Control of Substances Hazardous to Health (COSHH)

**Programme**
1. Introduction
2. The COSHH Regulations
3. Risk Assessment
   Coffee/Tea Break
4. Chemical, labelling and Packaging Regulations
5. Group work
6. Summary & close

**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

**Routes of Exposure**
- Ingestion
- Inhalation
- Skin absorption, contact, puncture
- Mucous membranes
- Infection
COSHH Regulations

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.

COSHH Regulations

Employers must
- Assess and undertake a suitable & sufficient risk assessment, and:
  - Prevent or control 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

Only when these control measures cannot eliminate exposure completely should Personal Protective Equipment (PPE) be issued

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COSHH Risk Assessment

Must be ‘suitable and sufficient’, Undertaken by someone who is familiar with the task / environment and should include:
- assessment of risks to health
- focus on preventing exposure to substances
- steps that need to be taken to ensure adequate control of exposure
- identification of other necessary actions eg. Monitoring / training etc
- all assessments should be reviewed regularly – normally annually or if there is a change in the process, an incident etc
COSHH Risk Assessment

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
- 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>Chemical / Substance / Product Name</th>
<th>Classification</th>
<th>Where is it used</th>
<th>Maximum Quantity Stored</th>
<th>Risk Assessed?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

COSHH Risk Assessment

Assessors guide:

- Remove any substance that is not required
- If possible, substitute with less harmful substance e.g. effervescent bleach tablets for non effervescent
- Latex gloves for 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, instruction & training

The employer must provide employees with information, instruction and training 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

<table>
<thead>
<tr>
<th>Image 1</th>
<th>Image 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAFETY DATA SHEETS</td>
<td>SAFETY DATA SHEETS</td>
</tr>
<tr>
<td>Headings which should appear on safety data sheets</td>
<td></td>
</tr>
<tr>
<td>1. Identification of the substance / mixture and of the company / undertaking</td>
<td>2. Hazards identification</td>
</tr>
<tr>
<td>3. Composition/information on ingredients</td>
<td>4. First-aid measures</td>
</tr>
<tr>
<td>5. Fire-fighting measures</td>
<td>6. Accidental release measures</td>
</tr>
<tr>
<td>7. Handling and storage</td>
<td>8. Exposure controls / personal protection</td>
</tr>
<tr>
<td>9. Physical and chemical properties</td>
<td>10. Stability and reactivity</td>
</tr>
<tr>
<td>11. Toxicological information</td>
<td>12. Ecological information</td>
</tr>
<tr>
<td>15. Regulatory information</td>
<td>16. Other information</td>
</tr>
</tbody>
</table>

SAFETY DATA SHEETS

Safety Data Sheet

Information provided on safety data sheets includes:
- Workplace Exposure Limits (WEL)
- Should not exceed WEL for a substance, except:
  If substance causes cancer, heritable genetic damage or asthma, reduce exposure to as low as is reasonably practicable

Health Surveillance

Early detection of ill health associated with exposure to hazardous substances, can involve:
- Examination by a doctor or trained nurse
- Trained supervisors can check employees’ skin for dermatitis or ask questions about breathing difficulties
- Completion of a questionnaire

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

Tea Time

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Classification, Labelling and 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>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>☢️</td>
<td>Danger to the environment</td>
</tr>
<tr>
<td>♨️</td>
<td>Extinguishing</td>
</tr>
<tr>
<td>☢️</td>
<td>Flammable</td>
</tr>
<tr>
<td>☢️</td>
<td>Oxidising</td>
</tr>
<tr>
<td>☢️</td>
<td>Corrosive</td>
</tr>
<tr>
<td>☢️</td>
<td>Gas under pressure</td>
</tr>
</tbody>
</table>

CLP – Signal Words

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 – Hazard Statements

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 - Precautionary 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
Labelling Example

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COSHH Risk Assessment Form

<table>
<thead>
<tr>
<th>Department:--</th>
<th>Ref no:--</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance / Activity</td>
<td></td>
</tr>
<tr>
<td>Is there a safe system of work for the activity? Yes / No</td>
<td></td>
</tr>
<tr>
<td>Product / Trade Name / Mixture etc</td>
<td>Hazard Classification (Corrosive, Harmful, Irritant, Toxict, Very Toxic) Chemical Nature (aerosol, dust, fume, gas, liquid, powder, etc) Route of Entry / Exposure (Absorption, Ingestion, Inhalation, Injection)</td>
</tr>
<tr>
<td>Individuals or groups exposed</td>
<td></td>
</tr>
<tr>
<td>Duration of exposure</td>
<td>In a Safety Data Sheet Available? Yes / No</td>
</tr>
</tbody>
</table>

COSHH Risk Assessment Form

<table>
<thead>
<tr>
<th>Existing Precautions</th>
<th>Describe how they might fail to prevent adverse outcomes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summarise current controls in place including any procedures for Storage, Transport, Handling, Disposal and Maintenance as well as the general use of the substance.</td>
<td></td>
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<td>Yes / No</td>
</tr>
<tr>
<td>New &amp; Expectant Mothers</td>
<td></td>
</tr>
<tr>
<td>Are additional control measures required for new &amp; expectant mothers?</td>
<td>Yes / No</td>
</tr>
</tbody>
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COSHH Risk Assessment Form

<table>
<thead>
<tr>
<th>Risk Matrix</th>
<th>Impact / Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood</td>
<td>Negligible, Minor, Moderate, Major, Extreme</td>
</tr>
<tr>
<td>Almost Certain</td>
<td>Medium, High, Very High</td>
</tr>
<tr>
<td>Likely</td>
<td>Medium, High, Very High</td>
</tr>
<tr>
<td>Possible</td>
<td>Low, Medium, High, Very High</td>
</tr>
<tr>
<td>Unlikely</td>
<td>Low, Medium, Medium, High</td>
</tr>
<tr>
<td>Rare</td>
<td>Low, Low, Medium, Medium</td>
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If you, please specify:
COSHH Risk Assessment Form

Action Plan (if risk level is High (Orange) or Very High (Red))

Use this part of the form for risks that require action. Use it to communicate with your Line Manager or Risk Coordinator or others if required. If using a copy of this form to notify others, they should reply on the form and return to you. Check that you do receive replies.

Describe the measures required to make the work safe. Include hardware – engineering controls, and procedures. Say what you intend to change. If proposed actions are out with your remit, identify them on the plan below but do not say who or by whom; leave this to the manager with the authority to decide this and allocate the resources required.

Proposed actions to control the problem

List the actions required. If action by others is required, you must send them a copy.

<table>
<thead>
<tr>
<th>By Whom</th>
<th>Start date</th>
<th>Action due date</th>
</tr>
</thead>
</table>

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

Questions?

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