Notes to aid COSHH and Risk Assessment

For explanation of CoSHH and risk assessment please read with SPG- 23-09

Risk Assessment

This assessment should give basic information about the project or work and who is in responsible for management of the work. It will provide an overview of all hazards likely to be encountered whilst carrying out the work covered by this assessment.

Title of project or activity
You should provide the title of the project or activity in this section.

Principal investigator / Responsible person
You should provide the name of the principal investigator or the manager who is in charge of the activity in this section.

School and Dept
You should provide the name of your School (eg School, Institute or Unit etc).

Date of assessment
You should provide the date on which the assessment was carried out.

Date for review
The assessment should be reviewed regularly, at a minimum of every 5 years, and especially if work practices or location change.

Location of work
You should provide the name of the building and room numbers or details of location for field work.

Brief Description of the work
This should include a brief summary of the work included under this risk assessment specifying the nature of the work. This description should be worded in such a manner as to enable other people and non-experts to understand the exact nature of the work (eg workers, safety officers or HSE inspectors).

Hazards reasonably expected
Consider all aspects of the work and tick the box next to the hazard. Ticking some hazards will identify that there is a need for further assessment eg in the case of use of chemicals or radioactive materials, or will point to the need for a workstation to be assessed

Who might be harmed
You should provide details of who will be doing the work and if any other people will be affected by the work. Specify which persons might be directly at risk of exposure to the hazardous substances in the work (eg staff, students) and who might be indirectly at risk (eg porters, cleaners, or maintenance workers). Could people sharing your workplace be affected by your work (eg many labs host more than

one working group). Consider whether any particular groups of people might be at increased risk or adversely affected by the work and might not be able to do the work. These include new or expectant mothers, young persons under 18, disabled workers, those allergic to particular substances, and employees who may be more susceptible to some illnesses because of their individual health status

Other assessments or procedures that may apply
List all assessments or guidance notes that may have already been generated which apply to the work described above

CoSHH assessment

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Location of work
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Brief Description of the work
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Section 2 - Hazardous substances (used and generated)

In this section you need to describe the hazardous substances which will be used or to which people could be exposed in the work. Where practicable, non-hazardous or less hazardous substances must be substituted for hazardous ones

Hazard tick box – check boxes that indicate the hazards identified within the assessment eg if there are flammables used check the flammables box.

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Chemicals are classified under the Chemicals (Hazard Information and Packaging for Supply) Regulations (CHIP) as one or more of the following - Very toxic, Toxic, Harmful, Corrosive, Irritant or Sensitising. Identify all chemicals used in the work being assessed and name them in the column labelled hazardous substance.
Carcinogens, mutagens and teratogens should be listed separately
Dusts or fumes which be used or may arise as a consquence of the work should be listed separately
Asphyxiants which act by reducing the oxygen content of the atmosphere. These include inert gases, such as nitrogen and argon, but also certain flammable gases, should be listed separately.

Identify the risk with each chemical and add as text comment into the column labeled Risk Identified, this information is available in MSDS sheets or on supplier web pages. Use of R and S number is not the preferred method as the assessment should be understandable by all staff/students

Where Substances are assigned a workplace exposure limit this should be included in column 4

Any other substance hazardous to health
Any other substance hazardous to health not specifically covered by CHIP (eg biological material, medicines, pesticides, cosmetics).

Human diseases, illnesses or conditions associated with hazardous substances
You should provide details of any human diseases, illnesses or conditions associated with exposure to the hazardous substances. For example, many organic solvents can cause respiratory irritation or asthma.

Potential routes of exposure
You should provide details of the potential routes of exposure to the hazardous substances. The potential for hazardous substances to cause ill health will depend upon the manner in which the substance can harm the body (target organs, or systems, at risk), route of entry to the body by which the substance is hazardous (hazard route) and the route of entry which leads to exposure to the substance (exposure route). Substances may be harmful by one or more of the following exposure routes. For example, the hazardous substance could enter by inhalation (eg respiratory problems, transfer into circulatory system, CNS disorders), ingestion (eg poisoning, gastrointestinal problems), injection (eg hypodermic needle stick, or cut by contaminated sharp, poisoning, transfer into circulatory system, CNS disorders), or by absorption (eg corrosive burns, dermatitis, absorption into the body through the skin, transfer into circulatory system, CNS disorders).

Section 3 Risks

In this section you need to describe the risks relating to the hazardous substances which will be used or to which people will be exposed in the work. You must consider the ways by which harm could be caused from exposure to the hazardous substances in your work. You will then need to make an assessment of the overall level of risk of harm to human health and the environment from exposure to the hazardous substances in the work.

Use of hazardous substances
You should provide details of the use of hazardous substances or how people will be exposed to the

substances. For example will the work be small, medium or large scale an estimate of qunatity in units of measurement such as gram, microgram or litre etc.

Maximum amount or concentration used
You should provide details of the maximum amount or concentration of hazardous substances used or to which people will be exposed. Note the scale of your proposed operation and the significant risks of harmful exposure of humans or the environment if things go wrong such as in the absence or failure of control measures or a catastrophic event

Frequency of use
You should provide details of how often the hazardous substances will be used or the activity carried out or how often people will be exposed to the hazardous substances.

Who might be at risk
You should provide details of who will be doing the work and if any other people will be affected by the work. Specify which persons might be directly at risk of exposure to the hazardous substances in the work (eg staff, students) and who might be indirectly at risk (eg porters, cleaners, or maintenance workers). Could people sharing your workplace be affected by your work (eg many labs host more than one working group). Consider whether any particular groups of people might be at increased risk or adversely affected by the work and might not be able to do the work. These include new or expectant mothers, young persons under 18, disabled workers, those allergic to particular substances, and employees who may be more susceptible to some illnesses because of their individual health status.

Section 4 Controls

Containment
You should provide details of where the work will be done and how the hazardous substances will be properly contained. It's important to consider the potential routes of exposure in deciding what sort of control measures will be required. Consider if the work can be done in a laboratory or will specialised facilities be required. Will the work require total enclosure (eg glove box, flexible film isolators or Class 3 safety cabinets), partial enclosure (eg fume cupboard, Class 1 or 2 safety cabinets), local exhaust ventilation (eg exhaust ducting from machine tools, soldering or welding operations, some laboratory equipment) or general ventilation (eg animal rooms or containment laboratories). You should also consider whether you will need to control access to the area where the work will be done by limiting it to authorised persons only.

Other controls
You should provide details of any special control measures that you intend to use for this work (eg avoidance of use of sharps, hygiene measures etc).

Storage of hazardous substances
You should consider at this stage the quantity you need and the facilities required to store the hazardous substances or materials. Special conditions may also be required such as ventilation and security. You should take care not to store incompatible chemicals with or close to each other.

Personal protective equipment.

If chosen, personal protective equipment (PPE) should be selected and fitted to the person who uses it. Where PPE is the main control method it should where practical be used in conjunction with another method of PPE and safe work practices. A full assessment should be made taking into consideration the potential routes of exposure to the hazardous substances incompatibilities and break through time of material used in PPE.

Waste management and disposal
You should provide details of how hazardous substances will be managed and disposed of when they are no longer required. Consider the types of waste materials (eg solids, liquids, gases, organic, inorganic, mixed etc). Some substances may need to be inactivated before disposal. Use puncture proof, leak proof, sealable containers for sharps (Sharps bins). Dispose of waste safely using appropriate containers and route. Waste must be safely stored, transported and disposed.

Monitoring exposure and Health surveillance
In some cases specialized monitoring may be required to measure personal exposure or environmental levels of certain especially harmful hazardous substances (eg allergens or certain very toxic chemicals). Health surveillance is required for certain occupational diseases or adverse health effects (eg cancer, allergy, asthma, dermatitis) to check that people exposed to hazardous substances are not made sick from their work (eg work with carcinogens, allergens, asthmagens or respiratory sensitisers)..

Section 5 Emergency procedures

You should provide details of the procedures that will be required to deal with accidents, incidents and emergencies that could cause any employee or other person to be exposed to a hazardous substance or an accidental release of hazardous substances. The manager, principal investigator and workers are responsible for ensuring that accidents and emergencies are properly dealt with since these are the experts in the hazardous substances and the work. You need to assess the potential for accidental exposure and implementing emergency procedures for your work. Emergency procedures and plans must be prepared in advance.
Accidents, incidents and emergencies must be reported immediately or as soon as practicable to supervisors, safety officers or managers and using the accident, incident or near miss reporting form on the Safety Office website.

Minor spillage or release
You should provide details of the procedure that will be used to deal with a minor spillage or release. Specify the contents of any spillage kit.

Major spillage or release
You should provide details of the procedure, including containement, that will be used to deal with a major spillage or release. Specify the contents of any spillage kit. If there is a risk of vapours, fumes or liquid release into other areas of the building then the fact that other areas need to be alerted should be taken into consideration and included . Where there is a risk that an electrical ignition could cause an explosion then the building should be evacuated without sounding the alarm.

Fire
You should provide details of how you would deal with a fire affecting the hazardous substances in the

work. Specify the best types of fire fighting methods which can be used to deal with an emergency.

First aid
You should provide details of the first aid procedures which would be needed to deal with the specific hazardous substances in this work in case of an accident or emergency. Standard procedures which are specified must be used for dealing with accidents involving exposure to phenol, hydrofluoric acid or cyanide. These are washing with copious amounts of water and applying polyethylene glycol (PEG) 300 for phenol, oxygen for cyanide, and washing with copious amounts of water and application of calcium gluconate gel for hydrofluoric acid. An emergency shower or other measure may be needed for immediate treatment for some hazardous substances.

Section 6 Training and Approval

In this section the principal investigator or manager must sign and date the form to state that they have reviewed and approved the risk assessment. The manager, principal investigator or person in charge of the work is responsible for ensuring the risks associated with their work are properly assessed and recorded. The principal investigator or manager may delegate the work of preparing a risk assessment to any competent member of the team but responsibility for approving the risk assessment remains with the principal investigator or manager. The principal investigator or manager must decide on the level of supervision required to do the work. Some work may not be carried out without direct personal supervision, some may not be started without the advice and approval of supervisor while other work can be carried out without direct supervision. All workers must be adequately supervised and this is especially important where highly hazardous substances, specialist facilities or equipment are concerned..