



## **UTC PLYMOUTH COSHH Policy**

### **Legal Requirements**

The Control of substances hazardous to health regulations 2002 requires that the employer shall not carry out work which is liable to expose any employees to any substance hazardous to health unless the employer has—

- (a) made a suitable and sufficient assessment of the risk created by that work to the health of those employees and of the steps that need to be taken to meet the requirements of these Regulations; and
- (b) Implemented the steps referred to in sub-paragraph (a).

### **Introduction**

UTC Plymouth will ensure, so far as reasonably practicable, that all staff, students, contractors and visitors are protected from the risks of Substances Hazardous to Health whilst on the premises. This document, in accordance with the COSHH regulations 2002 and the Management of Health and Safety at Work (MHSAW) regulations 1999, will detail UTC Plymouth's arrangements and procedures to ensure that, where possible, harm is prevented and that any exposure to risks are adequately controlled.

This policy forms part of the Health and Safety Policy and in common with that policy extends throughout the whole college.

### **Policy Objectives**

- To safeguard all persons from harm as a result of exposure substances hazardous to health by process of Risk Assessment (RA)
- To give information, instruction and training relevant to substances hazardous to health and the control measure required.
- To establish and effective management policy to ensure safe systems of work (SSW) in the respect of COSHH.

## **Responsibilities**

- Governors ensure that an appropriate policy is in place in the college and that arrangements are made for its effective implementation;
- The Principal is responsible for ensuring SSW are employed and delegates day to day management of the arrangements and procedures in this policy to the Principle Director of Operations (PDO) assisted by Whole Site Safety Coordinator (WSSC) and Premises Manager (PM).
- Directors of Faculty and Heads of Department are responsible for the control of substances and processes hazardous to health within their departmental responsibility.
- All employees have the responsibility to cooperate with UTC policies and arrangements to ensure SSW and must not do anything that will place themselves or other people at risk.

## **Information, Instruction and Training**

Employees and others exposed to hazardous substances must be provided with sufficient information, instruction and training for them to understand the nature of any risks created by the exposure and, if required, the precautions which need to be taken and how to use any control measures. UTC will provide induction training and any further training as required. Directors, HoD's and managers are to raise training requirements to PDO/WSC.

## **Monitoring, Review And Audit**

The Health and Safety Committee will monitor and review this policy at least annually and shall conduct internal audit of procedures.

## **Substances Hazardous To Health**

The Control of Substances Hazardous to Health Regulations applies to activities where hazardous substances are used and to activities which produce hazardous substances.

The Regulations require an assessment of the risks to health associated with exposure to hazardous substances before employees, students and others are exposed.

In order to risk assess we need to identify a substance and its potential to cause harm. Hazardous substances are often used in science, art, pottery, technology, cleaning work, office work, maintenance work and grounds work. Additionally, hazardous substances can be produced by work such as woodworking (dust), welding (fumes) and legionella bacteria may reproduce in hot and cold water systems.

## **Identifying Hazardous Substances**

A hazardous substance(s) is Material or a Mixture, that can endanger health, they can also be Dangerous Goods which can make them even more dangerous to handle or use.

E.g.: Petrol is a Hazardous Substance because its fumes can be dangerous to your health. Petrol is also an explosive hazard and is classified as Dangerous Goods for transport.

Hazardous substances can be solids, liquids, gases, or particles.

### **They include;**

- Chemicals with established occupational exposure limits
- Biological agents
- Bacteria, viruses, fungi used for experimental/teaching purposes
- Substances classified as very toxic, harmful, corrosive, sensitising, or irritant.

Processes may also produce hazardous substances such as fumes, dusts vapours, mists and gases.

Many of the following processes might create these hazards;

- Cleaning degreasing hand tools or machinery, removing fuel, oil or grease
- Dust from industrial processes such as wood cutting
- Welding , burning , cutting metal
- Chlorination
- Fumes and gases from sewage treatment processes
- Painting
- Bleaches in the washrooms and cleaning areas

### **Common Hazards**

**There are four main routes hazardous substances can enter the body;**

- Ingestion
- Inhalation
- Absorption
- Injection

With substances you can see it is important to know what you are dealing with and the dangers to your health if these substances enter the body through any of the four main routes.

There are many cases when the hazardous substance;

- is impossible to see
- Is difficult to smell – or can 'De-Sensitise' your ability to smell them.
- is lighter or heavier than air

Substances classified as being very toxic, toxic, harmful, corrosive, irritant, sensitising, carcinogenic, mutagenic, or toxic to reproduction - these are commonly labelled with a hazard pictogram

### **Material Safety Data Sheet (MSDS)**

**Suppliers have a duty to provide information on their products and substances. This is in the form of an MSDS.**

All products that pose a hazard to health must be labelled and packaged clearly by the manufacturer in the form of a Material Safety Data Sheet (MSDS) and be no more than 5 years old. They provide the following important information

Name, address and contact details of supplier

Identification of substance

Composition of substance

Hazard classification

First Aid

Fire Fighting measures

Spill and clean up

Handling and Storage

Exposure and PPE

Physical/ Chemical properties

Stability and reactivity

Toxicological information

Ecological

Disposal

Transportation

**IT SHOULD BE ASSUMED THAT A SUBSTANCE IN THE WORKPLACE  
MAY BE HAZARDOUS UNLESS WRITTEN EVIDENCE FROM THE  
SUPPLIER OF THAT SUBSTANCE STATES OTHERWISE**

**Classification of Hazardous Substances**



New International symbols

Classification, Labelling & Packaging (CLP) Regulations came into effect January 2009 phased in and due to be complete by June 2015 to replace the UK CHIP Regulations.

The regulations give a duty to suppliers of hazardous substances to;

- Identify the hazards (dangers) of the substances according to the new international 'classification'
- Package them safely.
- Provide information about the hazards to the consumer, e.g. labelling and product information for handling, transportation and stowage.
- The CLP Regulations form part of the Global Harmonisation System (GHS) which aims to provide;
- More information
- More emphasis on environmental concerns
- International standard for classification symbols

### Workplace Exposure Limits (WELs)

WELs is British Occupational Exposure Limits and is set in order to help protect the health of workers. WELs relates to the concentrations of hazardous substances in the air, averaged over a specified period of time, referred to as a time-weighted average (TWA). Two time periods are used:

- Long – Term Exposure (8 hours) and
- Short –Term Exposure (15 minutes).

Short-term exposure limits (STELs) are set to help prevent effects such as eye irritation, which may occur following exposure for a few minutes.

HSE document EH40 gives guidance on WELs for many substances

This information can be also be found on the MSDS or from the manufacturer

## **A SUBSTANCE NOT ASSIGNED A 'WEL' IS NOT NECESSARILY SAFE**

### **Hierarchy of Control**

It is important to ensure that any potential exposure to hazards is identified before commencing any task, to ensure a Safe System of Work (SSW)

When risks are identified, control measures can be implemented and followed this is called the Hierarchy of Hazard Controls, they include;

- **Eliminate** - the need to use the substance or carry out the process
- **Substitute** - the substance or process for a safer option
- **Isolate** - the substance from person/persons who are risk of injury
- **Engineering Controls** - e.g. Local Exhaust Ventilation (LEV) systems
- **Administration Controls** – HOD's and Managers can take measures to ensure;
  - job rotation of personnel
  - good training
  - ensure correct PPE worn
  - signage and barriers are suitable and erected
  - suitable Emergency and First Aid arrangements are in place (safety showers, eyewash stations, first aid trained persons)
- **Personal Protective Equipment (PPE)** - Select and enforce the wearing of the correct PPE.
- These control measures are used in combination with each other however you should only go to the lower control level if it is not reasonably practicable to use the higher level.
- PPE is to be used as the last control measure after all other controls measures have been exhausted.

### **Risk Assessment (RA)**

The requirement is to make a suitable and sufficient assessment of the risk created by each hazardous substance or area of work involving hazardous substances and of the steps that need to be taken to control exposure.

Utilising the information aforementioned to identify the substance or product of a process and employing the Hierarchy of Control an informed RA can be carried out.

Model written RA's are available for some areas of work, e.g. BS 4163:2007 and CLEAPSS Hazcards (for chemistry), and these can be used if they are customised for the particular circumstances found in the college. However it is likely that for many hazardous substances models will not be available and therefore full RA's will have to be prepared, even CLEAPSS model assessments if not clearly 'customized', or the use of risk assessments not designed for the particular work undertaken are insufficient risk assessment to fulfil the requirements of the law. After evaluation of the risks the Regulations require provision and maintenance of control measures, and if appropriate, monitoring of exposure and health surveillance.

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All persons involved in the process or task covered must be involved in the RA process.

RA's (including Model versions) are to be reviewed annually and when previous assessments are no longer valid, for instance after there have been significant changes to the work or the information on the substance has been altered. A form, which can be used for written assessments, appears at the end of this section.

Managers and heads of departments are responsible for ensuring that all the hazardous substances within their areas of control are identified and added to the **Chemical Stock List** and assessed. Technical information is available from the suppliers of the substances (MSDS) and this should be obtained and used as a basis for assessment. Workplace exposure limits must be identified and taken into account, as an indicator of risk.

Assessment MUST consider:

Whether it is practicable to use a non hazardous or a less hazardous substance

The risks of exposure to the substances e.g. in each particular activity, taking into account the age of user, temperament and understanding of user, the method of use, the quantities, the dilutions, and the locations involved

Risks associated with transportation, storage and spills of substances – spill kits will be needed in some areas.

### **Fume Cupboards**

Prior to any new experiment being undertaken within a fume cupboard it will be necessary to complete a risk assessment exercise. This may be considered as part of a COSHH assessment, but will include elements additional to chemical safety. The risk assessment will *identify the hazards* (ie substances or conditions with the potential to cause harm), and *evaluate the associated risks* (ie the likelihood of that harm being realised). The assessment must consider conditions other than the normal operating ones, ie spillage, catastrophic failure of any component within the system (ie fan), or any other condition likely to present adverse conditions. The assessment must consider the competence of those undertaking the work, and will determine the necessary levels of supervision. In all but low risk situations, where the reasoning of the assessment can be readily demonstrated, it will be necessary to produce a written record of the assessment.

Where a number of risks are anticipated it is useful to employ a *rating system* to allow comparison between risks, and enable appropriate priorities to be allocated. Site Local Safety Advisers should be approached for additional information on numerical risk assessments techniques.

Frequency of maintenance.

The primary legislative requirements are found in the Control of Substances Hazardous to Health (COSHH) Regulations, which require control measures used to prevent exposure to hazardous substances to be maintained in an efficient state, in efficient working order and in good repair. In addition thorough examination and tests must be carried out at least once every fourteen months. In practice this frequency of testing may be increased in accordance with the risk assessment of the effects of system failure. The schedule recommended in this code of practice includes elements at both six and twelve monthly intervals. Where system failures would result in significantly high risk of exposure it may be appropriate to halve the indicated intervals, or supplement them with additional measures. These examinations are additional to the pre-use operator checks.

## **Control Measures**

As far as possible exposure to hazardous substances must be prevented or adequately controlled by measures other than personal protective equipment. This means the provision of control measures such

- Administration Controls (see hierarchy of control) and should be regularly reviewed.
- Engineering Controls (see hierarchy of control) - as adequate cleaning and local exhaust ventilation (LEV), for woodworking machines and for brazing processes and fume cupboards for science. Engineered controls must be thoroughly examined and tested after installation and in the case of LEV equipment this must be carried out at least once in every 14 months and there must be a visual inspection weekly.
- PPE must be the last resort after all other control measures.

Where tight fitting respiratory protective equipment (RPE) is provided to supplement any control measure, it must be suitable for the wearer (the fit must be tested) and the likely exposure. Personal protective equipment (PPE) must be 'CE' marked, the wearer must be trained to use the PPE, and it must be properly maintained and stored.

Control measures must be well designed, effective and properly used. Measures including PPE must be properly installed and well maintained. Non-disposable RPE must be inspected once per month, and if appropriate tested, at suitable intervals.

Records of all inspections, examinations and tests should be kept for at least 5 years.

## **Monitoring of Employees' Exposure**

Monitoring of exposure shall be carried out when it is necessary to ensure that exposure is being adequately controlled. Records of the monitoring carried out shall be kept for at least 40 years in the case of the personal exposures of identifiable employees/others and for 5 years in any other case.

## **Storage**

UTC departments are to comply with the Health Safety and Environmental guidance on the correct and safe storage of Hazardous substances The MSDS and or the manufacturer will give guidance on the substance.

**Prior** to using and storing a substance careful thought as to the safe way to store it and it's compatibility with other products must be considered it may not be practical or cost effective to store this substance safely

- Generally different products should be stored in separate areas
- Incompatible materials should be stored away from each other, for example:
- Acidic and alkali, liquid and powder substances could be stored separately
- Understand safe transportation from storage areas to desired location.

## **Disposal**

UTC departments are to comply with the Health Safety and Environmental guidance on the correct and safe disposal of Hazardous substances The MSDS and or the manufacturer will give guidance on disposal of the substance.

**Prior** to using a substance careful thought must be given as to the safe way to dispose of it, as this may not be practical or prove costly to have it disposed of in the correct manner and safely.

**SEEK TO USE A SAFER ALTERNATIVE IF POSSIBLE**

## **Personal Protective Equipment**

Should PPE be required after conducting the RA, it is important that it affords the correct level of protection for the duration of the task /operation.

The MSDS will give vital information on the type (filter types, full ventilated masks etc) yet should form part of an overall management arrangement for the SSW.

- PPE should be compatible and suitable for the task
- Fit the wearer correctly
- The wearer must be informed/trained on its correct use
- Maintained and stowed correctly
- Kept clean before and after use
- A system of replacement if defective

## **First Aid Arrangements and Emergency Procedures**

### **First Aid**

Further to UTC first aid arrangements required under the Health and Safety at Work Act, specific arrangements and equipment may be required when undertaking a task or operation where a hazard to health is present.

These may include;

- Burns kits

- Specialised first aid kits

The MSDS will give guidance as will the manufacturer.

HOD's are to ensure suitable training and Information is given to staff as necessary to deal with any first aid situations.

### **Emergency Procedures**

Information gathered from the MSDS, manufacturer, risk assessment will enable you draw up suitable plan for emergencies.

They may involve topics such as;

- spillage clean up kits
- containment equipment
- decontamination equipment
- informing Local Authorities and Emergency Services

HOD's are to ensure suitable training and Information is given to all staff as necessary to deal with any emergencies.

All Emergency Equipment must be MAINTAINED and READILY AVAILABLE

### **Equipment**

Any equipment required for COSHH in the UTC can requisitioned through the PDO/WSC and departments are responsible for the upkeep maintenance of such equipment.

Defects are to be reported to PDO/WSC as soon as possible so as to affect repair or replacement.

### **Conclusions**

Carrying out the assessment work is a vital part of compliance with the Regulations and the purpose of carrying out assessments is to ensure that sensible decisions are reached about how to remain healthy alongside hazardous substances. The precautions which are to be taken are determined by the nature and the degree of risk in the circumstances of each case. An assessment form which can be used for these assessments follows on the next page.

VERSION CONTROL SHEET

**POLICY NAME: COSHH Policy**

**Policy Prepared by: Richard Budd**

Document date	Filename	Mtg submitted	Summary of changes required
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Feb 2014		PHSC	New Policy
May 2019			Reviewed - SW

# COSHH Assessment Form

Annex A

<b>Area:</b>	
<b>Procedure:</b>	
<b>Substances and Hazards (including any WEL):</b>	
<b>Control Measures Necessary:</b>	
<b>Checks on Controls:</b>	
<b>Disposal Procedures:</b>	
<b>Emergency Action:</b>	
<b>Conclusions:</b>	
<b>Name of Person Carrying out Assessment:</b>	
<b>Date:</b>	
<b>Review Date</b>	

# COSHH ASSESSMENT FLOWCHART

Annex B



