



# Spill Clean-up

## General Spill Clean up Procedure

(Adapted from WHO Laboratory Biosafety Manual, 3<sup>rd</sup> Ed. 2004)

- Notify all staff in the immediate facility that a spill has occurred
- Wear gloves and protective clothing, including face and eye protection if indicated.
- Bring Spill Kit to the site of the spill.
- Cover the spill with cloth or paper towels to contain it.
- Pour an appropriate disinfectant (effective against the agent(s) spilled with a determined contact time and concentration) over the paper towels and the immediately surrounding area (generally, 5% bleach solutions are appropriate). This disinfectant must be freshly made.
- Apply disinfectant concentrically beginning at the outer margin of the spill area, working toward the center.
- After the appropriate contact time (e.g. 30 minutes), clear away the materials. If there is broken glass or other sharps involved, use a dustpan or a piece of stiff cardboard to collect the material and deposit into a puncture resistant container for disposal. Glass fragments should be handled with forceps. Dustpans should be autoclaved or placed in an effective disinfectant.
- Clean and disinfect the area of the spillage, if necessary repeat the steps above.
- Dispose of contaminated materials into a leak-proof, puncture-resistant waste disposal container.
- After successful disinfection, inform the competent authority that the site has now been decontaminated.

## Small spill inside a Biological Safety Cabinet

(The quantity of liquid is user defined by local risk assessment)

Worker is not considered contaminated unless actual splash or spillage onto their person occurred. Gloves and sleeves may be considered contaminated. These should be removed prior to removing hands from BSC. Fresh gloves should be donned and if necessary fresh lab gown should also be donned. BSC should not be turned off, nor should the sash be lowered. Follow General Spill Clean up Protocol.



## Spill Clean-up

### **Large spill inside a Biological Safety Cabinet extending past the grill of the BSC** (The quantity of liquid is user defined by local risk assessment)

Worker may be considered to be contaminated. Outer layer of protection may be considered contaminated. This should be removed at the BSC. Inner layer of protection is not considered contaminated unless actual splash occurred inside lab coat. Personnel should vacate the laboratory for an appropriate period of time to allow BSC to filter the contaminated air and to allow aerosols to settle. Exposed persons should be referred for medical attention. The laboratory supervisor or responsible officer should be informed at once. Appropriate PPE must be worn on re-entry. Follow General Spill Clean up Protocol. The entire surface of the BSC, including the work surface, the sides, back and interior of the glass and the catch pan must be decontaminated. The catch pan must be flooded with an appropriate disinfectant allowing an appropriate contact time prior to removing the work surface to clean the catch pan. Never should the person's head enter the BSC during decontamination. All items inside the BSC at the time of the spill must be decontaminated.

### **Spill outside a Biological Safety Cabinet** (Adapted from WHO Laboratory Biosafety Manual, 3<sup>rd</sup> Ed. 2004)

- All persons should immediately vacate the laboratory.
- The contaminated worker removes the outer layer of protection. The worker proceeds through normal exit procedure including effective hand washing. If a large spill: The worker removes the outer layer of protection next to spill. Depending on the local risk assessment, the worker may proceed to a change room and removes all items of inner layer of protection and places them in an autoclave bag. The worker proceeds to wash any other potentially contaminated parts of the body.
- Exposed persons should be referred for medical attention.
- The laboratory supervisor or responsible officer should be informed at once.
- If the laboratory does not have a central air exhaust, entrance should be delayed (e.g. for 24 hours) to allow enough air exchanges to clear away the aerosols and to allow heavier particles to settle. Signs should be posted indicating that entry is forbidden. Once spill is cleaned up as per the general spill clean up procedure, personnel must doff contaminated PPE and don clean PPE prior to returning to work in the laboratory. Depending on the nature and size of the spill, a complete room decontamination may be warranted.



## Spill Clean-up

### **Spill inside a centrifuge (Infectious material visible upon opening the centrifuge)**

If a breakage occurs or is suspected while the machine is running, the motor should be switched off and the machine left closed (e.g. for 30 minutes) to allow settling.

Should a breakage be discovered only after the machine has stopped, the lid should be replaced immediately and left closed (e.g. for 30 minutes). Inform the responsible officer. Appropriate PPE must be donned (respirator or PAPR, solid front gown with tight fitting cuffs, gloves and strong gloves covered in gloves) prior to opening the centrifuge. All personnel not involved in the spill clean up, must exit the area of the spill. Spill should be covered in absorbent towels and a non-corrosive disinfectant known to be active against the organism concerned should be poured over the spill being cautious not to create aerosols. Whenever possible, consult the centrifuge manufacturer's specifications on the unit to confirm the chemical compatibilities. All broken tubes, glass fragments, buckets, trunnions and the rotor should be placed in a non-corrosive disinfectant (forceps must be used to handle and retrieve glass debris). Unbroken sealed safety cups may be placed in disinfectant and carried to a BSC to be unloaded. The centrifuge bowl should be swabbed with the same disinfectant, at the appropriate dilution, and then swabbed again, washed with water and dried.