



Guidance Note

May 2007

Poison Spills

HWG-026

This information is for your use and as a way of providing consistent information. There is no response required.

POISON/TOXIC SPILL PROCEDURE

For poison/toxic chemical spills, the properly trained UCDHSC emergency coordinator should be aware of the following guidelines:

1. Restrict access into the spill area. Consider the potential for personnel exposures to the substance and decide whether the fire department should be called.
2. Use the MSDS or chemical manufacturer's information as a guide. Proper PPE must be worn by the clean up personnel. Do not enter a spill site where the spilled chemical is airborne and readily absorbed through the skin or eyes. A chemically resistant suit must be worn at spill sites where the chemical is present as a gas and is readily absorbed through the skin as in the case of ethylene oxide.
3. For many poison liquid spills charcoal absorbent is acceptable to use. If there is any doubt about the oxidation potential of the spilled chemical use diatomaceous earth (Ultrasorb 248) instead of charcoal. Clean up the spill debris with a plastic shovel or dustpan. Collect the spill debris in a tightly sealed waste container.
4. Make sure that the spill site is properly decontaminated after removing the toxic chemical debris. Wash the spill site thoroughly with soap and water. Floor tiles containing asbestos may have to be removed by an asbestos abatement contractor if chemical odor persists.
5. The room should be cleared with a detector tube before people are allowed to occupy the space. If you do not have a detector tube to clear the room, allow the room plenty of time to properly air out, or use a portable fan.
6. Label the container with a hazardous waste label including the accumulation date. Leave a note on the container indicating circumstances of the spill and notify the hazardous waste manager for proper final disposal.

Poison/Toxic Overview

Poison or toxic chemicals may be a hazard if they are absorbed through the skin or inhaled. Some toxic chemicals have no odor (dimethyl sulfate, metallic mercury) so you cannot rely on your sense of smell to determine whether there is a hazardous atmosphere present. Olfactory fatigue may also reduce your ability to smell chemicals after a period of time (hydrogen sulfide).

It is important to read the MSDS of every spilled chemical before you respond to a spill so that a proper determination can be made regarding its toxicity. For example, dimethyl mercury is readily absorbed through the skin, and one or two drops of this chemical are sufficient to kill you (within several months, no treatment available).

Some toxic chemicals (phenol or nitrobenzene) are readily absorbed through the skin and dilute solutions may have an anesthetic effect.

Common Poison Liquids

acrolein, acrylamide, allyl alcohol, aniline, benzenethiol, benzyl chloride, bromine, carbon tetrachloride, cyanogen bromide, chloroform, cresol, crotonaldehyde, cyanides, dimethyl sulfate, 2,4-dinitrophenol, formaldehyde, glutaraldehyde, hydrazine, most isocyanates, methylene chloride, monofluoroacetic acid compounds, mercaptoethanol, mercury compounds, nicotine, osmium tetroxide, phenol, sodium azide, sulfides, thallium compounds, uranium compounds, urethane, etc.