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Guidelines for Chemical Spill Control

SafetyNet #: 13

General Steps To Follow

1. When 1 pint or more of a hazardous material or any amount of an extremely toxic substance is spilled or when in doubt, **call the UC Davis Fire Department at 9-1-1**. Evacuate the room, close the door, and wait for emergency personnel.
2. If the substance spilled is flammable, turn off all ignition sources before securing the room.
3. In case of chemical contact with skin or eyes, flood the affected area immediately with water; continue for at least 15 minutes. Seek medical assistance at Occupational Health Services located at the Cowell building or the Student Health and Wellness Center for skin irritation, contact with an extremely toxic substance, any eye injury, or any adverse reaction.
4. All contaminated clothing must be removed immediately. Clothes must be laundered before reuse or disposed of as hazardous waste.
5. When incidental to one's duties, small spills (1 pint or less) may be cleaned up by laboratory personnel. It is good laboratory practice to keep spill absorbents on hand. A good, general purpose spill absorbent is available from the Storehouse (Fisher Scientific, Cat. No.: NC9571649, DRIZORB Absorbent). Spill cleanup kits for solvents, acids, bases (caustics), mercury, hydrofluoric acid, and others are commercially available from sources such as J.T. Baker and Lab Safety Supply.
    1. Most strong acids may be absorbed and then neutralized with aqueous solutions of sodium bicarbonate, calcium hydroxide (slaked lime), or sodium carbonate (soda ash). (Note: DO NOT attempt to absorb hydrofluoric acid (HF). Skip this step and neutralize immediately only if you are familiar with proper neutralization procedures for HF; otherwise, return to step one.)
    2. Caustic solutions and flammable liquids may be absorbed with an inert absorbent.
    3. DO NOT attempt to blot cryogenic liquid spills with unprotected hands. Evacuate the space and allow the liquid to evaporate. If the cryogenic fluid evaporates to a flammable, toxic or asphyxiating gas, follow procedures (1) and (2) for large spills.
    4. Formaldehyde spills may be absorbed with an inert absorbent.
    5. For mercury spills, see SafetyNet #16 [1], “Guidelines for Mercury Spill Control”, for more information.
    6. Solid spills are not usually emergencies. If the material spilled is toxic, use dampened cloths or paper towels to transfer it to plastic bags. Brushing dry material may cause dust to become airborne.

6. All absorbed spill material must be collected in double plastic bags or plastic containers with secure lids and disposed of as hazardous waste. See SafetyNet #8 [2], “Guidelines for Disposal of Chemical Waste” for more information. If the absorbent has been used for a flammable or volatile compound, it must be stored in a well-ventilated area away from sources of ignition while awaiting pickup. A fume hood is a good temporary storage area.

Contact

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More information
https://safetyservices.ucdavis.edu/research-safety-staff-listing [3]

Related content

1. Guidelines for Mercury Spill Control
2. Chemical Waste Disposal Guidelines

Links
[1] https://safetyservices.ucdavis.edu/safetynet/guidelines-mercury-spill-control
[2] https://safetyservices.ucdavis.edu/safetynet/guidelines-disposal-chemical-waste
[3] https://safetyservices.ucdavis.edu/research-safety-staff-listing