Environment, Health & Safety

EHS Issues

Chemical Inventory

https://lx.mit.edu

› **Inventories must be maintained for all hazardous chemicals.**

- Statistically significant evidence of health effects following exposure
- Flammable and explosive substances

› The **Chemical Inventory Guidance document**

- Identify what chemicals
- The minimum information required to track
- How often it should be updated

Chemical Inventory

https://lx.mit.edu

- **What are my options for storing my inventory information?**
  1. Online inventory system
     CISPro Cloud 

  2. Excel Spreadsheet using EHS inventory template
  3. Local lab system/spreadsheet

- **Chemical Inventory (CISPro Cloud) Training:** http://web.mit.edu/training/course.html?course=EHS00740c

- **Contact the EHS Office at: environment@mit.edu**

Using the EHS Website for EHS Issues

https://ehs.mit.edu/site/

- **Chemical Safety Issues**
  - Safety Data Sheet/ Laboratory Chemical Safety Sheet
  - Storage
  - Spills
- **Other Issues**
  - Laser Registration
  - Laboratory Waste
  - Housekeeping
  - Extension Cords
  - Forms
- **Other Sites**
  - Emergency

Chemical Spills

Advanced planning…know what you have

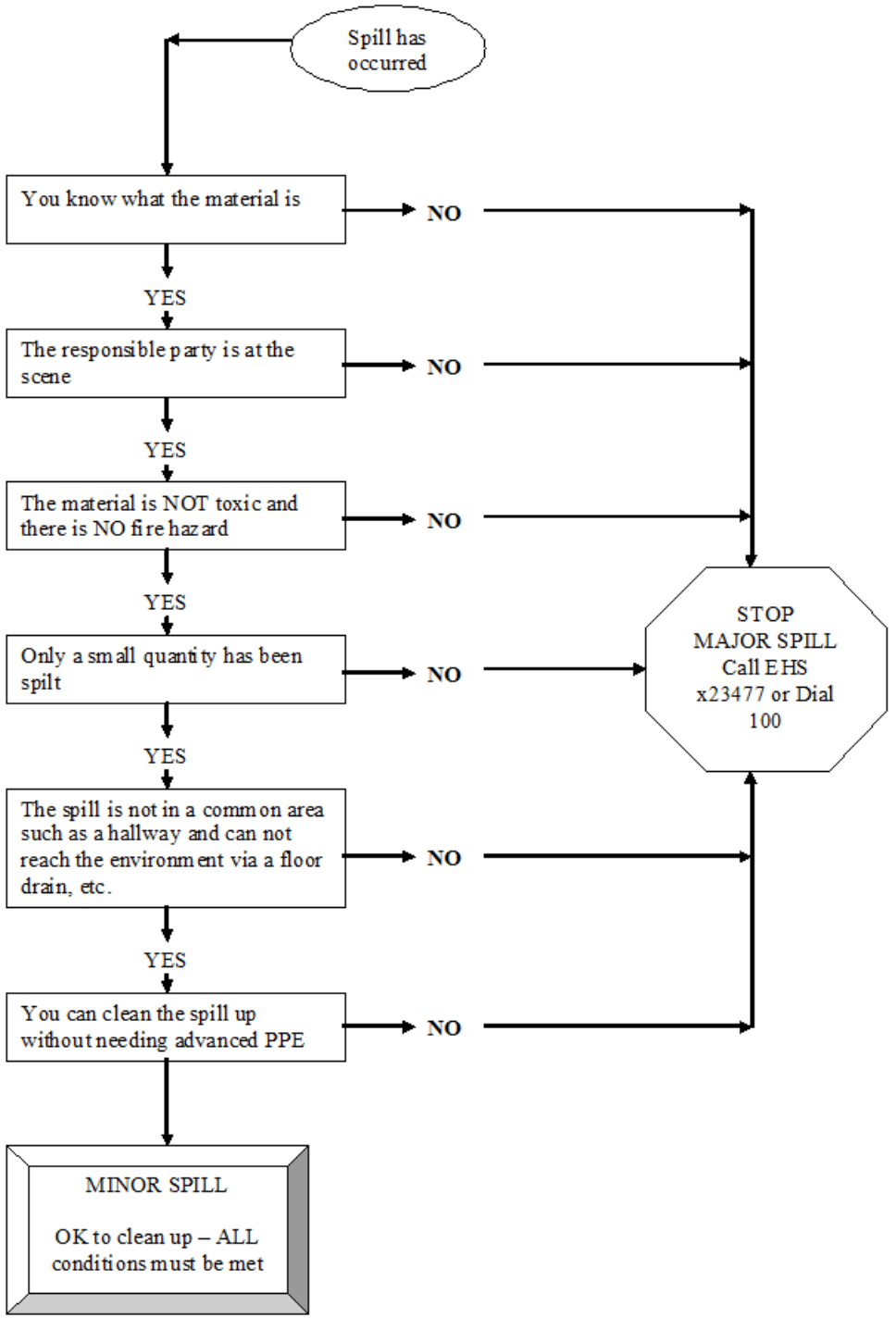
Be prepared

- Spill kits to contain up to a 1 liter spill
- Let personnel know where kits are
- Know how to get an SDS quickly, especially for routinely used liquids

When spill happens, step one is to determine if it is minor vs. major

Chemical Spills Action Flow Diagram

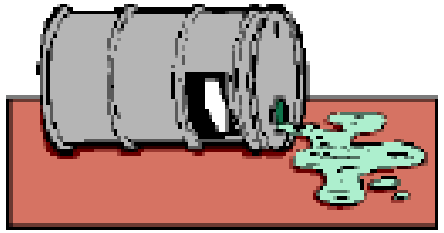
http://ehs.mit.edu/site/content/chemical-spills



Chemical Spills

Major vs. Minor spill

- 500 ml spill acrylic acid in common hallway
- 1 liter spill acrylic acid in lab hood

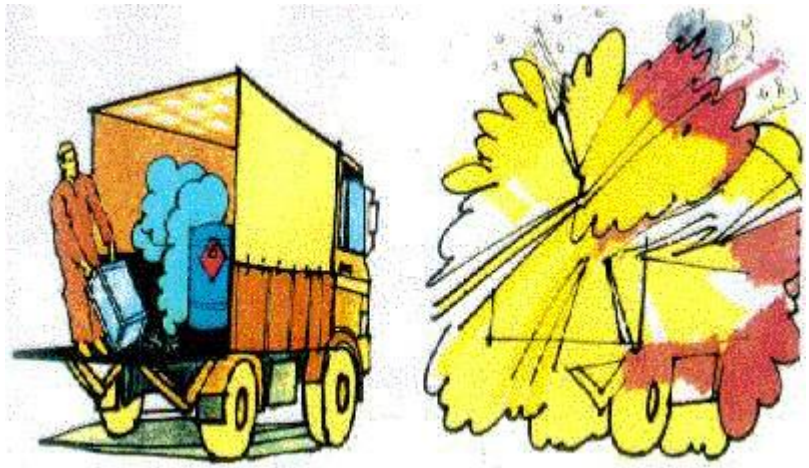


Peroxide Forming Chemicals

- Add inhibitor and pay close attention to expiration dates
- Lab should test containers before use if expiration dates have been reached or containers are no longer wanted
- Examine bottle carefully for possible crystals or particles in bottle or around the cap
  - If </= 20 ppm, place red tag on container, indicate peroxide levels, and request disposal or bring to MAA
  - If **> 20 ppm, contact EHS**
- General Info & EHS SOP can be located on EHS website: http://**ehs.mit.edu**/site/content/peroxide-forming-chemicals-0
- Peroxide test strips available from JT Baker (4416-01) through VWR
- If at any time a researcher does NOT feel comfortable testing the container they should not attempt this and should contact EHS for assistance.

Need to ship a hazardous material?

Contact the MIT EHS Office at 617-452-3477 or at environment@mit.edu
Shipping Website: http://ehs.mit.edu/site/content/hazardous-materials-shipping-mit



LEAKING CONTAINER IN THE LOAD MAY EXPLODE FROM A SPARK.

Hazardous materials or dangerous goods are transported regularly. In order to minimize accidents in transport, shipping regulations need to be followed. Contact the MIT EHS Office at 617-452-3477 or environment@mit.edu for help sending any of the following regulated materials:

- Biological materials
- Chemicals
- Radioactive materials

Warning: Improper shipments of hazardous materials can result in significant fines to the shipper.

Contact the EHS Office to make sure your shipment is correct.

Lab materials are not the only hazardous materials transported. There are many ***miscellaneous "hidden dangerous goods"*** or items that have everyday use but are still regulated in air transport. Contact EHS for these as well. Examples of these items include:

- Batteries, including lithium ion/ lithium metal
- Everyday chemicals-nail polish, nail polish remover, cleaning products
- Lighters, matches, oxygen cylinders
- Magnets and magnetized materials

LITHIUM ION BATTERY EXPLOSION-LAPTOP COMPUTER

Contact the EHS Office for information before making any shipments where there may be a concern.

Resources

If you have questions or ideas for how we can help you, call or email…

- EHS Lead Contact
- EHS Office (2-3477 or environment@mit.edu)
- Copy to your EHS Coordinator

EHS Rep Responsibilities

- Be a resource for EHS issues in the lab…know where they can go to get answers
- Act as a communication link between the PI, EHS, and the lab.
- Update hazards in PI/Space Reg.
- Update emergency contact info
- Help new people complete the Training Needs Profile
- Provide Lab Specific Chem Hygiene Training
- When people leave lab change training status to inactive
- Conduct Level I inspections weekly
- Follow-up on Level II inspection findings