

Chemicals in Further Education and Training (FET)

This information sheet is written for FET staff and students to raise awareness about the safe management of chemical hazards and to enable students / apprentices to recognise hazards and protect themselves during their training and future careers.



What chemicals are found in FET?

Further Education and Training (FET) centres often use chemicals for education and training, or they may be found in the building's materials, such as:

- Paints
- Sprays
- Preservatives
- Adhesives
- Cleaning and maintenance products
- Cutting fluids
- Resins
- Fluxes
- Pottery glazes
- Oxyacetylene gas
- Argon gas
- Cosmetic products
- Radon
- Asbestos

Chemicals can be:



Solids

(e.g. wood dust, cement, silica dust)



Liquids / Mists

(e.g. petrol, bleach, paints)



Fumes

(e.g. soldering, welding and engine exhaust fumes)



Gases / Vapours

(e.g. carbon monoxide, paint vapours)

How do I get exposed to chemicals, and what harm do they cause?



Hazardous chemicals are not just on the shelf!

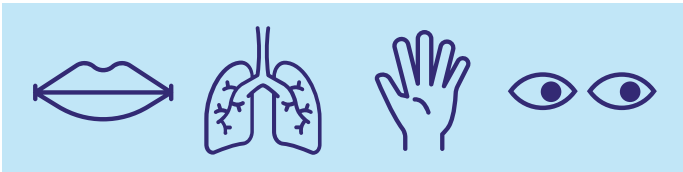
Chemicals also include those that can be created during a work activity, or they can also be generated as a waste product. For example:

- Wood dust
- Silica dust
- Welding fumes
- Asbestos

Any chemical that causes harm is referred to as a hazardous chemical and needs to be risk assessed!

Chemical exposure can occur if:

- swallowed, inhaled or injected; or
- if they come into contact with the skin or eyes.



The severity of the harm chemicals can cause depends on several factors that must be considered during risk assessment.

These include:

- how dangerous the chemicals are; and
- how long and how often you are exposed to them.

Unsafe use of chemicals can cause fires, explosions and spontaneous combustion, skin and eye irritation, ill health and other serious injuries to you, your employees, students and visitors.



Top tip!

The Safety Data Sheet (SDS) will tell you important information about chemicals you purchase. You can get it from your supplier.



Wood dust

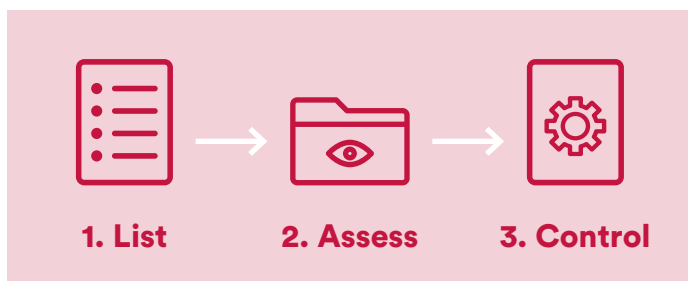


Silica dust



Welding fumes

How do I manage chemical hazards?



1 Make a list

A list (chemical inventory) of the chemicals you use or generate (e.g., dusts).

The inventory might include:

- where and how much are stored,
- what it is used for,
- how it can cause harm (from label or SDS), and
- supplier details.

2 Assess the risk

Look at each chemical and consider the following:

- How is it used or generated (e.g., sprayed, poured, painted)?
- How often and for how long is the chemical used?
- Who and how many people use the chemical?
- Could pregnant or young people be exposed?
- How could someone be exposed (e.g. by breathing in or skin contact)?
- How much is used, stored and disposed of?
- Could people nearby be exposed?
- What control measures are in place and are these enough?
- Where is the chemical delivered on-site, and how and when is it moved to storage?
- What first aid measures (e.g., eye wash) and spill kits are available?
- How is chemical waste disposed of?

3 Control the risk

New control measures might be needed to reduce the likelihood of harm.

For example:

- Not using the chemical anymore.
- Replacing the chemical with a less harmful one.
- Using a fume cupboard or Local Exhaust Ventilation (seek expert advice).
- Providing training.

Reading the label and Safety Data Sheet (SDS) will guide you on:

- handling,
- storage,
- emergency measures, and
- appropriate PPE.



Chemicals generated, e.g., dusts and fumes, and cosmetic products do not have labels or Safety Data Sheets but must be risk assessed

How do I protect future workers?

Apprentices, students, and new employees may be at an increased risk of injury or ill health as they may be less familiar with the chemicals at work.

To help protect future workers:

- update safety statement and risk assessments regularly,
- provide training and supervision,
- investigate accidents. report them to the hsa when necessary (where a person is off work for more than 3 days, not including the day of the accident),
- consult with employees and elect safety representatives, and
- encourage reporting of health and safety concerns to the employer or another appropriate person.

Students need to understand how to manage chemical hazards. They will come across this in their future careers as employers, employees, or managers.

Do's and don't's when using chemicals in FET



Do!

- Request an SDS from the supplier.
- Read and follow the manufacturer's instructions before use.
- Swap hazardous chemicals with less hazardous chemicals.
- Use any recommended Personal Protective Equipment (e.g., gloves, respirator, and safety glasses).
- Create risk assessments that are specific to how you will use the chemical (e.g., including diluting).
- When buying a chemical, consider the lowest concentration and size available.
- Source and maintain appropriate controls from a skilled person (e.g., Local Exhaust Ventilation and fume cupboards).
- Keep chemicals locked away and out of reach of unauthorised personnel.
- Store the minimum amount of the chemical required.
- Dispose of chemical waste using a licenced waste provider.
- Train users in the safe use of chemicals.
- Follow emergency procedures if an accident or incident occurs.
- Vacuum up dusts (e.g., using an M or H class vacuum).



Don't!

- Transfer chemicals into unmarked containers.
- Use flammable chemicals near sources of ignition.
- Mix chemicals unless you are sure they don't react.
- Store chemicals alphabetically or unsuitable chemicals together (e.g., acids and bases).
- Eat, drink, smoke or vape in areas where chemicals are present.
- Sweep, brush or blow dusts (e.g., wood or silica dust).
- Disturb or remove asbestos, get specialist advice.

Further information

- www.hsa.ie/education
- **Information sheets**
 - Crystalline Silica Dust.
 - Wood Working.
 - Safety Data Sheets for Hazardous Chemicals.
 - And more...
- echa.europa.eu/regulations/clp/clp-pictograms
Provides further information on chemical hazard types.
- hsalearning.ie
 - 'Health and Safety in the Workplace for Apprentices'
 - 'Workplace Safety, Health and Welfare Induction'
 - 'Chemicals In the Workplace'
 - 'Asbestos Safety for Tradespeople'
- BeSMART.ie

For more information on chemicals please scan the QR code:



Contact our HelpDesk:

Email: contactus@hsa.ie

Phone: 0818 289 389

or visit: www.hsa.ie/education



An Údarás Sláinte agus Sábháilteachta
Health and Safety Authority