

Chemical Spill Response

Assessing the spill:

Category	Volume	Visual Size	Response	Treatment Materials
Small	<300ml	Up to about 2 feet in diameter	Chemical treatment or absorption	Neutralization or absorption spill kit
Medium	300ml – 5L	Up to about 6 feet in diameter	absorption	Absorption spill kit
Large	> 5 liters	Greater than 6 feet in diameter	Call 911	Outside help

A small or medium-sized spill is one that does not spread rapidly, does not endanger people or property except by direct contact, and does not endanger the environment outside the building.

Cleaning up a small or medium-sized spill:

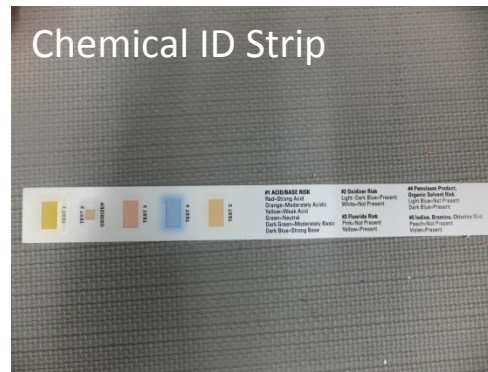
1. Notify co-workers of the chemical spill and evacuate the area of all non-responders.
2. Close off the bay or area using the yellow stands, chain, and chemical spill warning sign. All are located on and by the emergency response cart. Contact a WCAM staff member if one is not present.
3. Retrieve booms and spill pillows from the bay the spill is in or from the emergency response cart.



4. Put on a chemical apron, chemical gloves, and a face shield.

5. From a safe distance place the boom(s) around the spill area to identify the spill area and stop it from spreading.

6. If the identity of the chemical spill is unknown use the chemical spill identification strips in the spill cart by dipping the colored patterns in the unknown chemical spill and using the key to help identify what the chemical is: strong acid, weak acid, strong base, weak base, fluoride present (HF), solvent, etc. Identify the type of chemical and let fellow responders know what the chemical is.



11. If the chemical spill was an acid retrieve the acid neutralizer from the emergency response cart or if the spill was a base retrieve the base neutralizer.

12. Spray the neutralizer from the outside of the spill inward inside the chemical boom area. Do not step inside the boom area. Let the neutralizer work for a few minutes to react and neutralize the chemical. The neutralizer will change colors when it is reacting with the chemical spilt. The neutralization is complete when the color no longer changes.

7. Once the neutralization is complete place the appropriate amount of spill pillows on top of the liquid chemical/neutralizer inside the boom

area. Work from the outside-in of the boom and don't step inside the boom area.



Non-WCAM staff can stop here and wait until a staff member arrives to update them on the situation. WCAM staff put on all corrosives personal protective equipment (PPE): chemical apron, chemical gloves, and face shield, before entering the spill area.

8. **WCAM Staff:** Obtain a heavy duty garbage bag and tape from the emergency response cart. Place the garbage bag in a secondary container in case the chemical leaks or eats through the garbage bag.

9. **WCAM Staff:** Once the chemical/neutralizer is soaked up into the spill pillows carefully place them all into the garbage bag.

10. **WCAM Staff:** Spray some more of the chemical neutralizer everywhere inside the chemical boom area and make sure the color does not change, indicating the chemical has been neutralized and picked up. Use some new spill pillows to wipe up the remaining chemical neutralizer until the floor is dry and carefully place them into the garbage bag. Repeat this step until the neutralizer indicates there is no more chemical to be neutralized by not changing color.

14. **WCAM Staff:** Pick up the boom surrounding the original chemical spill area and discard it into the garbage bag.
15. **WCAM Staff:** Place any other contaminated objects (clothes, PPE, pH strips, chemical spill identifiers, etc.) into the garbage bag.
16. **WCAM Staff:** Close the garbage bag real tight by twisting the top shut and taping it closed.
17. **WCAM Staff:** Place the garbage bag, in a secure secondary container, inside the shop fume hood until the safety department can come get it.
18. **WCAM Staff:** Using clean water, mop and wipe down areas where the chemical spill cleanup occurred.
19. **WCAM Staff:** Discard mop water and remove chemical apron, chemical gloves, and face shield.
20. **WCAM Staff:** Put everything back in the emergency response cart when done and re-order supplies that were used. Remove the yellow poles, chain, and chemical spill warning sign from the spill sight and re-open the area for use.
21. **WCAM Staff:** Fill out a surplus chemicals form available on the UW Safety Department website and affix to the garbage bag/secondary container of chemical spill cleanup waste in the fume hood.

<http://www.ehs.wisc.edu/documents/chem-whtfrm.pdf>

22. **WCAM Staff:** Fill out the online safety department chemical pickup request form and submit: <http://www.ehs.wisc.edu/chemicaldisposalsurplus-chemicalwastesurpluspickuprequestform.htm>

Large Chemical Spill Response:

1. Notify co-workers of the chemical spill and have everyone evacuate the cleanroom immediately. Designate someone to grab the MSDS binders on the corner desk in the gown room on the way out, if possible.
2. Close the cleanroom by putting the yellow chain across the gowning room entrance by the shoe cleaners and display the chemical spill warning sign on the yellow chain.
3. Call 911, answer all their questions, tell them you are at the UW (location is 1550 Engineering Drive, Engineering Centers Building, 3rd floor, room 3039), and stay on the line until they tell you it is okay to hang up.
4. Have someone look for and meet the emergency response personnel. Locate the MSDS for the chemical spilled and show it to the emergency response personnel when they arrive.
5. Contact a WCAM staff member if one is not present and wait for them to arrive to update them on what happened.
6. Let the emergency response personnel do what they need to and once they leave the WCAM staff will clean up the remainder of the spill and/or contact UW Environmental Health & Safety for help.