

# Floor sealing

## Explain dangers

Workers have been killed and critically injured when they apply coatings to floors in basements and other enclosed areas.

Hazards include flash fires and explosions, sensitization, and asphyxiation.

Most coatings contain petroleum products that are extremely flammable. Applying these coatings with a spray or roller can create an explosive atmosphere.

Some coatings may contain isocyanates, which are irritants that can be absorbed through the eyes, skin, and lungs. They can cause respiratory sensitization and asthma.

A worker can become sensitized at any time from inhaling or getting isocyanates on the skin. After that, any exposure can lead to a very severe asthma attack. Isocyanates on the skin can cause skin irritation as well.

Many floor coatings, adhesives, and sealants are also toxic and can cause asphyxiation. This means that your body cannot get enough oxygen to survive. Asphyxiation can make you lose consciousness and die.

Two causes of asphyxiation are:

1. Oxygen in the air you breathe has been reduced by the products you are using.
2. The products have poisoned your blood so that it cannot carry oxygen through your body.

## Identify controls

### WHMIS

- The Workplace Hazardous Materials Information System (WHMIS) is your first line of defence. Read the WHMIS label on the product you are using to learn the hazards.
- **Important information is available on the safety data sheet (SDS) that comes with the product.** Learn about the health effects, the ways to control exposure, and the handling and storage procedures.
- The SDS will list the proper type of personal protective equipment (PPE) to use when

handling the product. It may include: a supplied-air respirator; impermeable gloves (e.g., neoprene); eye protection (e.g., chemical goggles); and coveralls or other clothing to protect the skin.

- Keep the area clear of workers who are not protected by PPE. Use barriers and warning signs if necessary.
- Follow good hygiene practices—wash hands and face before eating, drinking, or smoking.

### FIRE

- Most of these products are flammable, so make sure that any ignition sources in the work area are turned off.
- Never smoke when applying floor coatings. Air contaminated by coatings can also be ignited by pilot lights on gas appliances or furnaces and sparks from electric switches.
- Always have adequate fire extinguishers available in proximity to the hazards. Fire extinguishers must meet the Underwriters Laboratories of Canada rating of at least 4A40BC.
- Store materials in tightly sealed containers when not in use.

### VENTILATION

When laying or finishing floors in residential basements:

- **Test**—Make sure that the basement atmosphere is not toxic, oxygen-deficient, oxygen-enriched, or flammable. Testing should be done by someone competent to use the appropriate testing equipment.
- **Ventilate**—Open doors and windows and, if necessary, use fans to exhaust and clear the air.
- **Monitor**—Keep testing the atmosphere as long as people are working there.

## Demonstrate

With your crew, review the information on the WHMIS label and SDS for a coating or other product you typically use on the job.

Ask workers if they have received WHMIS training. If not, arrange for them to take it.