



**COSHH: Control of  
Substances Hazardous to Health**

**Module 5**

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Health & Safety  
**Essentials**

Registered charity number 207890

# Factors that influence the control approach

## Objective:

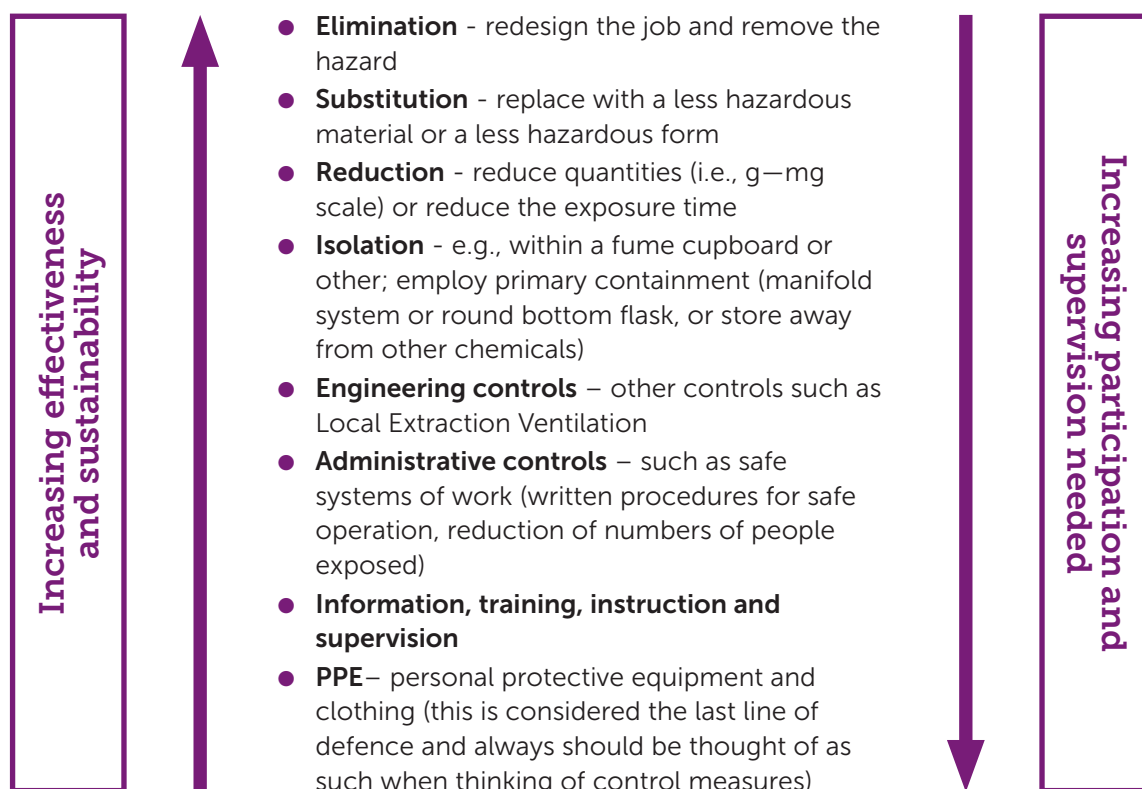
In this module, you will learn what constitutes adequate control of potential exposure. This means the design and use of appropriate work processes, systems and engineering controls as well as providing and using suitable work equipment and materials.

The principles of adequate control are defined under COSHH; in summary, these are:

- control exposure at the source by minimising emission and spread
- take into account all exposure routes
- control risk by the most effective measures proportionate to health risk
- use Personal Protective Equipment (PPE) where adequate control cannot be achieved by other means
- provide information and training
- ensure that control measures do not increase the overall risk
- provide arrangements for safe handling, storage, use and transport of hazardous substances and waste materials
- reduce to a minimum the number of employees exposed, the level and duration of exposure and any quantities stored in the workplace

**The objective of COSHH is to prevent, or adequately control exposure to substances hazardous to health so far as reasonably practicable in order to prevent ill health.**

In order to achieve adequate control, the following hierarchy of options should be considered:



Questions to ask:

- Do I need to use this chemical? If yes, then:
- Can I reduce my exposure by lessening the potential exposure: for example, by buying the reagent already prepared, or by using a pelleted form of the chemical rather than a powder?
- Can I distance/isolate myself from the chemical by, for example, using it in a glove box or in a fume cupboard?
- Can I write procedures or methods that provide information designed to explicitly minimise exposure?
- Is there a risk that can only be controlled by personal protective equipment? If so, consider the type and duration of contact (splash, immersion), consider the user (size and comfort), consider the task and consider how the protective equipment works together as a control measure.
- However, we should **always** wear safety spectacles as a **minimum** requirement at all times whilst in the laboratory.
- What training and information is needed to underpin all the preceding controls?

Consideration should also be given to:

- Individual susceptibilities
- Age
- Pregnancy
- Working alone (have a code of practice for working alone /lone worker alarm)

## Learning assessment 4

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### 1. Selection of Control Measures

Let's take the example of killing the weeds on your pathway at home using a generic weed killer (herbicide): sodium chlorate. How do we go about working out what the risk is and how to protect ourselves?

Note: A proprietary herbicide would usually have instructions on use and precautions. In such cases as this (not in the workplace), a COSHH Assessment would not be required. As such, you should carefully follow the manufacturer's instructions.

Select the three most appropriate measures from the following list.

Using the COSHH hierarchy, assign the numbers 1, 2 or 3 to the following options, with 1 being the most important.

1. Wear gloves
2. Keep pets and children indoors
3. Use a spray applicator
4. Wash hands after use
5. Read the label
6. Choose an alternative weedkiller

Check your answers on the separate answer sheet.



## 2. Hierarchy of control measures

For a typical experiment in the laboratory, arrange these control measures in the order of the COSHH Hierarchy of Control Measures by assigning numbers from 1-8 to each option to indicate its position in the hierarchy.

Arrange these in the order of the COSHH Hierarchy of Control Measures by assigning numbers from 1-8 to each option to indicate its position in the hierarchy.

1. Work in a fume cupboard
2. Write an experimental protocol
3. Keep the chemicals in a secure cabinet
4. Outsource the assay
5. Have an annual lung function test
6. Wear safety spectacles
7. Supervise new members of staff
8. Weigh the chemical in a weighing cabinet

Check your answers on the separate answer sheet.

