

Safetygram

NCI Frederick

ISM-208

General

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Decontamination & Virus Inactivation

There is nothing magical about disinfectants for decontamination. They are simply chemicals that inactivate the agent by various mechanisms. The ones listed here have all been tested and found to inactivate either adenovirus or HIV when used under the proper conditions:

- Use stocks that have not expired. Read the expiration date on the stock solution.
- Bleach solutions should be made fresh daily.
- Use disinfectants at the proper final concentration.
- Allow sufficient contact time.
- Ensure that the disinfectant is in contact with the agent. For example, clogged tubing or cell pellets resist or prevent penetration by the disinfectant. These require autoclaving.
- Minimize the protein burden. This means cleanup the decontaminate. Proteins (e.g. serum) can interfere with disinfectants. Obviously, the disinfectant will be used during clean up and the materials used for clean up will be autoclaved. After clean up, additional disinfectant will be used to decontaminate.

<i>Disinfectant</i>	<i>Minimum Concentration</i>	<i>Minimum contact time</i>	<i>Form</i>	<i>Virus</i>	<i>Use</i>
Wescodyne	5.0%	30 min.	Solution in water	HIV and other enveloped viruses and not adenoviruses	Decontamination of equipment, spills and personal exposure
Cavicide	Undiluted	30 min., autoclave towel when done	Soaked paper towel	HIV and other enveloped viruses and not adenoviruses	Decontamination of small spills and routine cleaning of laboratory benches, BSCs and incubators
Sporocidin ¹	Undiluted	30 min.	Soaked paper towel	HIV and adenovirus	Decontamination of small spills and routine cleaning of laboratory benches, BSCs and incubators
Sodium Hypochlorite ²	0.5% (e.g. 10% solution of stock Clorox)	30 min.	Solution in water	HIV and adenovirus, also HIV and adenovirus DNA	Decontamination of culture fluids. Decontamination of viral DNA
Q128 ³	1 oz/gallon	Mop liberally and allow to air dry	Solution in water	N/A	Routine floor cleaning.
Discide Ultra Disinfecting Spray	Undiluted	1 min.	liquid	Adenovirus, Herpes, HIV, TB, Staphylococcus E.coli, Pseudomonas, Salmonella	Decontamination of small spills and routine cleaning of laboratory benches, BSCs and incubators (hard, non-porous surfaces)

¹ – Sporocidin contains phenols and contact with skin is not recommended.

² – Regular strength Clorox[™] is an aqueous solution of 5.25% sodium hypochlorite. Using at 1:10 yields a final concentration of 0.525%. The vendor makes at least one other product that is labeled “Clorox” that has a higher concentration of sodium hypochlorite. Other “Clorox” labeled products may contain less sodium hypochlorite. So, read the label on the Clorox bottles to ensure that any subsequent dilutions contain at least 0.5% sodium hypochlorite.

In combination with spill clean-up procedures, post area while decon is in progress to avoid cross contamination and further exposure.