

SBMS guidance note (SBMS08):

Preparing a spill response plan

Before working with chemicals, workers should determine what could go wrong and how they might respond to a spill. As a result of this evaluation, written protocols for use in the event of a spill can then be prepared. These protocols need to be communicated to all persons who might be affected by a spill, and to the teams that have been trained to respond to spill situations in your area. The best place to document spill response protocols in the laboratory is in the COSHH form and safe system of work. It is a requirement of the COSHH regulations that we prepare emergency plans, so it is good practice to always create written spill protocols before using a chemical that may be hazardous in a spill situation.

1. Evaluate hazards

When spills occur, a quick appropriate response can prevent serious consequences. However, the wrong response can make things worse. In order to help the spill teams respond promptly and appropriately, workers should evaluate the potential hazards in advance of using the chemicals and provide **safe systems of work (SSW)** including procedures to be followed in case of a spill. This information can be found on the Material Safety Data Sheets (MSDS's) accompanying the chemicals when they are purchased, and should be transcribed into a practical instruction on the SSW forms.

Of most concern in spill situations are chemicals which are:

- air reactive
- water reactive
- flammable
- polymerizable
- corrosive
- highly toxic

Before ordering these substances workers should be aware of the procedures for handling, storage, and disposal and specify them in the SSW form including any specific measures to be taken in the event of a spill.

2. Specify Safe System of Work (SSW) and spill response plan

Based on these hazards, the assessor can then determine and include in the SSW forms:

- appropriate personal protective equipment (PPE) for spill response (e. g. gloves, respirators, etc.)
- types of fire suppression equipment
- appropriate cleanup materials
- first aid procedures

Because each building and research area may have different hazards, a generic spill response plan may not be suitable for all areas. This guidance note is intended to provide a framework for a plan to be formulated in each work area. The checklist below may help identify some of the issues that should be addressed in plans for dealing with chemical emergencies. The exact contents of any plan should, however, reflect the outcome of a thorough risk assessment and will depend on a range of factors including the nature of the substances being considered, the location and the personnel involved.

- Action to be taken in response to emergency and who is designated to perform tasks (e.g. spill clean up, liaison with Security, emergency services etc)(see also guidance note SBMS09).
- Evacuation instructions (specific to each building/area)
- Emergency contact telephone numbers (work and home numbers where appropriate) e.g.
 - Security (for contacting emergency services) 502257
 - Senior departmental personnel identified as key contacts in emergency (e.g.Head of Institute, head of Research Group, and Floor manager)
 - First-aiders
 - Local spill response team.
 - Estates & Buildings
 - Safety Advisor : Ann Diment 650 8311
- Clearly defined line of authority/responsibility for each area.
- Location of equipment and materials identified as being necessary to respond to emergency and any appropriate instructions.
- Name and contact details of individuals trained/authorised to use equipment/materials
- Location of safety reference materials (e.g. COSHH assessments and material safety data sheets)
- Arrangements for proper disposal of cleanup materials (in most cases, as hazardous waste) including contaminated tools and clothing.
- Means for Decontamination of the area following the cleanup
- Arrangements for inspection, maintenance and repair of equipment and materials to be used in emergency.
- Date of preparation of plan and date of scheduled review.

The plan should be communicated to all workers and displayed on noticeboards and with the spill kits. To help prepare the plan, an additional guidance note, SBMS09, outlines recommended response to a chemical spill.

Any comments on this document should be sent to the SSA at sbms-safety@ed.ac.uk or by telephone on 650 8311.

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