

## School of Biomedical Sciences

### Guidance note SBMS05 Disinfectants of choice and recommended dilutions.

For general guidance on disinfectants including any recent legislative updates please see University Guidance,

Available from : <http://www.docs.csg.ed.ac.uk/Safety/bio/guidance/blm/disinfectants.pdf>

**Virkon** is a detergent-based disinfectant comprising a mixture of peroxygen compounds, surfactants and organic acids. This is supplied as a powder and should be made up to 1% in water for routine use and 2% for spillages. The pink colour indicates activity, which deteriorates at 10% per week in solution. Recommended contact times for Virkon are as follows:-

Item	Virkon Concentration	Contact Time
Plasticware	1% solution	at least 2 hours fully immersed
Liquids eg. samples, culture supernatants etc	final concentration of 2% when liquid is added	at least 2 hours
Surfaces including benches and floors	1% solution	wipe over
Minor surface contamination	1% solution	10 mins
Larger spillage	granules	10 mins

Metal surfaces (including Safety cabinets) should be cleaned with a detergent before being disinfected, as if Virkon or Hypochlorite disinfectants are left in contact with metal for any extended length of time they cause eventual pitting of the surface

**Sodium hypochlorite (Chlorox)** Hypochlorite is used at 1000-10,000 ppm available chlorine. This is approximately equivalent to 1-10% sodium hypochlorite solution GPR (Chlorox, from VWR), assuming an undiluted strength of 12-14% w/v available chlorine.

General use - surface disinfection 1000 parts per million (ppm) (10ml per litre)

Pipettes, discard jars 2500 ppm (25ml per litre) as above

Blood spillage 10000 ppm (10ml per 100ml)

Contact times as for Virkon

**Alcohols:-**70% ethanol in water and 60% isopropanol in water should only be used for disinfecting physically clean work surfaces after use. These are flammable and care should be taken that they do not come near a naked flame or other heat sources. Alcohols are not suitable for cleaning up after a spillage.

**Presept (Sodium dichloroisocyanurate):-**This is a chlorine-releasing agent. It is inactivated by large amounts of organic matter and attacks metals including stainless steel. It is suitable for blood and viruses including hepatitis and HIV, but not for tuberculous material and must not be used for centrifuges, moving parts of machinery or metal surfaces unless rinsed off quickly afterwards. Solutions should be made up freshly each day and must be kept away from direct sunlight in lidded containers.

General use - surface disinfection 1000 ppm (1 x 2.5g tablet in 1.4 litres)

Pipettes, discard bottles/jars 2500 ppm (1 x 2.5g tablet in 560 ml) overnight contact.