

**England, Wales and Scotland**  
Control of Substances Hazardous  
to Health (COSHH) Regulations  
2002

**Northern Ireland**  
Control of Substances Hazardous  
to Health (COSHH) Regulations  
(Northern Ireland) 2003

Asbestos and lead are covered by separate regulations. Additional regulations may apply if you manufacture, import, transport or formulate chemicals. Be sure to follow any additional applicable regulations.

# Harmful Substances in the Workplace

Many materials or substances used or created at work could harm your health. These substances could be dusts, gases or fumes that you inhale or liquids, gels or powders that come into contact with your eyes or skin. There could also be harmful micro-organisms present, such as bacteria that are toxic and can cause infections or allergic reactions.

Harmful substances can be present in anything from paints and cleaners to flour dust, solder fume, blood and waste. Ill health caused by these substances used at work is preventable. Many substances can be harmful to your health, but if used properly, they rarely do.

## What are the hazards?

Some substances can cause asthma or other diseases, including cancer. Many can damage the skin, and some can cause serious long-term damage to the lungs.

The effects can be immediate, such as dizziness or stinging eyes. But some effects can take many years to develop, such as lung disease. Many long-term or chronic effects cannot be cured once they develop.

## What do I have to do?

The law requires you to adequately control exposure to materials in the workplace that cause ill health. You should include the following control measures:

- Identify which harmful substances may be present in the workplace.
- Decide how workers might be exposed to harmful substances, and how they might be harmed.
- Look at the measures you have in place to prevent this harm and decide whether you are doing enough.
- Provide information, instruction and training for employees so they can understand the dangers of harmful substances and avoid exposure.
- Provide health surveillance if appropriate or necessary.

## Carrying out a COSHH Risk Assessment

A COSHH assessment concentrates on the risks from hazardous substances in your workplace.

Remember that health hazards are not limited to substances labelled as 'hazardous'. Some harmful substances can be produced by the process you use, such as wood dust from sanding or silica dust from tile cutting.

### Identify the hazards

- Identify which substances are harmful by reading the product labels and safety data sheets (SDS).

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- If you are in doubt about whether a substance is harmful, contact your supplier.
  - Remember to think about harmful substances produced by your processes, such as when cutting or grinding.

#### **Decide who might be harmed and how**

- How might workers be exposed? Think about how the substance can enter the body (for example, inhalation, ingestion or skin absorption) and the effects of such exposure.
- Think of how often people work with the substance and for how long.
- Think about anyone else who could be exposed. Don't forget maintenance workers, contractors and other visitors or members of the public. Also think about people who could be exposed accidentally, such as while cleaning.
- Think about what could happen if controls fail.

#### **Evaluate the risks and decide on precautions**

Once you have carried out a risk assessment and identified which harmful substances are present and how workers can be harmed, you need to think about preventing exposure.

- Do you really need to use a particular substance, or is a safer alternative available?
- Can you change the process to eliminate the use or production of a particular substance? If this is not possible, you **must** put adequate control measures in place to reduce exposure.

The control measures you adopt could include the following:

#### *Changing the process to reduce risks*

- Consider whether you can change the process you use to reduce the risk of exposure. For example, you could lower the temperature of a process to reduce the amount of vapour getting into the air, or use pellets instead of powders because they are less dusty.

#### *Containment*

- Enclose the process or activity as much as possible to minimise the escape or release of the harmful substance.
- Use closed transfer and handling systems and minimise material handling.
- Extract emissions of the substance near the source.

#### *Systems of work*

- Restrict access to systems, equipment and storage so that only those people who need to be there or use the equipment are allowed to.
- Use appropriate containers for material storage. Check that the containers are correctly labelled and that incompatible materials, such as acids and caustics, are separated.
- Store and dispose of waste properly.

#### *Cleaning*

- Exposure to hazardous substances can occur during cleaning, so organise the workplace so that it can be cleaned easily and effectively.
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- Have the right equipment and procedures to clear up spills quickly and safely.
  - Clean regularly using a dust-free method. For example, vacuum instead of sweeping.

If you have five or more employees, you must record your assessment—although even if you have fewer than five, it makes sense to write down the steps you have taken to identify the risks. One of the most important records to keep is a list of the actions you have taken to control the risks to workers' health.

The risk assessment should be regularly reviewed to ensure that it is kept up to date and takes any workplace changes into account.

## Maintaining Adequate Controls

All elements of your control measures must be checked and reviewed regularly to make sure they continue to be effective. These checks should be adequate to determine whether improvements are required and should include the following:

- All ventilation equipment must be examined and tested regularly by a competent person (someone who has the necessary skills, knowledge and experience to carry out the work safely). This may involve measuring the airflow or the pressures in the system, or air sampling in the workroom. In general, all local exhaust ventilation (LEV) equipment must be examined and tested every 14 months.
- Systems of work must be followed, and revised if they are not working.
- Personal protective equipment (PPE) must be suitable, used correctly, properly fitted and (where appropriate) maintained. Don't depend only on PPE as a control measure—it may not be as reliable or effective as other measures.

You may need specialist advice, particularly for potentially serious risks or processes that are difficult to control, from someone who is competent in that area of work.

## Information and training

- Make sure employees understand the outcome of your risk assessment and what it means for them. Tell them what the hazards and risks are, any workplace exposure limits, and what they need to do to protect themselves.
- Inform employees of the results of any monitoring of exposure and the collective results of health surveillance.
- Use the information contained in SDS and other sources of information to train and inform employees.
- Make sure employees know what to do if there is an accident or emergency.
- Involve your workers in developing control measures to ensure that they are suitable for the way the work is carried out. Encourage workers to suggest improvements, and to report anything they think might be going wrong.
- Train employees in the correct use of controls and PPE.
- Make sure that contractors who come into your workplace know what the risks are and how you are controlling them. In addition, find out whether



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they are bringing hazardous substances onto your premises, and how they will prevent harm to your employees.

- Keep basic training records.

## Monitoring Exposures and Health Surveillance

As well as controlling exposure to substances hazardous to health, you need to be aware that legal limits have been set on the amounts of many of the substances that can be present in the workplace. These are known as workplace exposure limits (WEL). A list of WELs can be found at [www.hse.gov.uk/pubns/priced/eh40.pdf](http://www.hse.gov.uk/pubns/priced/eh40.pdf).

Health surveillance may be necessary depending on the type of substances employees are exposed to. Health surveillance is any activity which involves obtaining information about employees' health and which helps protect employees from health risks at work. It could be a regular, planned assessment of one or more aspects of a worker's health, such as lung function or skin condition. However, it is not enough to simply carry out suitable tests, questionnaires or examinations. Employers must also have the results interpreted and take action to eliminate or control exposure.

## Case Study

Scenario	How to Prevent the Incident
A hairdresser was diagnosed as suffering from irritant contact dermatitis caused by wet work. His hands were painfully itchy, and they would also scab over and bleed.	<p>The employer introduced a hand-care regime. This includes wearing suitable gloves when washing clients' hair and using chemicals. Employees understand about good hand care, including washing chemicals from their skin promptly, drying their hands thoroughly and moisturising them throughout the day. The staff should have regular skin checks to make sure any problems are spotted and treated early on.</p> <p>These measures have helped control the dermatitis and allowed the hairdresser to continue working in the job he loves.</p>