Safety Note #140

CHEMICAL SPILL RESPONSE GUIDELINES

When chemical spills occur, there is a risk of injury to yourself or others, damage to property, and potential environmental damage. Even small spills can have significant consequences if not taken care of promptly and properly. California Code of Regulations (8 CCR 5194(h)) requires employers to provide effective information and training on hazardous substances in the workplace, including appropriate work practices, emergency procedures, and protective equipment to be used. This Safety Note serves as the written spill response plan for most ANR laboratory, shop, and fieldwork settings. Some more complex laboratory operations may require a Chemical Hygiene Plan, which would include more specific spill procedures. Any employee who works with chemicals or may be expected to respond to a spill should be trained on the procedures included in this Safety Note and any site- or chemical-specific procedures for your workplace.

Preparing for Spills

Have a Safety Data Sheet (SDS) for all chemicals you are using. Read the SDS before starting a new procedure and have a copy of the SDS available should you need to refer to it. In the case of pesticides you may use the pesticide label information in lieu of a SDS. Pay particular attention to requirements for personal protective equipment, chemical-specific spill or emergency response procedures, and disposal requirements. For routine procedures, it is recommended to periodically review the SDS to refresh your knowledge.

Any ANR workplace that stores or uses chemicals, including laboratory, shop, field or other operations, should maintain a spill response kit. A basic spill kit should include the following:

- General purpose chemical-resistant gloves (such as nitrile)
- Safety goggles
- Small broom or brush
- Small dustpan
- Paper towels
- Absorbent material (absorbent pads and dry absorbent such as cat litter)
- Trash bags

The above items may be assembled in a small trash can or similar container and placed in the laboratory, shop, or chemical/pesticide storage area. Pre-packaged spill kits are also available from various vendors. It is recommended to have a spill kit for each area where chemicals or hazardous materials are stored or used and for use in the field, as appropriate.

Assessing the Spill

Before responding or beginning to clean up a chemical spill, consider your own safety and the safety of others. Make sure you have the proper supplies and protective equipment. If the spill is too large for you to manage safely, evacuate the area, call 911 and wait for emergency personnel. If the spilled material requires a respirator for normal use (such as a pesticide) and you are trained and fitted for respirator, then you should wear the respirator for cleanup. If you are not trained and fit-tested for using a respirator and the SDS or label state that respiratory protection is required, then evacuate the area immediately and call 911.

Procedures for Spill Cleanup

- If spilled material is flammable, turn off any ignition sources.
- Wear gloves, safety goggles and any other personal protective equipment required by the SDS.
- Cover spilled material with absorbent pads or dry powder absorbent.
- Small spills of acids may be neutralized using sodium bicarbonate (baking soda).
- When using dry powder absorbent, begin at the outer edges of the spill and sweep toward the center and pick up material with dustpan.
- Or, when using absorbent pads, pick up the saturated pads.
- Absorbed materials must be bagged for disposal. See Policies and Procedures for Storage and Removal of Regulated Waste to determine if materials are considered Hazardous Waste and information about proper labeling, storage and disposal.