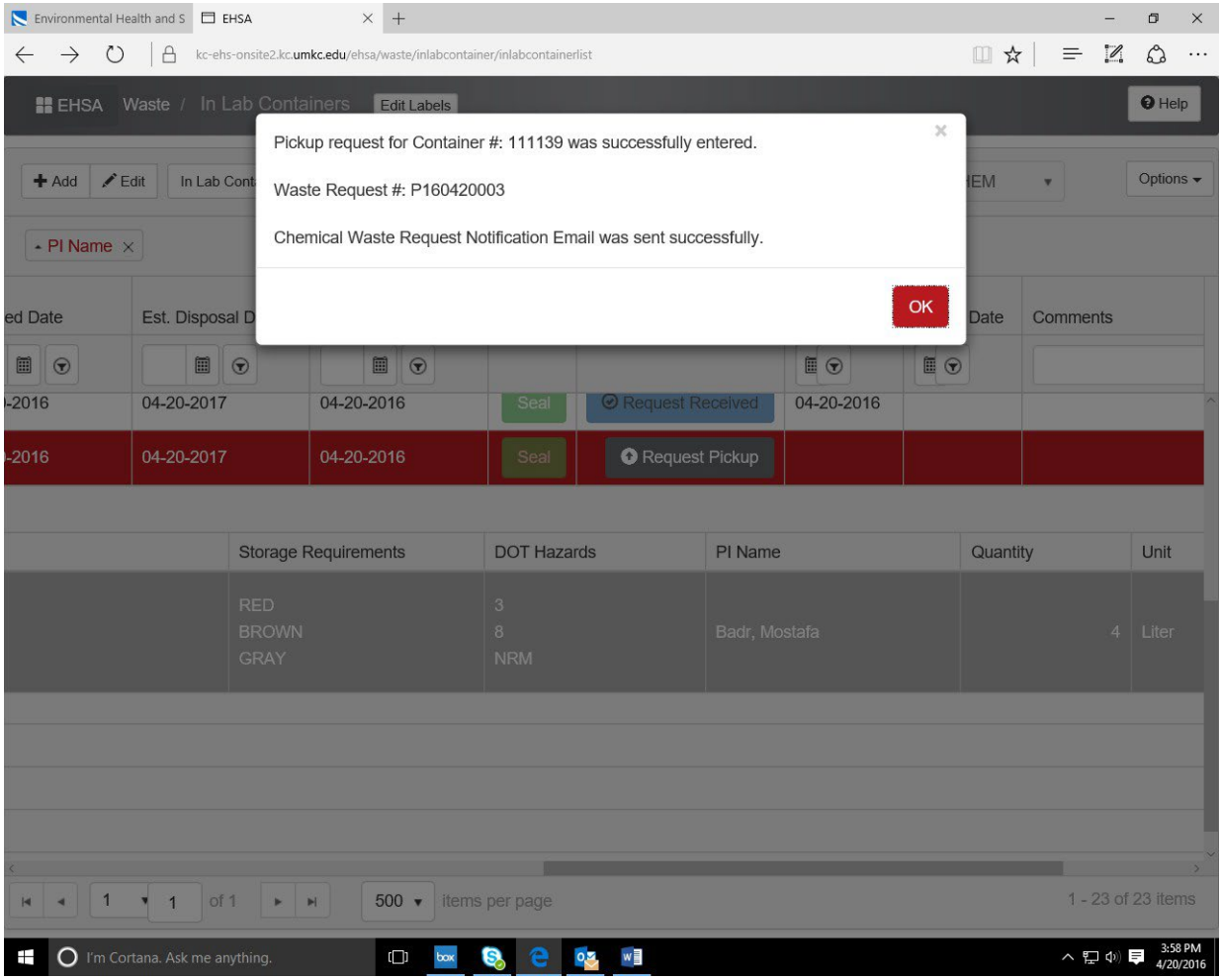
Then click on the request pickup button.



It will ask you to create a waste profile if you have not done so before. Just fill out the required fields and this will be a one-time task. If you have created a waste profile before, this is what your screen will look like with the appropriate information. Click on the Yes button

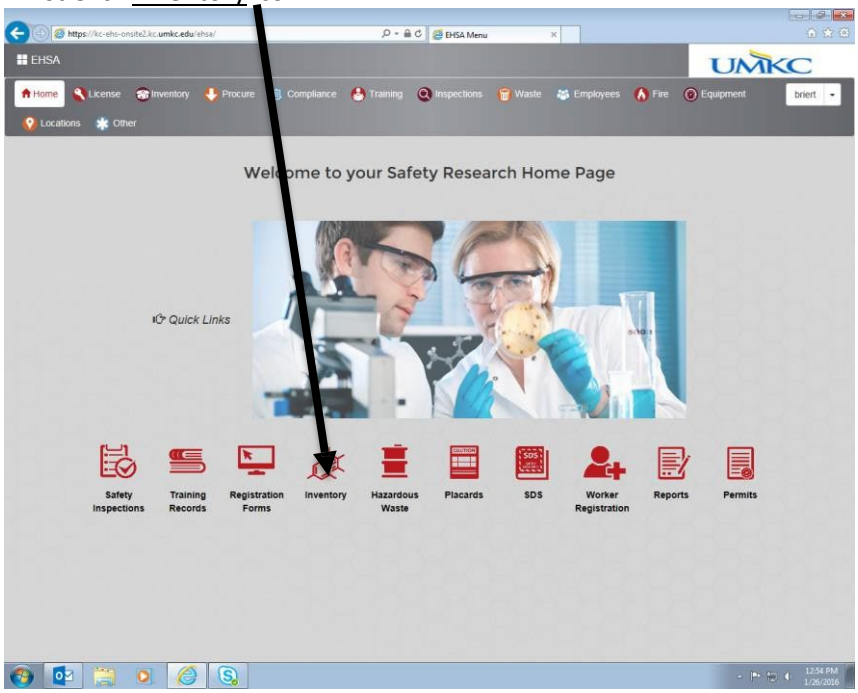


After you click on the Yes button, this is the screen you will get which tells you that is was successfully entered and that an email was sent to EHS informing us that there is a waste container from your lab ready to be picked up. The email is automatically sent to EHS.

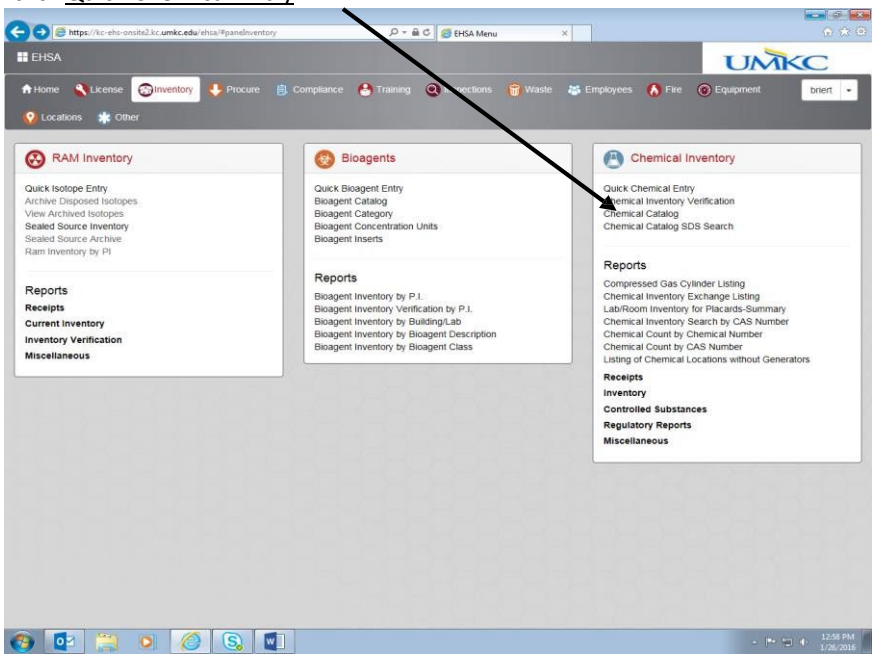


Adding and Deleting Chemicals from Inventory:

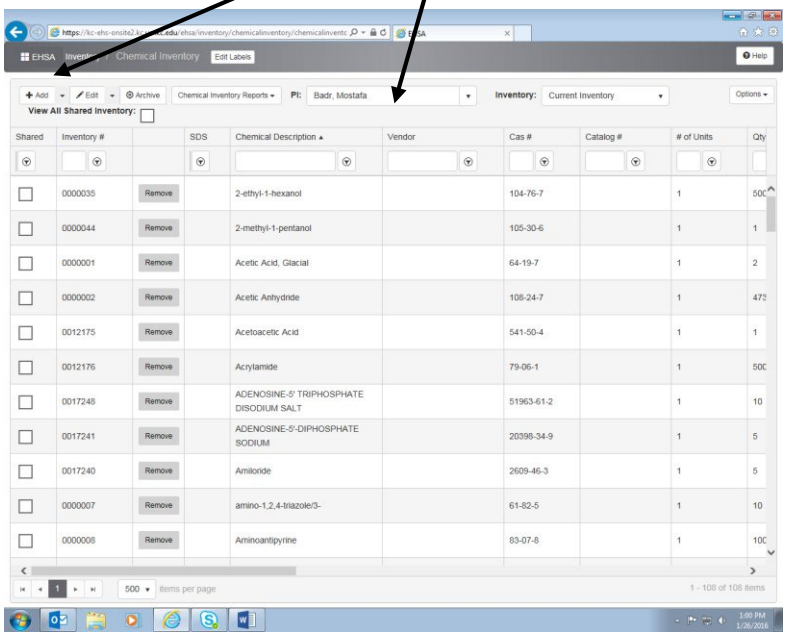
-First Click inventory icon



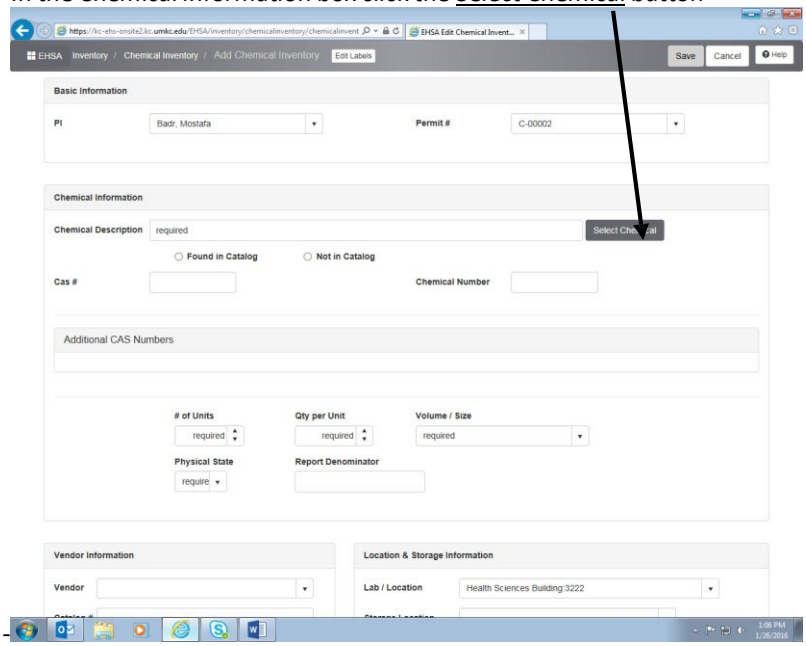
-click Quick Chemical Entry link



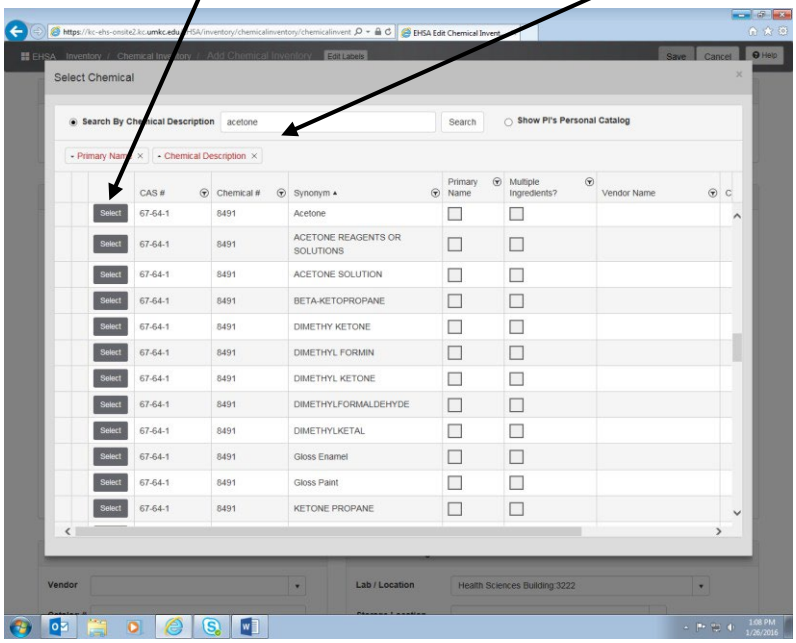
-Be sure the correct PI is selected in the PI box
-Then click the +Add button to begin **adding** a Chemical



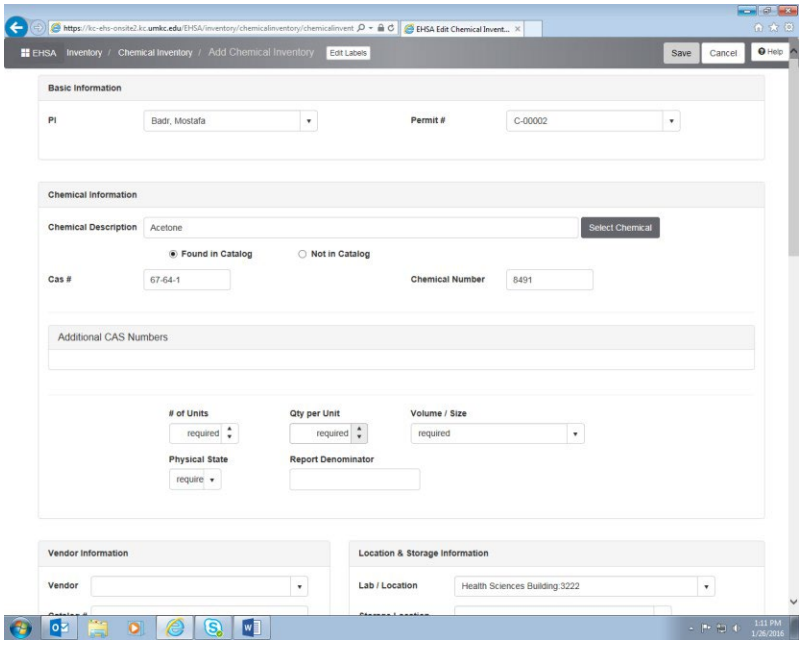
-In the Chemical information box click the Select Chemical button



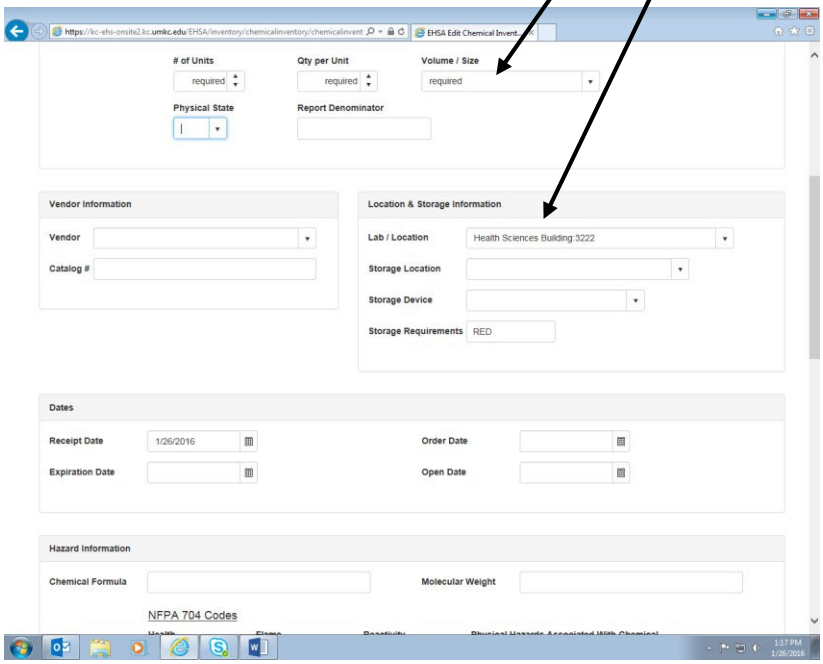
-Type the name of the chemical and press the search button to find it.
-Then press the select button



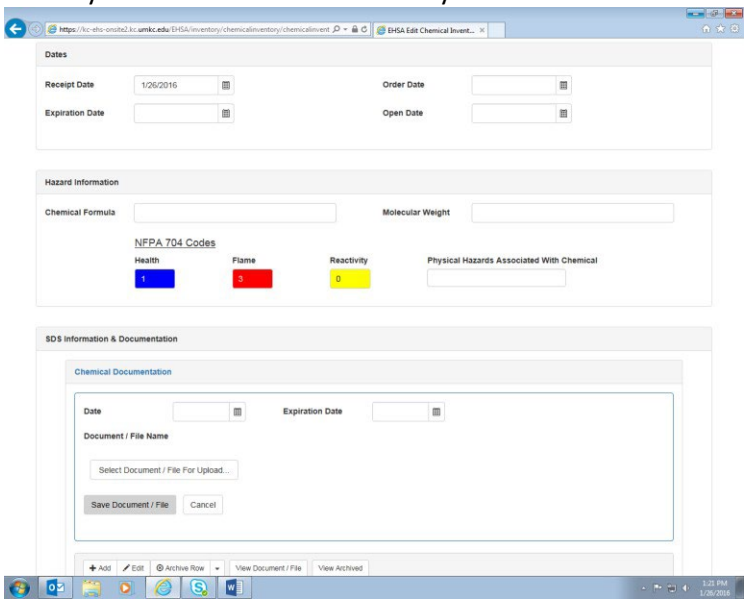
-After selecting the chemical you will be taken back to this screen with the Chemical Description, Cas#, and Chemical Number fields filled in.



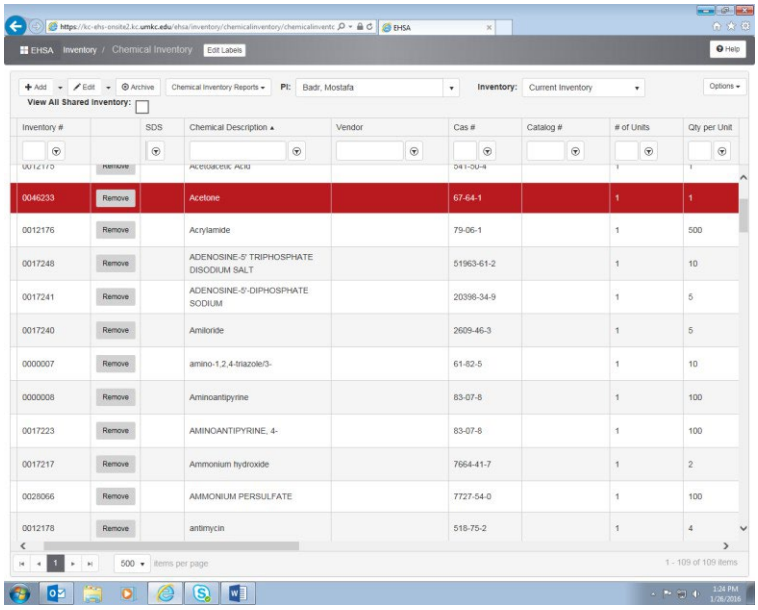
-Then scroll down and fill in the boxes describing the quantity and physical state of the Chemical.
-Then enter in the storage information in the Location & Storage Information box



-Scrolling down further allows you to add more infromation about the chemical and gives you Hazard information about the Chemical.
- After you have entered all nessecary infromation click the Save button at the bottom of the screen

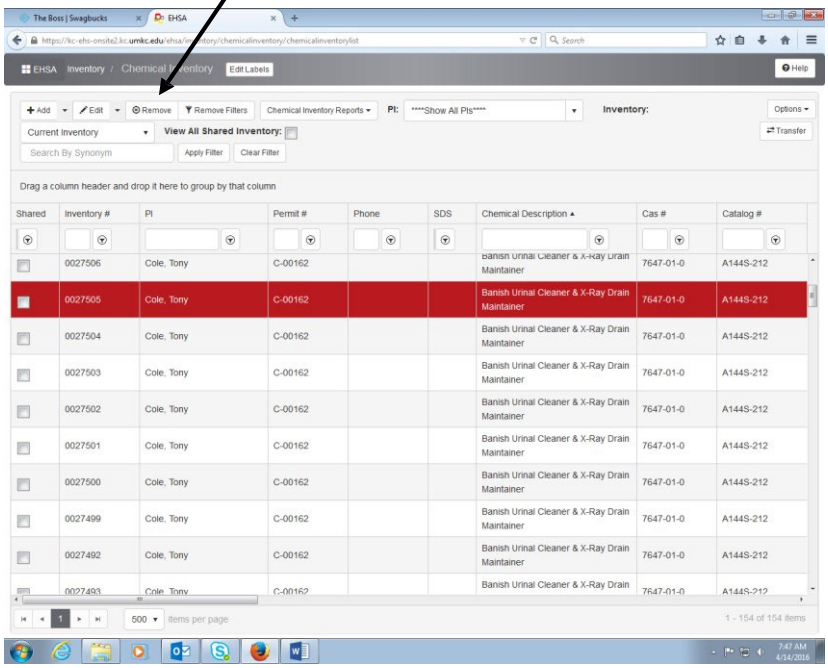


-You will be taken back to the Quick Chemical Entry page from before with the newly entered chemical selected in Red.
-Scrolling right allows you too see more information about the chemical including storage requirments and quantities.



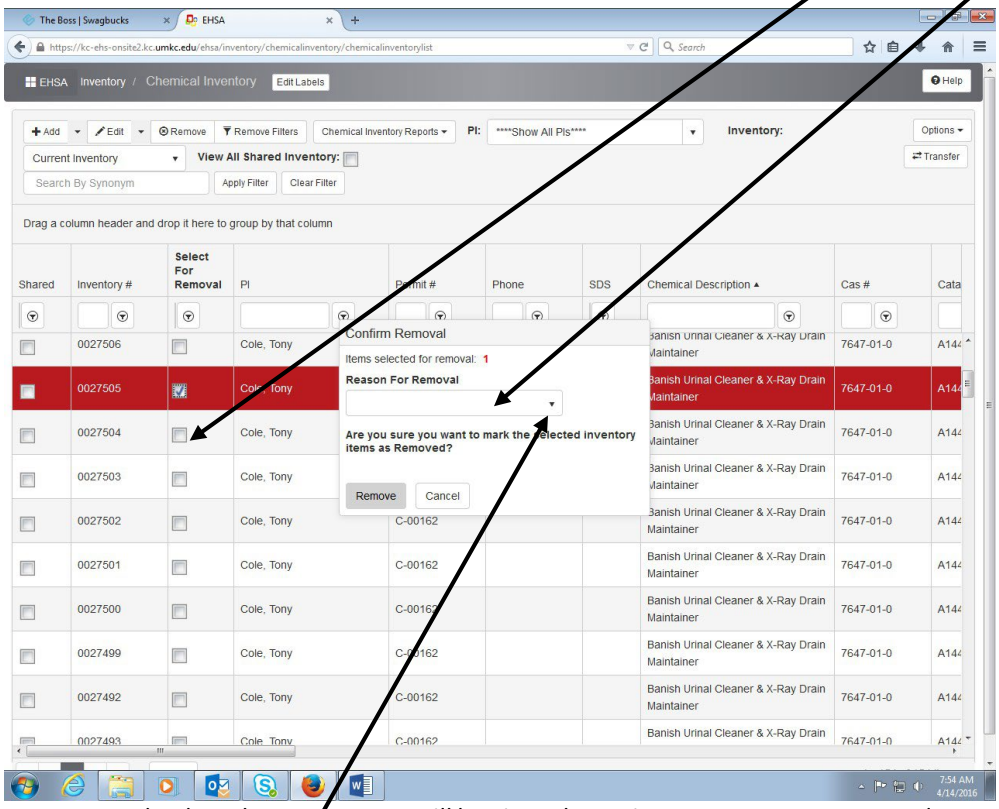
Deleting one or multiple chemicals:

Chemical Click the Remove Button



- A box will appear asking for you to conform removal

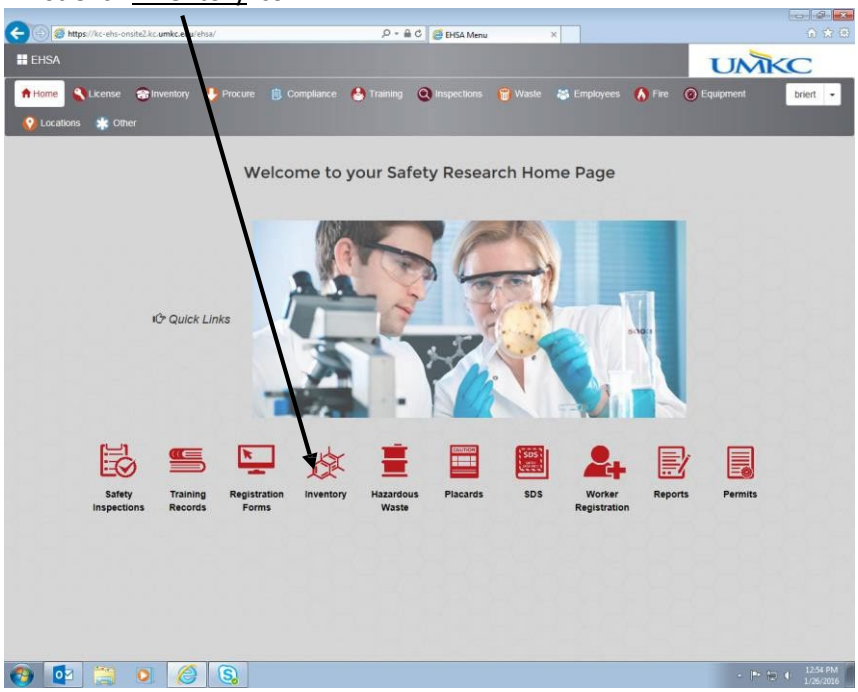
-Selected all the chemicals you want to be removed by clicking these check boxes. You can click multiple boxes to delete multiple chemicals. The number of items selected will appear in red



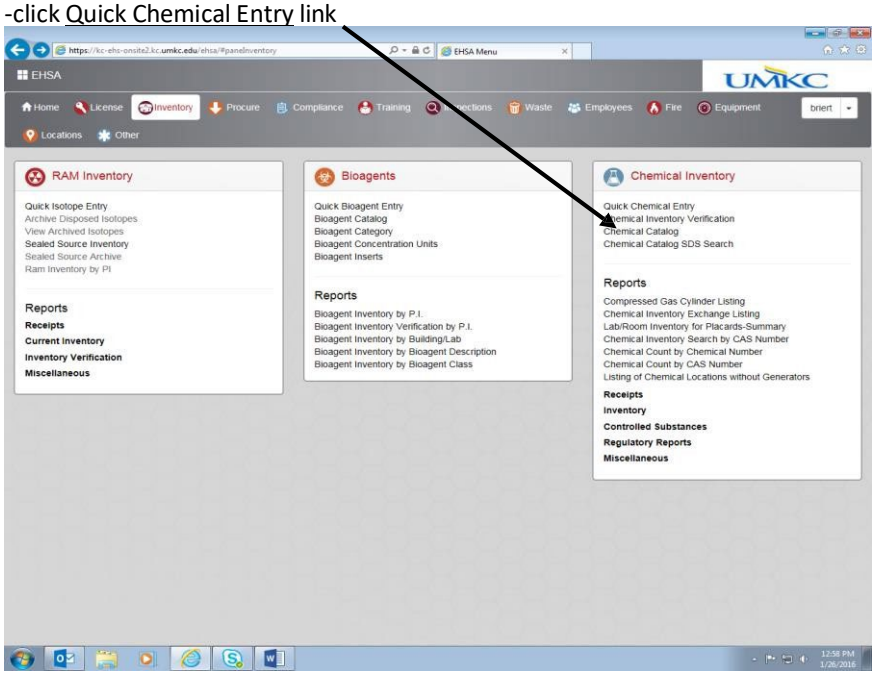
-In the drop down menu you will be given the options: Data Entry Error, Used, Transferred, or Waste. Select one then click the remove button and the entry will be deleted from the Inventory.

Printing Bar Codes:

-First Click inventory icon



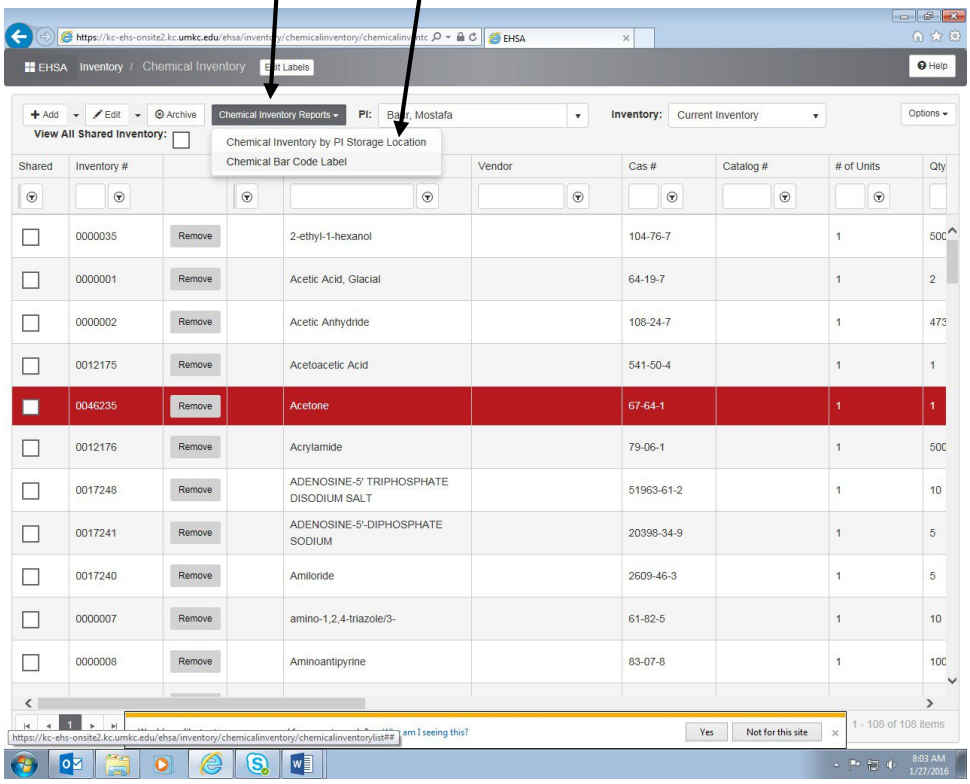
-click Quick Chemical Entry link



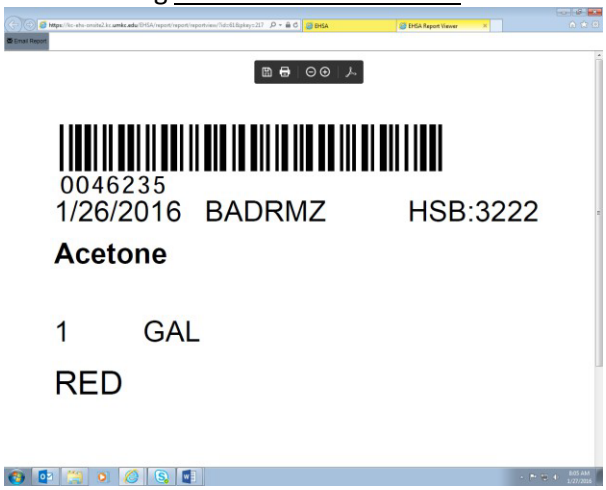
-Be sure the correct PI is selected in the PI box

-Then click the chemical you want to print a bar code for which should select it in red.

-Next click the Chemical Inventory Reports button and click the Chemical Bar Code label button from the drop down menu.



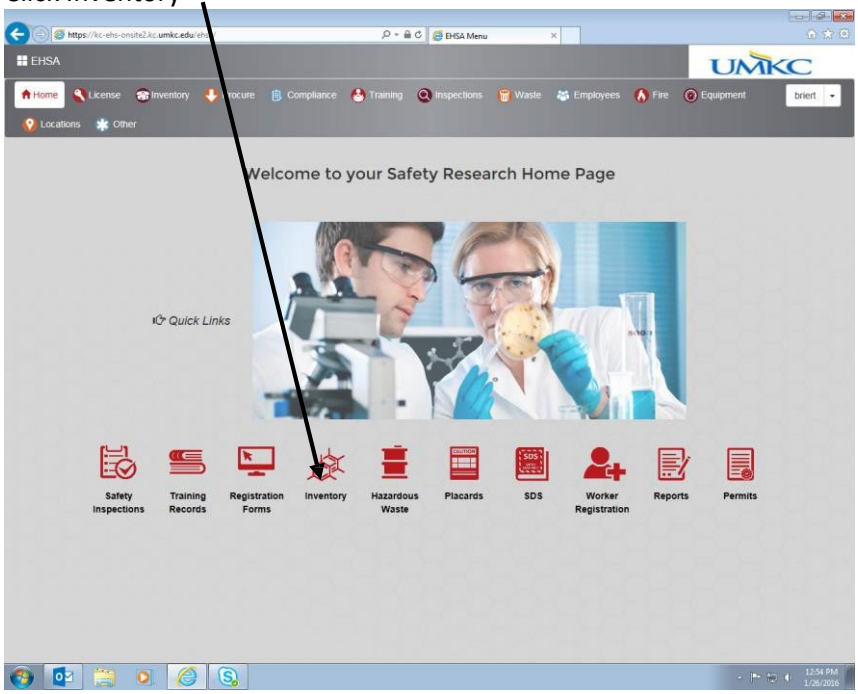
-After clicking Chemical Bar Code label a second window will open up containing a PDF of the label



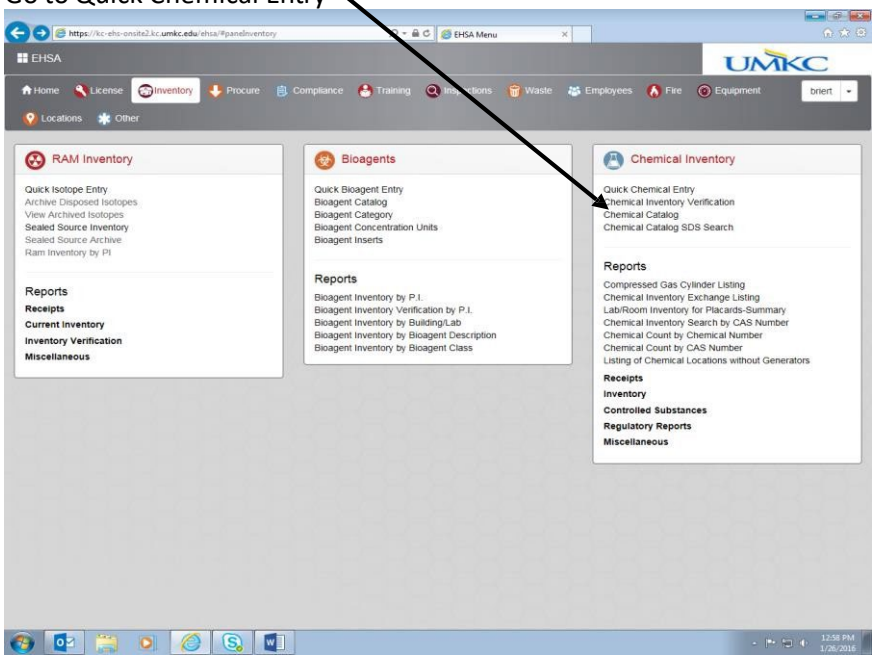
Printing Multiple Bar Codes: By Date

-This is so you can print multiple bar codes for chemicals you have recently logged or logged between certain dates.

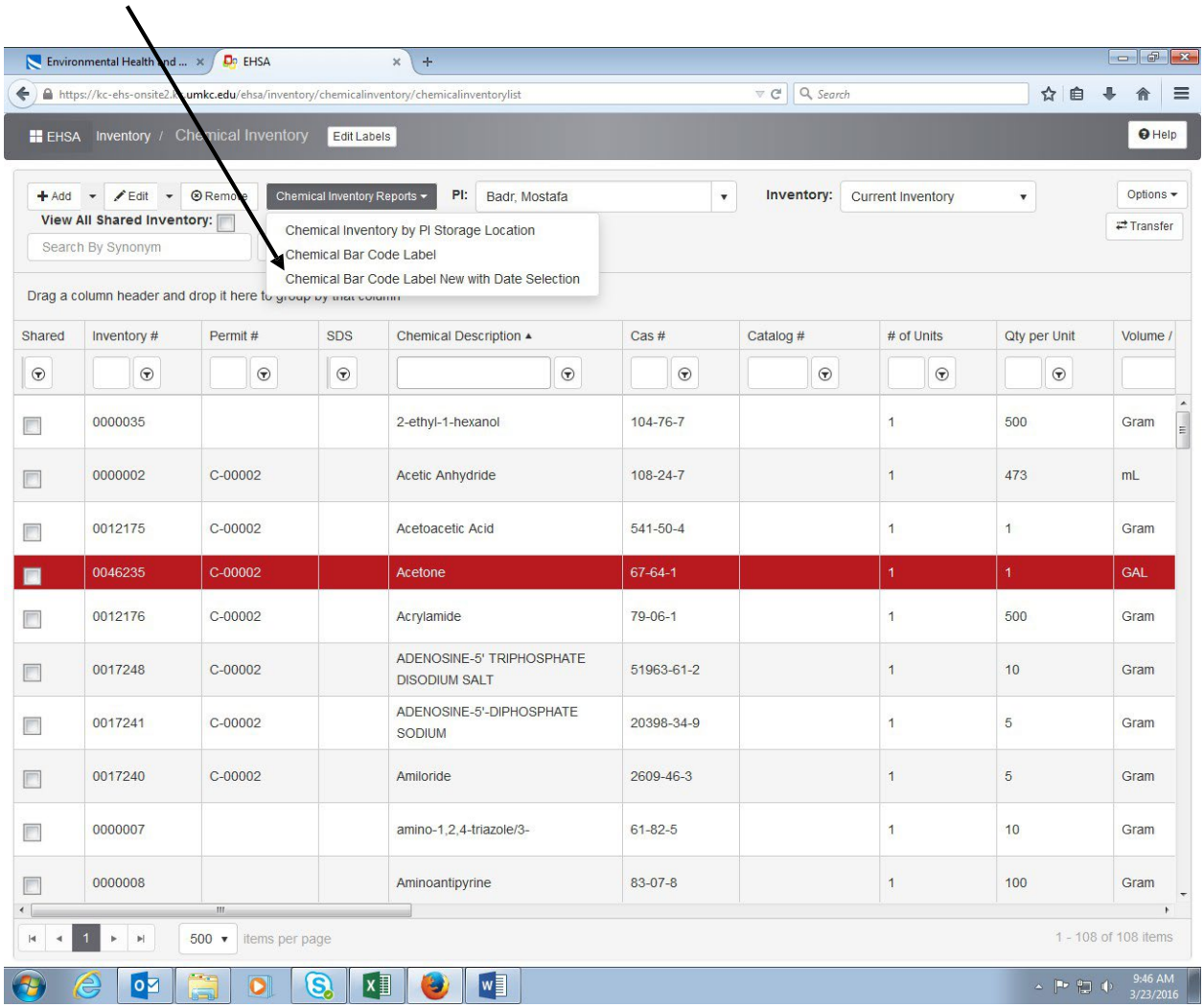
Click Inventory



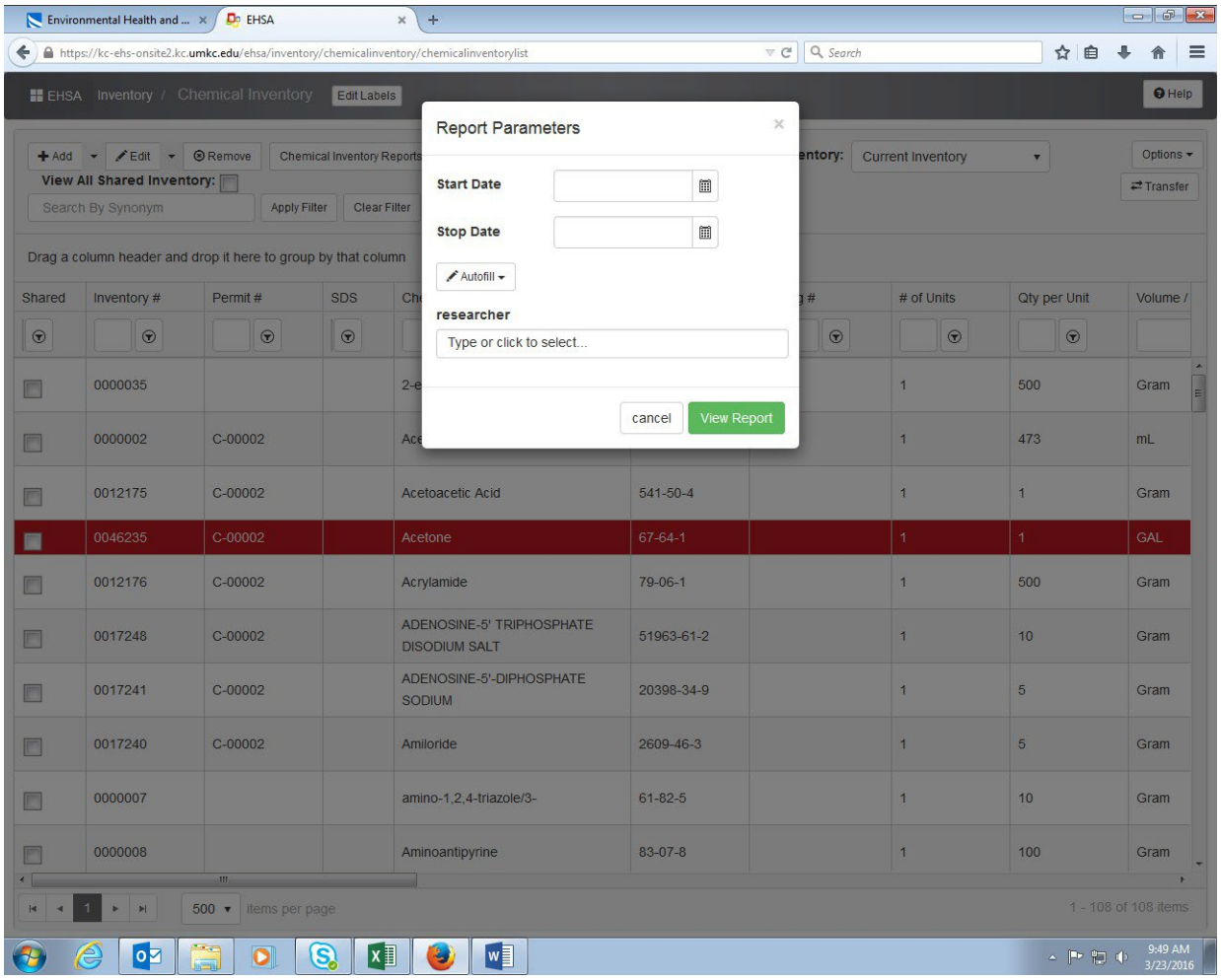
Go to Quick Chemical Entry



Click **the Chemical Inventory Reports** Tab and then Click **Chemical Bar Code Label New with Date Selection.**



-This window will pop up
-Select a range of dates for the new bar codes you want to print then select for which PI and click **View Report**



APPENDIX C

-Hazardous Waste Incompatibility List
-OnSite Storage Requirements
-Campus Building Abbreviations and Addresses
-Training Available to Personnel Handling Hazardous Waste

HAZARDOUS CHEMICAL INCOMPATIBILITY LIST

RGN REACTIVITY GROUP	INCOMPATIBLE WITH
1 Acids mineral non-oxidizing	4-15, 17- 26, 28, 30-34, 101-107
2 Acids mineral oxidizing	3-34, 101-103, 105-107
3 Acids organic	2, 4-5, 7-8, 10-12, 15, 18, 21, 22, 24-26, 33-34, 102-105, 107
4 Alcohols & glycols	1-3, 8, 18, 21, 25, 30, 34, 104-105, 107
5 Aldehydes	1-3, 7-8, 10, 12, 21, 25, 27-28, 30, 33-34, 104-105, 107
6 Amides	1-2, 21, 24, 104-105, 107
7 Amines, aliphatic & aromatic	1-3, 5, 12, 17-18, 21, 24, 30, 34, 104-105, 107
8 Azo compounds, diazo compounds & hydrazines	1-5, 9, 11-13, 17- 23, 25, 30-34, 102-107
9 Carbamates	1-2, 8, 10, 21-22, 25, 30, 104, 107
10 Caustics	1-3, 5, 9, 13, 17-19, 21-22, 24-27, 32, 34, 102-103, 107
11 Cyanides	1-3, 8, 17-19, 21, 30, 34, 25, 103-104, 107
12 Dithiocarbamates	1-3, 5, 7-8, 18, 21, 30, 34, 25, 103-105, 107
13 Esters	1-2, 8, 10, 21, 25, 102, 104-105, 107
14 Ethers	1-2, 104, 107
15 Fluorides inorganic	1-3, 107
16 Hydrocarbons aromatic	2, 104, 107
17 Halogenated organics	1-2, 7-8, 10-11, 20-23, 25, 30, 104-105, 107
18 Isocyanates	1-4, 7-8, 10--12, 20-22, 25,
23 Metals, other elemental & alloys as sheets, rods, drops or moldings	1-2, 8, 17, 102-104, 107
24 Metal & metal compounds, toxic	1-3, 6-7, 10, 26, 30, 34, 102-103, 106-107
25 Nitrides	1-5, 8-13, 17-21, 26-27, 30, 31, 34, 101-104, 106-107
26 Nitriles	1-3, 10, 21, 24-25, 30, 104-105, 107
27 Nitro compounds organic	2, 5, 10, 21, 25, 104-105, 107
28 Hydrocarbons, aliphatic, unsaturated	1-2, 5, 22, 30, 104, 107
29 Hydrocarbons, aliphatic saturated	2, 104, 107
30 Peroxides & hydroperoxides, organic	1-2, 4-5, 7-9, 11-12, 17-22, 24-26, 28, 31-34, 101-105, 107
31 Phenols & Cresols	1-2, 8, 18, 21, 25, 30, 34, 102-105, 107
32 Organophosphates, phosphothioates, phosphodi-	1-2, 8, 10, 21, 30, 34, 104-105, 107
33 Sulfides inorganic	1-3, 5, 8, 18, 30, 34, 102-104, 106-107
34 Epoxides	1-5, 7-8, 10-12, 20-22, 24-25, 30-33, 102, 104-105, 107
101 Combustible & flammable materials, misc.	1-2, 21, 25, 30, 102, 104-105, 107
102 Explosives	1-3, 8, 10, 13, 21-25, 30-31, 33-34, 101, 103-105, 107
103 Polymerizable compounds	1-3, 8, 10-12, 21-25, 30-31, 33, 102, 104-105, 107
104 Oxidizing agents,	1, 3-9, 11-14, 16-23, 25-34,

	30- 31, 33, 104-107
19 Ketones	1-2, 8, 10-11, 20-21, 25, 30, 104-105, 107
20 Mercaptans & other organic sulfides	1-2, 8, 17-19, 21-22, 25, 30, 34, 104-105, 107
21 Metals, alkali and alkaline	1-13, 17-20, 25-27, 30-32, 34, 101-104, 106-107
22 Metals, other elemental & alloys as powders, vapors or sponges	1-3, 8-10, 17-18, 20, 28, 30, 34, 102-104, 106-107
strong	101- 103, 105, 107
105 Reducing agents, strong	1-8, 12-13, 17-20, 26, 31-32, 34, 101-104, 106-107
106 Water & mixtures containing water	1-2, 8, 18, 21, 22, 24-25, 33, 105, 107
107 Water reactive chemicals	ALL

OnSite Storage Requirements

AEROSOL	AEROSOL CONTAINERS - Flammable Gas mixture with liquid - Store with Flammable Liquids in flammable cabinet - Class 3. Note: Contact Chemical Safety for Special Waste Handling Issues.
BIO	BIOHAZARDOUS MATERIAL - SEE BIOSAFETY OFFICE
BLUE	HEALTH HAZARD - Store separately in vented, cool, dry, area away from acids, oxidizers, alkalines, and flammable solvents. Store in unbreakable chemically resistant secondary containers. Segregate incompatibles. Segregate solids and liquids. Toxic if inhaled, ingested, or absorbed through skin. Examples: Cyanides, heavy metal compounds, i.e. cadmium, mercury, osmium, etc.
BROWN	CORROSIVE - ORGANIC ACID - Store separately in acid storage cabinet, away from away from Oxidizing and Inorganic acids, alkalines, toxics, oxidizers, and flammables. Segregate solids and liquids. Never store with Nitric Acid. May harm skin, eyes mucous membranes.
COR-NOS	CORROSIVE - NOT SPECIFIED - as Acid or Alkaline - liquid or solid, do not store with other corrosives.
DESICATE	Water reactive or pyrophoric materials. Store in a closed container with controlled low-moisture atmosphere. May be stored under inert gas such as nitrogen or argon.
DRUG	Drug - regulated by the FDA or DEA, must be kept under lock and key, with limited access. DEAlicensing may be required.
EXPLO	EXPLOSIVE - FORBIDDEN EXPLOSIVE, forbidden unless 30% wetted with water - Contact CSO RESTRICTED EXPLOSIVE - Shock and friction sensitive
GAS	Compressed Gas Cylinders must be labeled according to Hazard Communication Standards, Stored with restraints to prevent falling in accordance with NFPA 45 & 55 codes, and Limited by use/spare for quantity allowed in the lab according to NFPA 45 & 55 Contact CSO at 706-721-2663 for assistance
GRAY	General, Non-Reactive - Store on general shelving preferably behind doors and below eye level of the shortest person in the lab. Chemicals that present no more than a mild to moderate risk in any hazard group (no higher than a 2 in health, fire, or reactivity ratings.
GREEN	Environmentally Hazardous Substance - Store away from municipal water drain lines. Segregate solids and liquids. Store in a separate dry, cool area. Do not dispose wastes down the drain.
LOCKED	Store Locked up
ORANGE	Corrosive Alkaline or Basic - Store in separate corrosive cabinet away from all acids, oxidizers, toxics, and flammables. Store solutions of inorganic hydroxides in labeled polyethylene containers. Segregate Organics & Inorganics, and Solids & Liquids. May harm skin, eyes, and mucous membranes.
R-WSTRIP	Flammable Solid - store away from potential ignition sources such as heat, flames, sparks, etc. Keep away from oxidizers and acids.
RAD	RADIOACTIVE MATERIAL - See Radiation Safety
RED	Flammable or Combustible Liquids - Store in flammable cabinet away from sources of ignition. Store highly volatile or temperature sensitive flammable liquids in Explosion-proof refrigerator. May be harmful when fumes/vapors are inhaled, ingested, or absorbed through skin. Flammable or Combustible Solids - Store in a separate dry, cool area away from oxidizers, corrosives, and flammable liquids. May be harmful if dusts are inhaled, ingested, or come in contact with skin.
REDSTRIP	Flammable Solid, Water Reactive, Class D Extinguisher Required - Store Separately - Contact CSO special storage procedures required.
REFRIG 1	Potential Explosive - Should be stored in an Explosion Proof Refrigerator. Temperature Sensitive, Explosion hazard. High hazard chemical with special precautions. Contact Chemical Safety for specialized training and information for this product.
REFRIG 2	RECOMMENDED REFRIGERATION TO DELAY DECOMPOSITION

RESTRICT	RESTRICTED MATERIAL - SPECIAL APPROVAL REQUIRED FOR PURCHASE - CONTACT THE CSO PRIOR TO BRINGING ON SITE
W&BSTRIP	Corrosive Acidic, Solid. Segregate from Alkaline/Basic Solids, Oxidizing or Reducing agents. White with Black Stripes = Corrosive Acidic Solid
WHITE	Corrosive Inorganic or Oxidizing Acids. Store separately in acid storage cabinet away from Organic Acids, Alkalines, Oxidizers, Toxics, and Flammable or Combustible materials. Segregate Inorganic and Oxidizing acids in secondary chemical resistant containers. Store Nitric Acid Separately. May harm skin, eyes, mucous membranes.
YELLOW	Reactive, Oxidizing, Peroxides, Explosive Reagents, Water Reactive. Store in spill trays inside a chemical storage cabinet, away from acids, alkalines, toxics, and flammable and combustible materials. Store away from ignition or water sources. If the material is water reactive or air reactive, it must be stored in a desiccator. May react violently with air, water or other substances. Shock sensitive materials must be stored away from all other chemicals, preferable in a desiccator.

Campus Building Abbreviations and Addresses

Abbreviation	Building Name	Address
AC	Administrative Center	5115 Oak
ANLB	Animal Facilities Building	1015 E. 50th St.
ANNEX	51st Street Annex Building	301 E. 51st St.
BC	Berkley Child & Family Development Center	1012 E. 52nd St.
BKSTR	University Bookstore	5000 Rockhill
BSB	Biological Sciences Building	5007 Rockhill
BLOCH	Henry W. Bloch School of Business and Public Administration	5110 Cherry
CH	Cockefair Hall	5121 Rockhill
RES-H	Cherry St. Residence Hall	5030 Cherry
RES-H	Oak St. Residence Hall	5051 Oak
DS	School of Dentistry	650 E. 25th St.
ED	Education Building	615 E. 52nd St.
EPP	Epperson House	5200 Cherry
FA	Fine Arts Building	5015 Holmes
GAR	Garage	5444 Troost
EMH	Ernest Manheim Hall	710 E. 52nd St.
GH	Grant Hall	5228 Charlotte
GSB	General Services Building	1011 E. 51st St.
RHFH	Robert H. Flarsheim Science and Technology Hall	5110 Rockhill Rd
HH	Haag Hall	5120 Rockhill
HSB	Health Sciences Building (Hospital Hill)	2220 Holmes
KPB	Katz Pharmacy Building	5005 Rockhill
LAW	Law School	500 E. 52nd St.
MED	School of Medicine (Hospital Hill)	2411 Holmes
MNL	Miller Nichols Library	800 E. 51st St.
NH	Newcomb Hall	5123 Holmes
OMB	Old Maintenance Building	801 E. 51st St.
PAC	Performing Arts Center	4949 Cherry
RH	Royall Hall	800 E. 52nd St.
SASS	Student Academic Support Services	5014 Rockhill
SCB	Spencer Chemistry Building	5009 Rockhill
SH	Scofield Hall	711 E. 51st St.
SRC	Swinney Recreation Center	5030 Holmes
4825T	4825 Troost Bldg.	4825 Troost Ave.
4747T	4747 Troost Bldg.	4747 Troost Ave.
UC	University Center	5000 Holmes
UH	University House	5101 Rockhill

Training available for personnel handling hazardous waste, working in Satellite Accumulation Areas and other Chemical Lab Workers (CLW). Go to EHS homepage and login to HSI to complete trainings.

UMKC Laboratory Safety (All Pharmacy)

UMKC Laboratory Safety (Faculty)

UMKC Laboratory Safety (Non-faculty)

Laboratory Safety – Analyzing Hazards

Laboratory Safety – Working Safely

RAM User Requirement Training

Autoclave Safety Training

Hazard Communication

Laboratory Safety Training

Laser User Training

UMKC Chemical Management Training