**IBC Guidelines on Facility/Laboratory Decontamination**

When PC2 certification of a laboratory/facility is no longer required, the facility manager must ensure that all surfaces within the facility/laboratory and equipment used to handle or store GMOs have been decontaminated. These include laboratory bench tops, biosafety-cabinet work-surfaces, refrigerators, freezers, incubators, centrifuges, laboratory floors and walls.

Prior to decontamination, ensure that all laboratory debris and waste is safely removed. For disposal of GMO waste, please refer to the OGTR’s [Guidelines for the Transport, Storage and Disposal of GMOs (2011)](http://www.ogtr.gov.au/internet/ogtr/publishing.nsf/Content/tsd-guidelines-toc/%24FILE/tsd-guidelines.pdf)

**Recommended disinfectants for decontaminating laboratory benches, equipment and biological safety cabinets.**

*80% ethanol (v/v)*

Should only be used to decontaminate surfaces where GMO work is carried out. This includes laboratory benches. 80% ethanol (v/v) may be used from a dispensing bottle but should never be sprayed as a mist because of its volatility and flammability. 80% ethanol (v/v) should only be used sparingly in biological safety cabinets and not on equipment that is likely to cause sparks.

*F10*

F10 is a good alternative to 80% ethanol (v/v) or clean-up that involves microbiological contamination. F10 is a total-spectrum disinfectant that can be used on laboratory equipment and work surfaces. It can also be used by laboratory personnel to disinfect their hands. Unlike sodium hypochlorite, diluted solutions of F10 remain active for long periods of time. In addition, F10 is safe for use in animal breeding and housing facilities. F10, at a dilution of 1:250, has a recommended contact time of 1 minute and is non-corrosive. Ready to use diluted F10 spray bottles are also commercially available at a dilution of 1:250. F10 fog provides a quick, easy and effective disinfection of air spaces, all surfaces, walls, ceilings and hard to reach places. F10 aerosol foggers are commercially available as single use canisters for complete room disinfection (approximately 30 cubic meters).

*Virkon*

Virkon is a broad-spectrum disinfectant effective against a wide variety of viruses, bacteria, fungi and mould. It is suitable for use in disinfecting laboratory benches and equipment. It must be made up to 1% (w/v) as described by the manufacturer. 1% Virkon solutions remain stable for up to seven days and are soil tolerant. The activity level of Virkon can be tracked by the degree of fading from pink to clear. For surface disinfection, a minimum 10-minute contact time is recommended. Although corrosive, virkon is not as corrosive as 1% bleach.

*1% Sodium Hypochlorite (1% Bleach)*

Sodium hypochlorite can be used to disinfect large liquid cultures and it is recommended that cultures be made up to at least 1% sodium hypochlorite (10000 ppm available chlorine) and held for at least 1 hour before disposal. Commercially-available hypochlorite solutions can range from 4% to 12.5% available chlorine, so must be checked when diluting. 1% sodium hypochlorite is not recommended for surface decontamination but if used must be made fresh every day.

**Decontaminating laboratory walls and floors**

F10 or household disinfectant should be used to wipe down or mop large surface areas such as laboratory walls and floors. Do not use 80% ethanol as its flammability and fumes pose a health hazard for the person carrying out the decontamination. Similarly, bleach is not recommended for large-scale decontamination because the resulting chlorine fumes are a health hazard.