

Some substances give off distinctive odours which can alert workers to the presence of a hazardous chemical. For example, hydrogen cyanide has a smell of bitter almonds. However, not everyone can smell hydrogen cyanide and higher concentrations of hydrogen cyanide can also overload nasal receptors resulting in workers being unable to detect it. Hazardous chemicals can also have no odour. Thus, odour should not be relied on as a means of detecting the presence of hazardous chemical.

The chemical and physical properties are also important in assessing risks from physicochemical hazards, described later in this chapter.

#### **DETERMINING WHO COULD BE EXPOSED, AND WHEN THIS COULD OCCUR**

Workers can come in contact with a hazardous chemical and any waste, intermediate or product generated from the use of the substance if they:

- work with it directly
- are in the vicinity of where it is used or likely to be generated
- enter an enclosed space where it might be present
- disturb deposits of the substance on surfaces (for example, during cleaning) and make them airborne
- come into contact with contaminated surfaces.

You should consider all people at the workplace, including those who may not be directly involved in using, handling, storing or generating a hazardous chemical, such as:

- ancillary or support/services workers (be aware that cleaners, maintenance and laboratory staff are often exposed to both the hazardous chemicals they use in the course of their work, such as cleaning products, and the hazardous chemicals used in the workplace by other workers)
- contractors
- visitors
- supervisors and managers.

You should consider:

- how specific tasks or processes are actually carried out in the workplace (for example, decanting, spraying, heating). By observing and consulting workers you can find out if they are not adhering strictly to standard procedures or if procedures are not adequately providing protection to workers.
- the quantity of the chemicals being used. Use of larger quantities could result in greater potential for exposure
- the risk controls in place and their effectiveness. For example, a ventilation system may be in use but when poorly designed, installed or maintained it may not achieve the correct level of protection (such as if filters are not regularly cleaned),
- whether each worker's work technique has a significant bearing on their level of exposure – poor techniques can lead to greater exposure
- workers who may be working alone with hazardous chemicals and if any additional precautions or checks may be necessary in case they become incapacitated.