Control of Substances Hazardous to Health (COSHH)

**COSHH**

Why were the Regulations introduced?

- Work related ill health, such as respiratory problems, dermatitis, sensitisation, hepatitis, poisonings etc.
- Designed to prevent rise in occupational ill health due to exposure to hazardous substances

Definition of a Substance Hazardous to Health

- listed as being very toxic, toxic, harmful, irritant or corrosive, sensitising, carcinogenic, mutagenic, toxic to reproduction
- for which the HSE has approved a workplace exposure limit (WEL)
- biological agent
- dust of any kind (substantial concentration)
- a substance, not mentioned, which creates a comparable hazard

Types of substance

- Solids – latex, cleaning chemicals
- Liquids – urine, blood, cleaning chemicals
- Gases – anaesthetic agents (N₂O)
- Aerosols / airborne particles – cauterising particles
- Biological agents – HIV, Hepatitis C virus

Routes of Exposure

- Ingestion
- Inhalation
- Skin absorption, contact, puncture
- Mucous membranes
- Infection

Programme

1. Introduction
2. The COSHH Regulations
3. Risk Assessment
4. Chemical, Labelling and Packaging Regulations
5. Group work
6. Summary & close
The Regulations do not apply to:
- radiation
- high pressures
- extreme temperatures
- explosive or flammable properties
- lead, asbestos

NB. Other regulations apply to these risks

COSHH does not apply to patients' exposure to medicines or dental treatment, but covers staff exposure.

Employers must
- Assess and undertake a suitable & sufficient risk assessment and:
  - Prevent exposure
  - If can't prevent, identify and implement controls to minimise exposure
  - Maintain, examine and test control measures
  - Monitor exposure (where required)
  - Health surveillance (where appropriate)
  - Provide information, instruction, training and supervision

COSHH Regulations

Hierarchy of Control Measures
- Eliminate the use of a harmful product or substance and use a safer one.
- Use a safer form of the product, eg paste rather than powder.
- Change the process to emit less of the substance.
- Enclose the process so that the product does not escape.
- Extract emissions of the substance near the source.
- Have as few workers in harm's way as possible.
- Provide PPE such as gloves, coveralls and a respirator. PPE must fit the wearer.

COSHH Regulations

Factors to consider in an assessment include:
- Type of substances to which employees are liable to be exposed
- Where, and in what form, the substances are present
- Effects of the substances on the body
- May require an estimate of exposure (seek advice from Occupational Hygienist)
- Consider storage, transport, handling and use in your area of work
- Spillage and disposal procedures
COSHH Risk Assessment

Assessors guide:
- Locate previous assessment (if it exists)
- List Hazardous Substances involved
- Request current Safety Data Sheets from supplier or manufacturer for all substances involved
- List associated activities

COSHH-List of Substances

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Chemical/ Substance/Product Name</th>
<th>Classification eg Harmful / Toxic</th>
<th>Where is it used eg Location / Operation</th>
<th>Maximum Quantity Stored</th>
<th>Risk Assessment Yes / No</th>
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COSHH Risk Assessment

Assessors guide:
- Remove any substance that is not required
- If possible, substitute with less harmful substance, for example:
  - Replace effervescent bleach tablets with non effervescent
  - Replace latex gloves with non latex
- Determine if a risk actually exists

COSHH Risk Assessment

Risk Evaluation
Decide which level of risk exists –

**Low** - Quantities or usage, too small to constitute a foreseeable risk to health.

**Medium** - Risk is significant, but adequate control measures are in place, further controls may be required to bring the level down to low risk.

**High / Very High** - There is a risk to health and further control measures are required. Work should stop until the level is reduced. Seek expert advice.

Information, etc.

The employer must provide employees with information, instruction, training and supervision regarding the following:
- risk to health created by exposure
- precautions which should be taken
- results of monitoring
- results of health surveillance

Safety Data Sheets

- Suppliers of hazardous chemicals must supply their customers with safety data sheets
- The safety data sheet is the starting point for the COSHH assessment
# Safety Data Sheets

## Headings which should appear on safety data sheets

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Identification of the substance / mixture and of the company / undertaking</td>
</tr>
<tr>
<td>2</td>
<td>Hazards identification</td>
</tr>
<tr>
<td>3</td>
<td>Composition/information on ingredients</td>
</tr>
<tr>
<td>4</td>
<td>First-aid measures</td>
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<td>5</td>
<td>Fire-fighting measures</td>
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<tr>
<td>6</td>
<td>Accidental release measures</td>
</tr>
<tr>
<td>7</td>
<td>Handling and storage</td>
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<tr>
<td>8</td>
<td>Exposure controls / personal protection</td>
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<tr>
<td>9</td>
<td>Physical and chemical properties</td>
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<td>10</td>
<td>Stability and reactivity</td>
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<tr>
<td>11</td>
<td>Toxicological information</td>
</tr>
<tr>
<td>12</td>
<td>Ecological information</td>
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<tr>
<td>13</td>
<td>Disposal considerations</td>
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<tr>
<td>14</td>
<td>Transport information</td>
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<tr>
<td>15</td>
<td>Regulatory information</td>
</tr>
<tr>
<td>16</td>
<td>Other information</td>
</tr>
</tbody>
</table>

## Information provided on safety data sheets includes:

- Workplace Exposure Limits (WEL)
  - The WEL should not be exceeded. If substance causes cancer, heritable genetic damage or asthma, exposure must be reduced to lowest level reasonably practicable

## Health Surveillance

Early detection of ill health associated with exposure to hazardous substances, can involve:

- examination by a doctor or Occupational Health nurse
- checks of employees’ skin for dermatitis by a Responsible Person
- completion of a questionnaire

Health / monitoring records must be kept for at least 40 years

## Classification, Labelling & Packaging (CLP) Regulations

- Requires classification and labelling of substances to be consistent with CLP
- Sets general packaging standards to ensure the safe supply of hazardous substances and mixtures.

## CLP Regulations

Substances and mixtures will be classified by:

- A Globally Harmonised System (GHS) of classification and labelling of chemicals

- Labels will contain
  - a pictogram
  - hazard statements
  - precautionary statements

## CLP Pictograms

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>Hazard Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dangerous to the environment</td>
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<tr>
<td></td>
<td>Toxic</td>
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<tr>
<td></td>
<td>Gas under pressure</td>
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<td></td>
<td>Corrosive</td>
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<tr>
<td></td>
<td>Explosive</td>
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<tr>
<td></td>
<td>Flammable</td>
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<td></td>
<td>S sensational</td>
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<tr>
<td></td>
<td>Irritating</td>
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<tr>
<td></td>
<td>Long-term health hazard such as cancerogenicity</td>
</tr>
</tbody>
</table>
The CLP Regulations introduces two new signal words required for labelling:

**Danger** - if the chemical has a more severe hazard

**Warning** - if the chemical has a less severe hazard

Where several hazards requiring signal words are present, only the signal word for the most severe hazard will be displayed.

**CLP – Signal Words**

A hazard statement is a phrase that describes the nature of the hazard in the substance or mixture. A hazard statement will be determined by the application of the classification criteria.

Examples of hazard statements include:

- Causes serious eye damage
- Toxic if swallowed
- Toxic to the aquatic life with long lasting effects
- May cause allergy or asthma symptoms or breathing difficulties if inhaled

It replaces the ‘risk or R-phrase’ used in CHIP

**CLP – Hazard Statements**

A precautionary statement is a phrase that describes a recommended measure(s) to minimise or prevent adverse effects resulting from exposure to a hazardous substance or mixture due to its use or disposal.

Examples of precautionary statements include:

- Wear eye protection
- Do not eat, drink or smoke when using this product
- Avoid release to the environment
- In case of inadequate ventilation wear respiratory protection

It replaces the ‘safety or S-phrase’ used in CHIP

**CLP – Precautionary Statements**

**Labelling Example**

**COSHH Risk Assessment Form**

<table>
<thead>
<tr>
<th>Department</th>
<th>Ref:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance / Activity</td>
<td></td>
</tr>
<tr>
<td>Is there a safe system of work for the activity?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>Can the hazardous substance be substituted with a safer alternative?</td>
<td>Yes / No</td>
</tr>
<tr>
<td>Product / Trade Name / Mixture etc.</td>
<td></td>
</tr>
<tr>
<td>Hazard Classification</td>
<td></td>
</tr>
<tr>
<td>Division of Hazardous Substances</td>
<td></td>
</tr>
<tr>
<td>Route of Entry / Exposure</td>
<td></td>
</tr>
<tr>
<td>Chemical Nature</td>
<td></td>
</tr>
<tr>
<td>Hazard Classification of剧物或混合物</td>
<td></td>
</tr>
<tr>
<td>Route of Entry / Exposure</td>
<td></td>
</tr>
<tr>
<td>Chemical Nature</td>
<td></td>
</tr>
<tr>
<td>Individuals or groups exposed</td>
<td>Staff / groups / Patients / visitors</td>
</tr>
<tr>
<td>Duration of exposure eg. hours / day</td>
<td></td>
</tr>
<tr>
<td>Estimated level of exposure*</td>
<td>High / Medium / Low / Negligible</td>
</tr>
<tr>
<td>Does the substance have a Workplace Exposure Limit? (WEL)</td>
<td>Yes / No</td>
</tr>
<tr>
<td>Compliant with Safety Precautions for Biological Hazards*</td>
<td></td>
</tr>
<tr>
<td>Is a Safety Data Sheet available?</td>
<td>Yes / No</td>
</tr>
</tbody>
</table>

**COSHH Risk Assessment Form**
COSHH Risk Assessment Form

**Health Surveillance/Atmospheric Monitoring**

<table>
<thead>
<tr>
<th>Is Health Surveillance or Atmospheric Monitoring of staff required?</th>
<th>Yes / No</th>
</tr>
</thead>
</table>

**New & Expectant Mothers**

<table>
<thead>
<tr>
<th>Are additional control measures required for new &amp; expectant mothers?</th>
<th>Yes / No</th>
</tr>
</thead>
</table>

If yes, please specify:

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COSHH Quiz

1. If you are supplied with a SDS is a COSHH assessment always required?
2. Can Latex gloves be classed as a hazardous substance?
3. Can staff choose whether or not to wear PPE when dealing with hazardous substances?
4. Are patients exposed to medicines covered by COSHH?
5. Is health surveillance required for all staff using hazardous substances?
6. How often should COSHH assessments be reviewed?
7. Can air monitoring be used to help assess the WEL is not exceeded?
8. What working conditions may cause contact dermatitis?

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Questions?

Further information regarding COSHH or any aspect of Health and Safety can be found on our HRConnect pages.