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COSHH: BACK-TO-BASICS

A plain English guide to
the Control of Substances
Hazardous to Health regulations

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INTRODUCTION TO COSHH



I hope you find this guide useful in understanding the basics of COSHH and managing hazardous substances in the workplace.



MIKE HARRIS
Head of Customer Success
Alcumus Sypol

To help you better understand COSHH and engage your workforce, our in-house COSHH experts have outlined key information and tips on hazardous substance management. You will learn:

- What the COSHH regulations are
- The importance of COSHH and hazardous substance management
- Which substances are covered under COSHH
- How to write and interpret a COSHH assessment
- How technology can help you meet the challenge

I hope you find this guide useful in understanding the basics of COSHH and managing hazardous substances in the workplace.

Simplify chemical safety with the right tools and expert advice. Thank you for reading and as always, we welcome any feedback.



Our COSHH assessments can be easily accessed by the health and safety team regardless of where they are based, and they reflect the specific risks that we need to mitigate against at each site. The fact that all assessments use simple, pictorial style worker sheets also means that we no longer have any issues with training staff, regardless of language barriers.

We now have a system that can scale with the demands of our business. With almost 2,500 products or substances requiring a COSHH assessment, there is a massive demand on us to ensure compliance.

Jeffery Marston,
Group Safety and Environment Manager
AB Agri



COSHH MANAGEMENT TOP TIPS TIP 1

Complete training of employees

We recommend making sure that your employees are trained and educated on what a COSHH risk assessment is and why it's important. If they are not trained, they are likely to harm themselves and those around them.



WHAT IS COSHH?

The Control of Substances Hazardous to Health – or COSHH as most people refer to it – is the primary set of regulations in the UK that govern the use of hazardous substances in the workplace. By law, COSHH requires employers to conduct a formal risk assessment for any exposure to a hazardous substance that could occur in conjunction with their work.



COSHH is the commonly used acronym for the following regulations:
Control of Substances Hazardous to Health Regulations, 2002.

Hazardous substances can cause a wide variety of ill health effects, from mild irritation to corrosive burns and even long-term illnesses such as cancer. COSHH is designed to ensure that exposure to these substances is controlled and does not lead to worker ill-health.

COSHH regulations were first introduced in 1988; however, over time the regulations have been amended and adapted to reflect changing workplace environments.

COSHH covers a wide variety of substances, including:

- All purchased hazardous materials a company may use
- Substances that form naturally in the workplace
- Substances that form as a result of workplace processes

Whether it has been brought onto a site or created, if a substance poses a risk to somebody's health, it requires a COSHH risk assessment.

Breaches in COSHH compliance can result in personal injury claims, fines by the HSE and loss of reputation to your business.

Hazardous substances can often be daunting for many people. But don't worry, you don't need a chemistry degree to manage COSHH effectively. At Alcumus Sypol, we recommend **the following six steps to COSHH compliance** →

Do you deal with any of these substances in your line of work?

- Cleaning products
- Oils or lubricants
- Paints and adhesives
- Gases
- Biological agents
- Dusts and fumes
- Detergents

If you ticked yes to any of these boxes, then COSHH regulations must be applied.



STEP 1: IDENTIFY SUBSTANCES AND ELIMINATE EXPOSURE WHERE POSSIBLE

The first step is simple: identify the substances that are subject to the COSHH regulations and those that are not.

WHAT COSHH COVERS:

- Purchased products (e.g. paints, adhesives)
- Process emissions (e.g. dusts, welding fumes)
- Biological material (e.g. pigeon droppings, blood, bacteria, viruses)
- Contaminants (e.g. used engine oils)

Some notable substances **do not** fall under COSHH regulations, mainly because they have other sets of regulations for their governance. These include, but are not limited to:

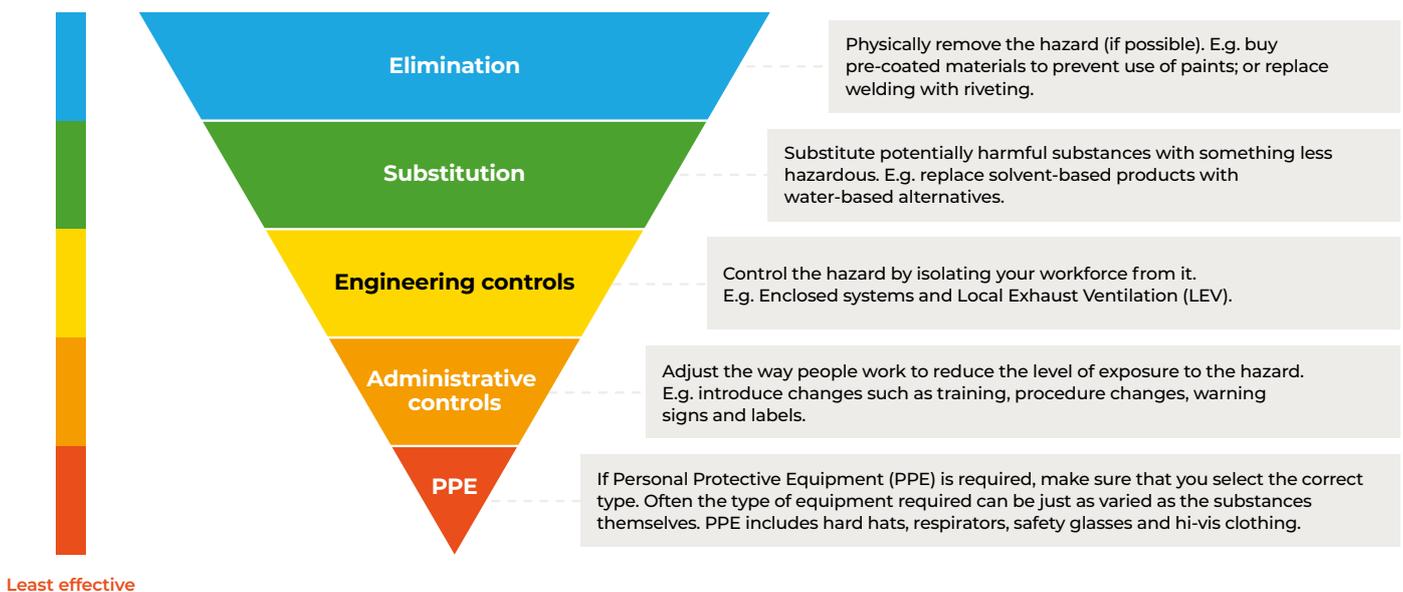
- Asbestos
- Lead
- Radioactive material
- Physically induced risks
- Articles
- Therapeutic agents
- Cosmetics
- Items of PPE
- Explosives

Remember – COSHH covers exposure to a substance. If you are not exposed to the substance in the workplace, then you do not need to have a COSHH assessment for it.

Once you have identified the hazardous substance, your first duty is to try and prevent the exposure of it. Like with many areas of health and safety, prevention and control can be achieved in several different ways. We recommend following **the hierarchy of control**, which is as follows:

HIERARCHY OF CONTROL

Most effective



If these options can be implemented, then they will drastically reduce the risk involved.

STEP 2: GATHER THE SAFETY DATA SHEET AND INFORMATION ON THE SPECIFIC TASK AND EXPOSURE SCENARIOS

Once you are ready to compile a COSHH risk assessment, you should ensure that you have all the information you need. If it's a manufactured product, the safety data sheet will outline the hazard information associated with that specific product.

WHAT IS A SAFETY DATA SHEET (SDS)?

As set out by the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulations, an SDS sheet is required for each hazardous product used within an organisation.

Safety data sheets alone do not constitute a compliant COSHH risk assessment; they are merely the starting reference point. The SDS will often only give you information about the substance itself and not how to control its use. When completing a COSHH assessment, you must assess the risk associated with the use of the substance in a specific work environment.

A health and safety professional responsible for the control of hazardous substances must appreciate the difference between an SDS sheet and a COSHH risk assessment.

Next, you should combine the information on the SDS with details of the specific task and exposure scenarios. All these factors will have a bearing on the level of risk you associate with the task.

EXPOSURE SCENARIOS INCLUDE:

- Method of use
- Area of use
- Length of exposure
- Quantity used
- Number of people exposed
- Frequency of use



COSHH MANAGEMENT TOP TIPS TIP 2

SDS vs. COSHH Assessment

An SDS is not a COSHH assessment: COSHH assessments are legal documents that are task specific towards reducing risk. An SDS is a 16-section document produced by the supplier that provides hazard information about a product.



We needed a more efficient solution to support our chemical management strategy, using Alcumus software gives us peace of mind that we have all of the protection in place so that people are working safely and are protected from the hazardous products they use regularly. Having professional support from the Alcumus team and knowing that COSHH assessments have been checked by experts, we've been able to continually improve the way we manage COSHH across the business.

DARREN THAIN
Senior Health and Safety
Systems Manager – Muller



STEP 3: ASSESS THE RISKS AND IDENTIFY CONTROL MEASURES

When you are carrying out a risk assessment for the use of a hazardous substance, you should always be mindful of the two different types of risk they carry. Many substances can cause short-term or acute damage such as irritation, nausea or burns. However, a surprising number of substances can have chronic effects after long periods of repeated exposure. Latent effects are often severe and include breathing difficulties, cancer or nerve damage. The COSHH regulations put specific emphasis on the control of these types of substances, as the potential outcomes can often be irreversible.

ACUTE:

- Effects are immediate responses to single short-term exposures
- Damage usually occurs with complete or incomplete recovery
- Effects are usually visible, so cause is easily found
- Wide variation in effects from simple irritation to death

CHRONIC:

- Ill health apparent sometime after exposure
- Exposure usually prolonged or repeated at low levels
- Symptoms persist over a long period e.g. silicosis, coal workers pneumoconiosis
- Often difficult to identify conditions causing effects

MYTH: 'If it hasn't been a risk or harmed me before, it won't be in the future.'

REALITY: While you might be in perfect health right now, the effects of exposure to hazardous substances can take years to develop. If you work in situations where you are exposed to hazardous substances and feel adequate control measures are not in place, it is vital to communicate this to your employer or H&S manager.

The HSE estimates that there are 12,000 lung disease deaths each year linked to past exposures at work.*

STEP 4: WRITING A COSHH RISK ASSESSMENT

STEP 1

Record all the details of the hazardous substance you have identified. This includes details such as the substance name, its physical state, the manufacturer, its chemical composition and whether exposure prevention has been considered. You will find a lot of this information on the safety data sheet.

STEP 2

Identify the hazards associated with using the substance. CLP hazard symbols are used to establish the hazard classifications of the substance for example, if it's corrosive, flammable or toxic. This information can be found on the safety data sheet that you receive when purchasing the substance.

SAFETY DATA SHEET REFERENCE DATE		COSHH ASSESSMENT					ASSESSMENT REFERENCE NO.:	
LOCATION								
SUBSTANCE				HAZARD CLASSIFICATION				
NAME								
PHYSICAL STATE								LOW HAZARD
SUPPLIER / MANUFACTURER	TEL. NO.	EMERGENCY NO.						
HAS THE PREVENTION OF EXPOSURE TO THIS MATERIAL BEEN CONSIDERED? (E.G. ELIMINATION OR SUBSTITUTION)				HAZARD STATEMENTS				
				PRECAUTIONARY STATEMENTS				
HAVE ALL POTENTIAL CHEMICAL INCOMPATIBILITIES / BY-PRODUCTS RESULTING FROM THIS TASK BEEN CONSIDERED?				CHEMICAL COMPOSITION				
OCCUPATIONAL EXPOSURE LIMITS								
DESCRIPTION OF WORK								
DESCRIPTION OF PROCESS							WHERE IS THE MATERIAL USED	
QUANTITY OF USE	DURATION OF EXPOSURE	FREQUENCY OF EXPOSURE			WHO COULD BE EXPOSED			
UNCONTROLLED RISK LEVEL								
ROUTE OF ENTRY	SKIN CONTACT / ABSORPTION		INGESTION		INHALATION		INVASION / INJECTION	
RISK								

STEP 3

List the occupational exposure limits on the assessment if a substance poses an inhalation hazard. These can be found on the suppliers' SDS or in the HSE EH40 document.

STEP 4

Consider how the substance is being used and in what type of working environment. You must include a description of the work being carried out, the expected length of working time, location and the quantity of use. Remember, different methods of use pose different risks, so you need an assessment for every exposure scenario.

STEP 5

Determine the risks of using the substance, considering all possible routes of entry, including inhalation, skin contact and eye contact. This will help you to outline sensible control measures to make sure your employees are safe. Remember, personal protective equipment should be used as a last resort.

STEP 4: WRITING A COSHH RISK ASSESSMENT (CONTINUED)

STEP 6

This looks at what you need to do in the unfortunate event that you need to take emergency precautions. You need to include your emergency arrangements so that whoever is first on the scene will know how to safely and quickly manage the situation. While these may already be in place, it's vital to think about how this substance may effect a fire, a spillage or a first aid occurrence.

STEP 7

Include simple instructions about how the substance will be handled, stored and disposed of when not in use.

RISKS / HAZARDS	CONTROLS FOR OPERATOR		CONTROLS FOR OTHER PEOPLE		FIRST AID EMERGENCY ACTION
INHALATION					
INGESTION					
EYE CONTACT					
SKIN CONTACT					
EMERGENCY ARRANGEMENTS			HANDLING, STORAGE AND DISPOSAL		
FIRE-FIGHTING MEASURES		ACCIDENTAL RELEASE MEASURES		HANDLING	STORAGE
		ADDITIONAL REQUIREMENTS			
DESCRIPTION	REQUIRED		DETAILS	FREQUENCY	
	YES	NO			
Face-fit testing					
Maintenance					
Monitoring (Air/biological)					
Health Surveillance					
Information, instruction and training					
Specific emergency procedures					
ASSESSOR	I CAN CONFIRM THAT I HAVE CONSIDERED AND UNDERSTAND THE CHEMICAL TO BE USED AND THE ASSOCIATED HAZARDS. I AM SATISFIED THAT ALL OF THE HAZARDS HAVE BEEN IDENTIFIED AND THAT THE CONTROL MEASURES TO BE FOLLOWED WILL REDUCE THE RISKS TO AS LOW A LEVEL AS REASONABLY PRACTICABLE				
CONTROLLED (RESIDUAL) RISK LEVEL	DATE	PRINT NAME		SIGNATURE	

STEP 8

Make sure you have considered any additional actions or requirements needed so that the operators in question are kept as safe as possible. This includes things like face-fit-testing for masks, health surveillance, biological monitoring and any employee training requirements.

STEP 9

Once all of the sections of the COSHH risk assessment have been completed, it needs to be reviewed and signed off by a competent person. You should make sure that the assessment is easily accessible for your employees and is reviewed and updated in the event of a change of product or process.

STEP 5: IMPLEMENT CONTROL MEASURES AND TRAIN EMPLOYEES

Once the risk has been assessed, control measures must be put in place. These measures will vary depending on the task, with some areas being served by extraction systems and others having to rely on PPE.

EXAMPLES OF CONTROL MEASURES

- Extraction and enclosed systems
- Personal Protective Equipment (PPE) and Respiratory Protective Equipment (RPE)
- Administrative measures such as job rotation

EXAMPLES OF ADDITIONAL ACTIONS

- Air monitoring – dusts, fumes and vapours
- Biological monitoring – blood, urine and breath testing
- Health surveillance – lung function testing, skin checks etc.
- Training – all staff fully trained for the use and handling of the substance

If workers are fully trained and have all the information available, then they are more likely to undertake the work safely. Hazardous substance management is often seen as a niche or difficult area of health and safety; however, it's important that we educate ourselves and employees correctly to understand and identify the risks.

Reasons why your employees should know about COSHH:



1. Maintain the health and safety of staff



2. Ensure that staff feel protected and valued



3. Protect professional reputation



4. Reduce the likelihood of financial penalties



5. Build a commercial advantage



COSHH MANAGEMENT TOP TIPS

TIP 3

PPE and RPE

Don't have an over-reliance on PPE; if the PPE fails, the user does not wear it properly, or if it isn't maintained – it will become significantly less effective.

Additionally, all tight fitting RPE that is worn in work requires a face fit test. This will ensure that the mask is effectively sealed with the face. If a seal is not being made, the mask will not provide the required level of protection.

STEP 6: ENSURE ONGOING COSHH MANAGEMENT AND REVIEW OF ASSESSMENTS

COSHH assessments must be reviewed periodically. At Alcumus Sypol, we recommend the following guidelines depending on the level of risk:

Review annually – High risk substances

Review every 3 years – Medium risk substances

Review every 5 years – Low risk substances

However, review your COSHH assessments outside of our recommended time periods when:

- A new safety data sheet is received
- A process changes or following technological development
- An accident or incident occurs
- Someone feels ill whilst using the product
- Maintenance demonstrates a failure of control measures
- A safer substitute is found



Remember
Why should I do a COSHH assessment?

- Protect yourself and others
- Legal requirement

When should it be done?

- Before work starts

COSHH MANAGEMENT TOP TIPS
TIP 4

Have a formal health surveillance scheme in place

Employees who are exposed to hazardous substances daily must have regular access to health surveillance testing such as lung function testing, skin checks and biological monitoring.



IN SUMMARY, YOUR 6 STEPS TO COSHH COMPLIANCE:

1. Identify hazardous substance
2. Gather information
3. Evaluate the risk to health and decide on the necessary controls
4. Write COSHH assessment
5. Implement control measures
6. Review the assessment periodically



THE COSHH CYCLE

The process by which a COSHH assessment is compiled can be very confusing for those that are not familiar with it.

At Alcumus Sypol, we follow the COSHH cycle. The COSHH cycle shows the order in which the regulations should be implemented to gain effective management of hazardous substances.

There are lots of regulations relating to COSHH, but as long as you work towards the regulations outlined in our COSHH cycle, you will go a long way to effective practical management of COSHH:

- Have a written assessment in place for every anticipated workplace exposure (**Regulation 6**)
- Prevent exposure or implement suitable measures to control exposure to those substances through all routes of entry (**Regulation 7**)
- Use all control measures provided and maintain them to ensure their ongoing performance (**Regulations 8+9**)
- Where there is concern exposure is not adequately controlled, conduct monitoring and health surveillance to ensure the protection of employees (**Regulations 10+11**)
- Inform employees about all areas of the assessment (**Regulation 12**)
- Make plans for in the event of spillage, first-aid or fire (**Regulation 13**)

It is important that your COSHH assessments are correct. Their presence and their compliance are a legal requirement.

INTERPRETING A COSHH ASSESSMENT

A practical, common sense approach should be adopted when writing COSHH assessments. The principle behind a COSHH assessment is that it should enable a person undertaking an activity to:

- ✓ Understand the hazards and subsequent risks of substances used in the activity.
- ✓ Appreciate the necessity to implement appropriate control measures to minimise the risk to health.
- ✓ Identify control measures and know how to implement them (such as using engineering controls or personal protective equipment (PPE)).
- ✓ Know what to do when something goes wrong (first aid procedures, spillage requirements, etc.).



HAZARD PICTOGRAMS

Having pictograms on a COSHH assessment is an excellent way of portraying lots of information without having too much text. As shown on Page 6, pictograms appear in the 'Hazard Classification' section of a COSHH assessment. It is vital that whoever is looking at the pictograms on a COSHH assessment understands their meaning.



Acute Toxicity

- Materials that cause serious systemic health effects upon small exposures when in contact with the skin, if inhaled or ingested.



Corrosive

- Materials which may destroy living tissue or metal upon contact.



Warning

- Irritant to eyes, skin, respiratory system.
- Low damage acute systemic or specific organ toxicity.
- Narcotic effects and skin sensitisation.



Health Effects

- Carcinogenic and mutagenic substances and substances which are toxic to the reproductive system.
- Respiratory sensitisers.
- Substances which cause specific organ toxicity upon acute or initial exposure.

HAZARD PICTOGRAMS (CONTINUED)



Explosive

- Stable and unstable explosives.
- Self-reacting materials and some organic peroxides.



Oxidising

- Gases, liquids and solids that in itself does not necessarily burn, yet, generally by yielding oxygen, may cause or contribute to the combustion of other materials .



Flammable

- Flammable solids, liquids, gases or aerosols.
- Self reacting or self heating substances or mixtures.
- Pyrophoric substances and mixtures or substances that liberate flammable gas in contact with water.



Gas Under Pressure

- Pressurised gas containers; refrigerated gas, liquefied or dissolved gas.



Environmental Effects

- Materials which cause acute or chronic damage to the aquatic environment.



COSHH MANAGEMENT TOP TIPS TIP 5

Review COSHH assessments regularly

COSHH compliance is a cycle of continuous improvement. The job is not done once a COSHH risk assessment is in place; processes and procedures must be reviewed on a regular basis.

HOW TECHNOLOGY CAN HELP YOU MEET THE CHALLENGE

With over 40 years of experience in the hazardous substance industry, Alcumus Sypol has earned its position as the UK's go-to, credible provider of COSHH management solutions. Partnering with hundreds of businesses over more than 20 industries, Sypol combines technology and COSHH expertise to simplify COSHH management in the workplace.

Partnering with Alcumus takes your systems beyond regulatory compliance and into best practice.

HERE'S HOW OUR TECHNOLOGY AND EXPERTS CAN HELP:



Keep your people safe – gain insight and visibility of what hazardous substances are being used across your business. This will allow you to build a COSHH risk profile and take appropriate next steps to manage the risk.



Achieve COSHH compliance – access to a team of scientifically qualified COSHH specialists who can advise on legislation updates and make sure that your software is always updated and compliant.



Access a database of 900,000+ COSHH risk assessments – instantly download compliant COSHH risk assessments which have been written and validated by our in-house specialists.



Unlimited software and user access – health and safety teams work 9/5, but Sypol's software is accessible 24 hours a day, 7 days a week, via any device. There's no additional charge for additional users.



Save time and money – it's costly to hire an in-house trained COSHH specialist who is available 24/7. By partnering with Sypol, you negate the need to pay a salary and ongoing training costs.



Intuitive reporting – generate and export safety data at the click of a button using the intuitive and user-friendly reporting feature.



ABOUT ALCUMUS SYPOL

Sypol's COSHH management software (CMS) helps businesses to demonstrate a robust approach to compliance by increasing visibility of risks. Partnering with hundreds of businesses over more than 20 industries, Sypol combines technology and COSHH expertise to simplify COSHH management in the workplace. Let us help you to increase your productivity and business efficiency by removing the time resource and financial burden of managing COSHH.

ABOUT ALCUMUS

Alcumus is a leading provider of software-led risk management solutions providing clients with advice, expertise and support to help them identify and mitigate risks, navigate compliance and keep people safe. It supports both UK and International clients – many of whom are on the FTSE 100 index – with a wide range of risk management services. This includes products across Supply Chain Management, EHSQ Software, UKAS Accredited Certification and HR and H&S support services.

Our people are at the heart of our business, building strong relationships with our clients to understand their needs, minimise risks and navigate compliance through our in-depth knowledge of your sector, regulations and challenges.

To find out how Alcumus Sypol's COSHH management solutions can help you to protect your people and achieve COSHH compliance, get in touch with our expert team on **01296 768790** or visit **[alcumus.com/sypol](https://www.alcumus.com/sypol)**

