APPENDIX 15
RECOMMENDED DISINFECTANTS FOR LABORATORY USE

Disinfectant	Active against							Limitations	Hazards	Typical Uses
	Fungi	Vegetative Bacteria	Myco-bacteria	Spores	Lipid viruses	Non lipid viruses	TSE			
Hypochlorites (*e.g. Chloros, Presept* powder/tablet)	+/-	✓	+/-	+/-	✓	✓	✓	Inactivated by organic matter. Corrosive to some metals. May damage rubber. Not compatible with cationic detergents. Working solutions need to be changed daily.	Irritant. Releases chlorine gas on contact with acids. Releases bis chloromethyl 3 ether (a carcinogen) on contact with formalin or formaldehyde.	• 1,000 ppm for general surface disinfection of benches and equipment • 2,500 ppm for discard containers • 10,000 ppm for spillages • 20,000 ppm for work involving prions/TSE agents (Sodium dichloroisocyanurate dihydrate – NaDCC – not effective).
Peroxygen compounds (*e.g Virkon*)	✓	✓	✗	+/-	✓	✓	✗	Corrosive to some metals. Releases hypochlorous acid, but less so than hypochlorites.	Powder is irritant. Made-up solutions have low toxicity and no irritancy	Due to its wide spectrum of activity, and safety profile, *Virkon* is suitable for a wide range of applications in routine bacteriology, virology and cell culture laboratories. The powder can be used directly in spill management.
Alcohols (*e.g.* 70% industrial methylated spirits)	+/-	✓	+/-	✗	✓	✗	✗	Poor penetration of organic matter, and should only be used on physically clean surfaces.	Flammable.	Surface disinfection of clean surfaces, electrical equipment should be disconnected from the mains before being treated.

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Quaternary ammonium compounds (*e.g. Distel* (*formerly Trigene), Tego 2000, Microsol*)	+/-	✓	✗	✗	✓	+/-	✗	Inactivated by protein and some plastics. Not compatible with anionic detergents.	Non-toxic. May degrease skin on prolonged contact	General surface disinfectant, spillages and discard. Follow manufactures instructions for appropriate dilutions.
Chlorine dioxide (*e.g. Tristel*)	✓	✓	✓	✓	✓	✓	✗	*Tristel* is an aqueous solution of chlorine dioxide and requires activation before use.	Not a skin or respiratory sensitiser or irritant.	Surface disinfection, spills and discard where spores or resistant bacteria (*e.g.* mycobacteria) may be present.

Notes:
1. Always check all relevant product and material safety data sheets and risk assessments and safe systems of work.
2. Be aware also of any local rules and all relevant storage and disposal regulations applying to these chemicals.
3. Remember to use fresh solutions at the correct concentration, and allow sufficient exposure time for the disinfectants to act.

✓= Recommended +/- = Some/variable activity ✗ = Unsuitable

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