

## Health and Safety Office Hazard Guides: No 4

### Chemical and biological hazards and their control

#### **General description of hazards**

Using chemicals or other hazardous substances at work can put people's health at risk. Effects from hazardous substances range from mild eye irritation to chronic lung disease or, on occasions, death. They can cause skin irritation through skin contact, asthma after developing an allergy to substances, losing consciousness after being exposed to toxic fumes or vapours, contracting cancer, or infection from bacteria, viruses and other micro-organisms.

The Self-reported work-related illness survey 1995 indicated that there are 200,000 cases of lower respiratory disease and 66,000 cases of skin disease. In the majority of cases, that ill-health is associated with exposure to chemicals. Employers who fail to control hazardous substances adequately risk their employees or others becoming ill as a direct result.

#### ***April 2005 - New approach to good practice and occupational exposure limits (OELs) under COSHH Regulations***

From April 2005, the existing requirements to follow good practice are being clarified by the introduction of eight principles, which will apply to the protection of people at work regardless of whether a chemical or other substance has been assigned an occupational exposure limit. The principles are:

- Design and operate processes and activities to minimise emission, release and spread of substances hazardous to health;
- Take into account all relevant routes of exposure – inhalation, skin absorption and ingestion – when developing control measures;
- Control exposure by means that are proportionate to the health risk;
- Choose the most effective and reliable control options which minimise the escape and spread of substances hazardous to health;
- Where adequate control of exposure cannot be achieved by other means, provide, in combination with other control measures, suitable personal protective equipment;
- Check and review regularly all elements of control measures for their continuing effectiveness;
- Inform and train all employees on the hazards and risks from the substances with which they work and the use of control measures developed to minimise these risks;
- Ensure that the introduction of control measures does not increase the overall risk to health and safety.