

BIOSAFETY MANUAL



Document no.:
RTPC2/SOP16

Edition/Revision: 1/0

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Disinfection of Equipments, Tools and Surfaces

Effective Date: March 2013
Date of Revision: NA

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Purpose of procedure

This procedure has been developed as a regulation to laboratory managers, supervisors, staff and users for disinfection of equipments, tools and surfaces

Applicable to

All users of facility

Responsibilities

The facility manager is to ensure authorised users are trained and authorised visitors are accompanied by an authorised user

Steps

1. Select a proper disinfectant according to:
 - Type of micro-organisms, amounts and presence of spores
 - Physical situation (surface type, suspension, etc.)
2. Disinfection of the surface, equipment and tools, use bleach 20% v/v, ethanol 70% v/v (ethyl alcohol 80% v/v) or propan-2-ol (isopropyl alcohol 60-70% v/v) solutions by wiping accordingly until clean.
3. Disinfection of microorganisms:

MICROORGANISM	DISINFECTANT
Gram-positive bacteria (non-sporing)	Any potent bactericide
Gram-negative bacteria	Alcohols – Ethanol 70% v/v (ethyl alcohol 80% v/v) or propan-2-ol (isopropyl alcohol 60-70% v/v) solution for 5 minutes
Acid fast bacteria	Alcohols – Ethanol 70% v/v (ethyl alcohol 80% v/v) or propan-2-ol (isopropyl alcohol 60-70% v/v) solution for 5 minutes
Bacterial spores	Aldehydes (Formalin 37% w/v formaldehyde gas in water) for 10 minutes
Viruses - hydrophilic and lipophilic	Aldehydes (Formalin 37% w/v formaldehyde gas in water) for 10 minutes
Viruses - lipophilic only	Alcohols – Ethanol 70% v/v (ethyl alcohol 80% v/v) or propan-2-ol (isopropyl alcohol 60-70% v/v) solution for 5 minutes
Fungi	Aldehydes (Formalin 37% w/v formaldehyde gas in water) for 10 minutes
Algae	Chlorine bleach (10% v/v for 10 minutes)

Reference: <http://www.adelaide.edu.au/mbs/safety/biosafety/PC2Man-plant.pdf>
<http://oregonstate.edu/dept/larc/sites/default/files/pdf/chlorine-fact-sheet.pdf>
http://www.cdc.gov/hicpac/disinfection_sterilization/6_0disinfection.html

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Training required

The facility manager will demonstrate to authorised visitors and new authorised users. The facility manager will monitor the authorised users to ensure that procedures are being followed

Location

Preparation room and greenhouse