COSHH Regulations Explained: Your Guide to Hazardous Substances

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The Control of Substances Hazardous to Health Regulations 2002, usually known as COSHH, place a legal duty on employers to protect workers from substances that can cause ill health. They apply in almost every workplace in Great Britain, from an office using cleaning products and toner to a factory generating welding fume or wood dust. Understanding exactly what COSHH requires, and

what a genuinely compliant arrangement looks like in practice, matters far more than simply having a folder of paperwork on a shelf.

What Substances Does COSHH Cover (and What It Doesn't)

COSHH covers a wide range of hazardous substances, including chemicals bought in for the job such as cleaning agents, adhesives, paints and solvents, and substances generated by the work itself such as dust, fumes, vapours and mists. It also covers dusts from natural materials, such as flour in a bakery or wood in a joinery workshop, and biological agents such as bacteria and viruses that workers might encounter in care settings, waste handling or laboratories. Businesses in manufacturing and engineering typically deal with several categories at once, from cutting fluids to brazing fume, which is why a single generic assessment rarely holds up to scrutiny.

What COSHH does not cover is just as important to understand. Lead is dealt with under the Control of Lead at Work Regulations 2002, asbestos under the Control of Asbestos Regulations 2012, and radioactive substances and work involving ionising radiation have their own separate regimes. If asbestos is suspected in a building, the right step is to commission a specialist asbestos survey rather than treat it as a COSHH matter. Substances hazardous to health purely because of their physical properties, such as extreme pressure or temperature on their own, also sit outside COSHH, though they may well be covered by other regulations.

Who Is Responsible Under COSHH

The legal duty rests with the employer, but in practice that responsibility is usually delegated to managers, supervisors or an appointed competent person who understands the substances used on site. Many smaller and medium-sized businesses do not have that expertise in house, which is exactly where external competent person support is useful: someone who can help the employer carry out COSHH assessments, keep them current and advise when something changes.

Employees also have duties. They must use the controls provided, report defects in engineering controls such as extraction systems, wear any personal protective equipment correctly, and attend the training they are given. Where health surveillance is in place, employees need to cooperate with it. None of this works if assessments are written once and filed away; someone needs clear ownership of keeping them accurate and acted upon.

Carrying Out a Compliant COSHH Assessment

A proper COSHH assessment starts with identifying every hazardous substance used, produced or encountered in the workplace. This means checking current Safety Data Sheets for each product, not relying on information from a previous formulation, and looking at hazard pictograms and precautionary statements on labels. It also means thinking about by-products of a process, such as fume from welding or dust from cutting, which are often missed because nobody bought them in directly.

Once substances are identified, the assessment needs to look at how exposure could actually happen: inhalation, skin contact, ingestion or injection, and how often and for how long workers are

exposed. A chemical used once a month in small quantities carries a very different risk profile to the same chemical used continuously in a poorly ventilated space, so assessments need to reflect real working practices rather than a worst case assumption copied from a template.

Applying the Hierarchy of Control

Control measures should follow a clear hierarchy rather than jumping straight to protective equipment:

- Eliminate the substance entirely if the task can be done another way
- Substitute it with a less hazardous alternative
- Use engineering controls such as local exhaust ventilation or enclosed processes
- Apply administrative controls, including safe systems of work, signage and limiting the number of people exposed
- Provide suitable personal protective equipment as the last line of defence, not the first

Where respiratory protective equipment is genuinely needed, it only works if it fits the wearer properly, which is why face-fit testing is a legal requirement for tight-fitting RPE, not an optional extra.

Review, Monitoring and Record Keeping

COSHH assessments are not a one-off exercise. They should be reviewed regularly, and many businesses set an annual review as a sensible minimum. They must also be reviewed immediately after any change in substance, process, equipment or staffing, after an incident or near miss, or if new information emerges about a substance's hazards. Workplace Exposure Limits for airborne substances are published in guidance document EH40 and should be checked against the specific substance in use; where exposure might exceed these limits, air monitoring may be required to confirm controls are working.

Health surveillance is a legal duty where a COSHH assessment identifies a reasonably foreseeable risk of occupational disease, for example from isocyanates, respiratory sensitisers or certain biological agents. This should be arranged through a qualified occupational health provider. Records that need keeping include current COSHH assessments, Safety Data Sheets, training records, any exposure monitoring results and health surveillance records, some of which must be retained for many years because occupational diseases can take a long time to develop.

Common COSHH Mistakes We See

During site audits across the East Midlands, the same issues come up repeatedly, regardless of sector:

- Safety Data Sheets that are missing, expired or do not match the product actually in use
- Generic, templated assessments that bear little relation to how the job is actually done
- Heavy reliance on PPE while ignoring extraction, substitution or safer working methods

- Staff who have never been told what is in the products they use or why controls matter
- Assessments that were never updated after a process or supplier changed
- Care settings where cleaning chemicals and clinical waste are assessed together as if they carry identical risks

These gaps are usually easy to find and easy to fix once someone looks properly, which is exactly what a structured auditing and inspection visit is designed to surface before an inspector or an incident does.

Getting COSHH Right in Your Business

Good COSHH management is not about paperwork for its own sake; it is about making sure people go home as healthy as they arrived, whether that is a care worker handling cleaning products on a daily basis in a care home or a machinist exposed to cutting fluid mist on a production line. Training staff so they understand what they are working with and why controls exist is one of the simplest ways to close the gap between a document on file and genuine protection, and our COSHH Awareness course is built to do exactly that. It is delivered by Integral Safety, an IOSH approved training provider.

If your COSHH assessments need an honest review, or you are not confident your current arrangements would stand up to scrutiny, Integral Safety can help businesses across the East Midlands get this right. Get in touch to talk through your situation.

Talk to Integral Safety Ltd

We are health and safety consultants based in Coalville, Leicestershire, working with businesses across the East Midlands. If anything in this guide applies to your workplace, we can help.

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This guide is general information about UK health and safety law and practice, correct as at 11 November 2026. It is not advice on your particular circumstances. The latest version is at https://integralsafetyltd.co.uk/blog/understanding-coshh-a-guide-to-hazardous-substances.