

G100

General ventilation

COSHH essentials



The Control of Substances Hazardous to Health Regulations 2002 (COSHH) require employers to ensure that exposure is prevented or, where this is not reasonably practicable, adequately controlled. This guidance gives practical advice on how this can be achieved by applying the principles of good practice for the control of exposure to substances hazardous to health, as required by COSHH.

It is aimed at people whose responsibilities include the management of substances hazardous to health at work (eg occupational health specialists, anyone undertaking COSHH assessments, supervisors and is also useful for trade union and employee safety representatives). It will help you carry out COSHH assessments, review existing assessments, deliver training and supervise activities involving substances hazardous to health.

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory, unless specifically stated, and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance.

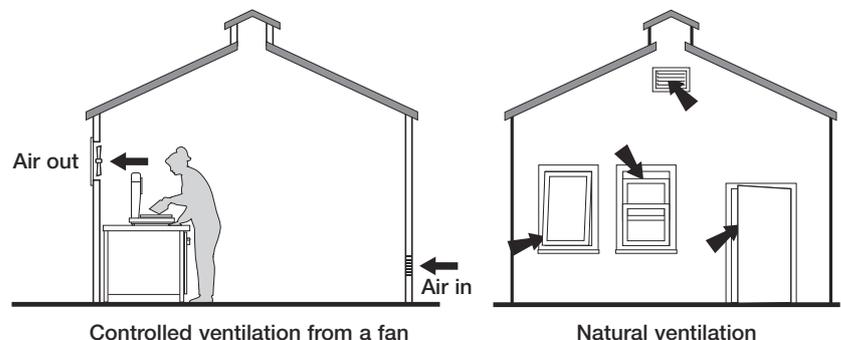
See Essential information near the end of the sheet.

Control approach 1 General ventilation

What this sheet covers

This sheet describes good control practice for general ventilation.

It covers the key points you need to follow to reduce exposure to an adequate level. Follow all the points, or use equally effective measures.



Access to work area

- ✓ Allow access to authorised and appropriately trained people only.

Equipment and procedures

- ✓ Provide a good standard of general ventilation. This can be natural ventilation from doors, windows etc, or controlled, where air is supplied or removed by a powered fan.
- ✓ Ensure all powered fans are appropriate for the contaminants being controlled, ie suitable for explosive, corrosive and flammable substances.
- ✓ If you work in a shop or office, natural ventilation will normally be enough to control dusts and vapours from cleaning materials etc.
- ✓ If you work in a factory, you will normally need controlled general ventilation to remove contaminated air and make it up with clean replacement air. This can be a wall-mounted fan to extract or supply air, with venting through airbricks, grills or louvres, or a more complex ducted air supply and removal system.
- ✓ Ensure that supplied or make up air comes from an uncontaminated area.
- ✓ Ensure that enough clean air is supplied to dilute and remove the dust or vapour produced. The rate of ventilation for an area is normally expressed in 'air changes per hour', ie the number of times per hour that the entire air volume of the area is changed. The rate selected depends of the type of room and the activity being undertaken. Typical applications range between 5 and 15 air changes per hour.
- ✓ Discharge extracted air to a safe place away from doors, windows and air inlets.
- ✓ With dusts, you can re-circulate clean, filtered air into the workroom.

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- ✓ With vapours, re-circulation is not recommended.
 - ✓ Ensure, where possible, that air comes from a clean source, flows past the worker and then past the work activity to the extraction point.

Respiratory protective equipment (RPE)

- ✓ RPE is not normally needed.
- ✓ RPE may be needed for maintenance and cleaning.

Personal protective equipment (PPE)

- ✓ Chemicals identified by COSHH Essentials as **hazard group S** can damage the skin and eyes, or enter the body through the skin and cause harm. Check the safety data sheets to see what PPE is needed.
- ✓ Ask your supplier to advise on suitable protective equipment.
- ✓ Make suitable arrangements for maintenance, storage and replacement of PPE.

Personal decontamination

- ✓ Provide warm water, mild skin cleansers, and soft paper or fabric towels for drying. Avoid abrasive cleansers.
- ✓ Provide pre-work skin creams, which will make it easier to wash dirt from the skin.
- ✓ Provide after-work creams to replace skin oils.

Caution: 'Barrier creams' are not 'liquid gloves' and they do not provide a full barrier.

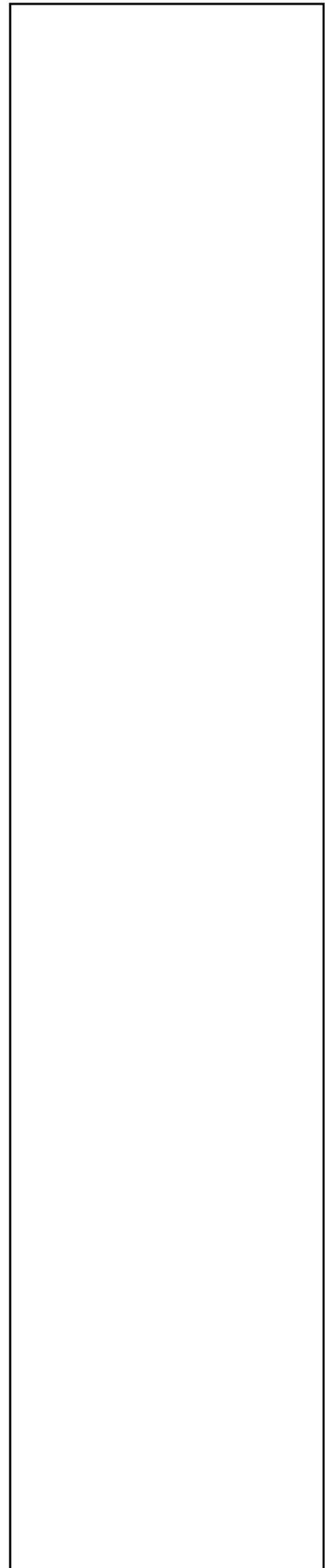
Maintenance, examination and testing

- ✓ Keep all equipment used for the task in effective working order. Maintain it as advised by the supplier or installer.
- ✓ Check for signs of damage to control equipment before starting work.
- ✓ Visually check all equipment at least once a week for signs of damage or faults.
- ✓ Have equipment thoroughly examined and tested against its performance standard, at suitable intervals.
- ✓ Keep records of all examinations for at least 5 years.
- ✓ Don't forget you may need PPE for some maintenance tasks.

Cleaning and housekeeping

- ✓ Clean equipment and the work area daily. Clean other equipment and the workroom regularly – at least once a week.
- ✓ Vacuum dry dust or use wet cleaning methods.
- ✓ Deal with spills immediately – use suitable protective gloves. You may also need RPE.
- ✓ Store containers in a safe place and dispose of empty containers safely.
- ✓ Put lids on containers immediately after use.

Caution: Never allow the use of brushes or compressed air for removing dust from skin and clothing. Avoid the use of brushes or compressed air for removing dust from surfaces or from inside machinery.



Training and supervision

- ✓ Provide supervision – ensure that safe work procedures are followed.
- ✓ Tell workers about the hazards associated with their work.
- ✓ Provide workers with training on:
 - working safely with hazardous substances;
 - when and how to use controls;
 - how to check they are working; and
 - what to do if something goes wrong.
- ✓ Consider keeping training records.
- ✓ Involve managers and supervisors in health and safety training.

Essential information

General advice on chemicals causing harm via skin or eye contact COSHH Guidance Sheet S100 HSE Books 2015
www.hse.gov.uk/pubns/guidance/s100.pdf

Selection of personal protective equipment COSHH Guidance Sheet S101 HSE Books 2015 www.hse.gov.uk/pubns/guidance/s101.pdf

Further information

Safety data sheets

You can find the full COSHH essentials series at
www.hse.gov.uk/coshh/essentials/index.htm

Occupational Safety and Health Consultants Register www.oshcr.org/

For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit www.hse.gov.uk/. You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.

Employee checklist

- Check the room is well ventilated, and any extraction or air supply is switched on and working properly.
- Look for signs of leaks, wear and damage before every job.
- If you find any problems, tell your supervisor. Don't just carry on working.
- Wash your hands before starting the job, and before eating, drinking, smoking or using the lavatory.
- Don't use solvents to clean your skin.
- Clear up spills immediately. For liquids, contain or absorb spills with granules or mats. For solids, use vacuum or wet cleaning.
- Dispose of spills safely.
- Use, maintain and store your PPE in accordance with instructions.

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