

## Factsheet: Hazardous Substances

### Legislation

The Control of Substances Hazardous to Health Regulations 2002 (COSHH)

### Introduction

Most businesses use substances and some processes create substances which may cause harm to those people exposed to them. A hazardous substance may be in the form of liquid, solid, dust or powder, gas, vapour or fume, or a biological hazard, such as bacteria or viruses.

Exposure to hazardous substances may cause acute (short-term) or chronic (long-term) illnesses, such as cancer, asthma or skin disease. The risk is higher in cases of prolonged or repeated exposure.

*This factsheet does not refer to lead, asbestos or radioactive substances, which are regulated by their own specific regulations.*

### What is a substance hazardous to health?

Any substance in the workplace which creates a risk to health, either because of its composition or the way it is used, or both. This includes dust (of any kind) above certain concentrations in the air and biological agents.

The most common route into the body for a hazardous substance is by inhalation, but exposure can also occur via the skin, through ingestion, or through soft membranes such as in the eyes.

### What the law says

- All substances hazardous to health must be subject to a risk assessment, carried out by a competent person. This is commonly referred to as a COSHH assessment, or COSHH risk assessment.
- Measures must be put in place to prevent or control exposure. Those control measures must be maintained, examined and tested.
- Where required, exposure must be monitored and health surveillance carried out.
- Information, instruction, training and supervision must be given to all employees.

Control measures must be applied according to the hierarchy of controls: that is:

- **Eliminate** the harmful substance altogether
- **Substitute** the substance with a safer alternative (eg a paste rather than a powder)

- **Design** work processes and engineering controls to minimise emission
- **Control** exposure at source
- Provide **PPE**

## What you can do

- Assess your use of hazardous substances and determine whether any can be eliminated or substituted, without creating risk elsewhere.
- Use the manufacturer's safety data sheet (SDS) together with your knowledge about the way in which the substance is used (for example by whom, in what quantities, for what duration, etc) to carry out suitable and sufficient COSHH risk assessments on all substances used or produced.
- Examine your processes to determine whether improvements can be made to reduce the quantity of substance used or emitted at your workplace. It is more effective and usually cheaper to reduce the emission of a contaminant at source than to develop ways to remove the contaminant once it has been released and dispersed.
- Determine and implement control measures to reduce exposure to your employees. These may include enclosure or isolation of processes, and local extraction of fumes / vapours / dusts. Personal exposure may be reduced by job rotation or a change in shift patterns.
- Use PPE and RPE (respiratory protective equipment) if appropriate. Remember all relevant routes of exposure, not just inhalation. Ensure that all PPE and RPE is suitable for purpose – a specific RPE assessment may be required if exposure is likely through inhalation.
- If RPE is selected, ensure that it is suitable for its wearers. Face fit testing is likely to be appropriate to ensure maximum protection. RPE must be maintained and stored correctly.
- All relevant people must be trained in the use and maintenance of control measures. Additionally, the effectiveness of control measures should be checked regularly. Documentation of checks and maintenance must be retained.
- Employees must be informed and trained on the hazards and risks from the substances with which they work.
- Provide facilities for washing, changing, eating and drinking. This will help ensure that employees maintain a personal hygiene standard which will avoid the spread of hazardous substances and reduce the risk of ingestion.
- Your risk assessment may indicate that you need to carry out monitoring at your workplace. This may take the form of air monitoring, or personal biological monitoring. Health surveillance of employees may also be appropriate.