



Hazardous Chemical Waste Management

Chemical waste is considered hazardous if it appears on one of the lists of hazardous wastes found in Federal (40 CFR Part 261) or NY State (6 NYCRR Part 371) regulations, or exhibits one or more of the following hazardous characteristics:

- ❖ **Ignitable** - Liquids with a flash point below 140° F; or non-liquids which cause fire, and burn vigorously and persistently
- ❖ **Corrosive** - Aqueous solutions with a pH less than or equal to 2 or greater than or equal to 12.5
- ❖ **Reactive** - Normally unstable and undergoes violent change without detonating; reacts violently with water; forms potentially explosive mixtures with water; produces toxic gases when mixed with water; capable of detonation or explosion
- ❖ **Toxic** – When subjected to a leaching procedure, this waste produces one or more of 39 constituents that pose an environmental hazard (Federal EPA Waste Codes D004-D043)

NEVER DISPOSE OF HAZARDOUS WASTE DOWN THE DRAIN!

Storage:

- ❖ **ALWAYS** mark each container with the words “Hazardous Waste” using a hazardous waste label (see below).
- ❖ **STORE** waste in **LEAK-PROOF, COMPATIBLE** containers which are in **GOOD CONDITION**.
- ❖ Provide enough storage space for **EASY ACCESS** and **VISIBILITY**.
- ❖ **NEVER** accumulate more than 55 gallons of any hazardous waste or more than 1 quart acutely hazardous waste.
- ❖ Keep containers **CLOSED** except when filling.
- ❖ **NEVER** mix reactive or incompatible wastes in the same container.
- ❖ **KEEP** incompatible wastes separated by **DISTANCE** or separate using **SECONDARY CONTAINMENT**.
- ❖ **NEVER** store containers near a sink or floor drains unless stored within proper secondary containment.
- ❖ Provide **SECONDARY CONTAINMENT** for all liquid hazardous chemical waste storage containers.
- ❖ **INSPECT** containers for leaks or corrosion weekly.

Labels for **PROCESS waste (*process waste is chemical waste that has been generated as a result of a process/experiment/procedure/etc.*):**

- ❖ Place a Farmingdale State College **HAZARDOUS WASTE LABEL** on each PROCESS waste container (contact EH&S at x2105 or ehs@farmingdale.edu to request additional labels):

HAZARDOUS WASTE	
<u>CONTENTS</u> (No abbreviations or formulas):	

Storage Start Date: (For EH&S Use Only)	Questions? Call EH&S at x2105
____/____/____	Farmingdale State College <small>State University of New York</small>

- ❖ **DO NOT USE** abbreviations or formulas in place of the full **CHEMICAL NAME(S)**. For example, fully write out “Hydrochloric Acid”, not “HCL” and/or fully write out “Methanol”, not “MEOH”.
- ❖ If the **WASTE IS A MIXTURE**, identify all chemical waste constituents by proper chemical name, including any deactivators/disinfectants used and approximate quantity or concentration.
- ❖ **DO NOT DATE** the labels; that section of the label is reserved for EH&S ONLY once the waste is properly stored.
- ❖ For waste chemicals in their **ORIGINAL CONTAINERS**, a 1” X 2” **FLUORESCENT GREEN** “HAZARDOUS WASTE” label (see below) may be used in addition to the container’s original label (Do not cover original label).

HAZARDOUS WASTE
Storage Start Date (for EH&S Only):
____/____/____

Request for a Hazardous Waste Pickup

- ❖ When your container(s) is FULL, or you need your waste picked up for any reason, please submit a work order through the Physical Plant work order system. To access the work order system, click [here](#). Once in the work order system, select "Moving & Trucking" from the category drop down feature, and then choose "Waste/Hazardous Materials" from the subcategory drop down menu. Please be as descriptive as possible in the "Description" section - tell us the TYPE(S) of waste you need picked up (i.e. acids, bases, flammables, assorted toxics, etc.), how many containers and of what size, etc.
- ❖ **IMPORTANT!** You MUST COPY the EH&S Officer on ALL work order requests involving hazardous waste! Scroll down to the bottom of the work order you're creating and enter carterj@farmingdale.edu in the "E-mail Id(s) To Notify" field.
- ❖ If you have ANY questions at all when completing your work order request, you may CALL the Environmental Health and Safety Officer at (934) 420-2105, or EMAIL ehs@farmingdale.edu (or carterj@farmingdale.edu).

Unknown Waste:

- ❖ All waste **MUST BE IDENTIFIED** before requesting a waste pick-up.
- ❖ If the waste **CANNOT BE IDENTIFIED** by the Generator, contact EH&S for additional information on how to make a proper hazardous waste determination.

Note: *Labels for hazardous waste containers and Request for Pickup of Chemical Waste Forms are available from the Office of EH&S (call x2105 or email ehs@farmingdale.edu to make your request).*

Training:

- ❖ Hazardous Waste Management Training is **required** if you **generate, manage or otherwise handle hazardous chemical waste**. The EH&S Office offers training throughout the year. Please visit the '[Training](#)' section of FSC's Environmental Health & Safety's webpage to determine when a course is available and which training(s) would apply to you. Individual or departmental training can also be requested.

For further information, contact the Office of Environmental Health & Safety
Farmingdale State College, Horton Hall, Farmingdale, NY 11735
Phone: 934-420-2105 FAX: 934-420-9173
In case of an emergency, contact University Police at (934) 420-2111

CHEMICAL SPILL RESPONSE PROCEDURES

REMEMBER: FIRST AID FIRST, THEN ASSESS THE SPILL – Is the Spill Minor or Major?

Minor Spill - Definition	Major Spill - Definition
<p>Less than 1 gallon of a low toxicity chemical or spill involving the following:</p> <ul style="list-style-type: none"> • Less than 20 cc/ml of a highly hazardous chemical (carcinogen, reproductive hazard, or has NFPA/HMIS health rating of 3 or 4) such as formaldehyde or a hazardous drug (mitomycin, cyclophosphamide) • Blood and/or body fluids 	<p>More than 1 gallon of a low toxicity chemical or any spill involving the following:</p> <ul style="list-style-type: none"> • More than 20 cc/ml of a highly hazardous chemical (carcinogen, reproductive hazard, or has NFPA/HMIS health rating of 3 or 4) such as formaldehyde or a hazardous drug (mitomycin, cyclophosphamide) • Unknown chemical or product
Minor Spill Response	Major Spill Response
<ol style="list-style-type: none"> 1. Notify fellow workers in vicinity of spill. 2. Secure area by restricting access and posting signs. 3. Remove any potential ignition sources and unplug nearby electrical equipment. 4. Gather and review safety information on spilled chemical. Review chemical's Safety Data Sheet (SDS) for a hazard assessment and other pertinent information. 5. Locate an appropriate Spill Kit, if available. 6. Don appropriate personal protective equipment (PPE) which usually includes chemical splash goggles, gloves, apron or lab coat. If high splash potential exists, also wear a face shield and protective clothing. 7. Confine and contain spill. Cover spill with appropriate absorbent material. Neutralize acid and base spills prior to cleanup. 8. Clean up spill using a scoop or other suitable item and place material in appropriate disposal container. 9. Decontaminate spill surface with mild detergent and water, as appropriate. Carefully remove PPE, place non-reusable items in disposal container and thoroughly wash hands. 10. Complete a hazardous waste label and affix label to container. 11. Request a waste pickup of the spill debris by contacting EH&S at x2105 or ehs@farmingdale.edu. 12. Investigate cause of spill and review with EH&S. Document spill, response and follow-up with staff. 13. Replenish spill kit, as necessary. 	<ol style="list-style-type: none"> 1. Notify fellow workers and evacuate to a safe area. Post warning signs whenever possible. 2. DO NOT ATTEMPT TO CLEAN A MAJOR SPILL! 3. If spill poses a fire hazard, activate nearest fire alarm. Call University Police at (934) 420-2111 and give details of spill including specific location, chemical, quantity, and if anyone is injured. 4. In case of an injury or chemical contamination: <ol style="list-style-type: none"> a. Wear PPE and move victim from spill area. b. Locate nearest emergency safety shower or eyewash. Remove contaminated clothing and flush affected areas with copious amounts of water for 15 minutes. c. If first aid trained, administer first aid as appropriate. Assist person to seek medical assistance or Emergency Department if warranted for treatment. If possible, bring chemical label or Safety Data Sheet (SDS). 5. University Police may contact EH&S to determine how best to appropriately respond to the spill. 6. Staff knowledgeable about the spill should provide responders with all pertinent information and SDS. 7. The responders or designee will inform staff when it is safe to re-enter spill area. 8. Investigate cause of spill. Document spill response and follow-up with staff to remedy root cause, as applicable. <p>In case of emergency, contact University Police at x2111</p> <p>For all other information contact: Office of Environmental Health & Safety Farmingdale State College, Horton Hall Farmingdale, NY 11735 Phone: 934-420-2105 FAX: 934-420-9173 Environmental Health & Safety (farmingdale.edu)</p>

10 Rules of Lab Safety

1. Understand the Hazards of Your Chemicals

- ☞ Read all labels
- ☞ Read the Safety Data Sheet (SDS)
- ☞ Conduct a *hazard* and *risk* assessment

2. Protect Yourself from These Hazards

- ☞ Always wear proper lab attire when in the lab
- ☞ Always wear nitrile gloves (minimum) when handling chemicals
- ☞ Wear chemical goggles when working with corrosives and safety glasses when handling other chemicals that may splash
- ☞ Always follow all safety rules

3. Keep Your Exposure As Low As Possible

- ☞ Substitute chemicals with less hazardous chemical
- ☞ Use smallest amount of chemical
- ☞ Keep containers closed and covered

4. Use the Fume Hood for Particularly Hazardous Chemicals

[carcinogens, acutely toxic, reproductive, flammable]

- ☞ Make sure hood is working properly before beginning work
- ☞ Follow Fume Hood Use Procedures

5. Keep the Clean, Clean & the Dirty, Dirty

- ☞ Leave Personal Protective Equipment (PPE) in lab
- ☞ Don't touch common items (door knobs, faucets, phone, computer, radio) with gloves
- ☞ Wash your hands often
- ☞ Decontaminate work surfaces at the end of the day

6. Take Required Training

- ☞ Chemical Safety, Biological Safety, Bloodborne Pathogens, Hazardous Waste Disposal, Hazard Communication/Right-to-Know, etc.
- ☞ See schedule: <https://aries.farmingdale.edu/environmental-health-safety/training.shtml>

7. Store Chemicals Properly

- ☞ Label all containers with the name of the chemical
- ☞ Segregate chemicals by hazards
- ☞ Always use secondary containment for liquid chemicals
- ☞ Do not store flammables in a domestic refrigerator

8. Dispose Of Chemicals Properly

- ☞ Do not put hazardous chemicals down the drain
- ☞ Do not use squirt/wash bottles over the sink
- ☞ Use Hazardous Waste Labels
- ☞ Do not mix incompatible waste types
- ☞ Do not allow waste to accumulate over long (>6 months) periods of time

9. Know Where the Emergency Equipment Is & How to Use It

- ☞ Eyewash, shower, fire extinguisher, spill kit
- ☞ Have a plan to shut down lab processes and exit the building during an alarm

10. Report All Accidents