

Actril® Cold Sterilant

Application Brief: Actril Cold Sterilant Efficacy Against Ebola Virus

Efficacy against the Ebola Virus

We have received several customer calls on Ebola virus and whether Actril Cold Sterilant is efficacious against this enveloped virus.

Ebola virus is a severe, often fatal illness in humans that is transmitted through direct contact with blood or body fluids/substances of an infected person with symptoms or through exposure to objects contaminated with infected blood or body fluids/substances. The Center for Disease control released a guidance document in August 2014 outlining environmental infection control measures for Ebola virus. The guidance document recognizes that no products have a direct claim against Ebola virus, and takes the stance that a product with a non-enveloped virus claim is sufficient for inactivating Ebola virus.

The CDC advises: Use a U.S. Environmental Protection Agency (EPA)-registered hospital disinfectant with a label claim for a non-enveloped virus (e.g., norovirus, rotavirus, adenovirus, poliovirus) to disinfect environmental surfaces in rooms of patients with suspected or confirmed Ebola virus infection. Although there are no products with specific label claims against the Ebola virus, enveloped viruses such as Ebola are susceptible to a broad range of hospital disinfectants used to disinfect hard, non-porous surfaces. In contrast, non-enveloped viruses are more resistant to disinfectants. As a precaution, selection of a disinfectant product with a higher potency than what is normally required for an enveloped virus is being recommended at this time. EPA-registered hospital disinfectants with label claims against non-enveloped viruses (e.g., norovirus, rotavirus, adenovirus, poliovirus) are broadly antiviral and capable of inactivating both enveloped and non-enveloped viruses.

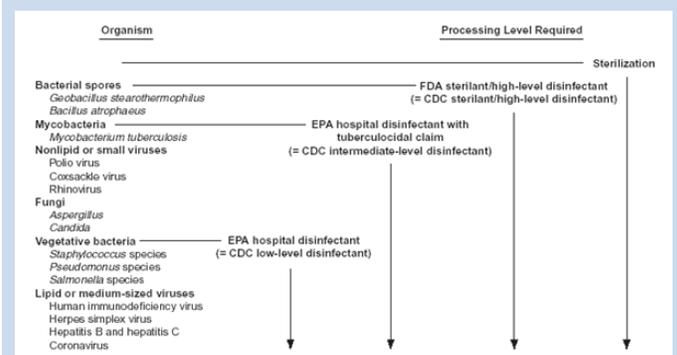
For more information visit the [CDC's Interim Guidance for Environmental Infection Control in Hospitals for Ebola Virus](#).

Actril® Cold Sterilant

Actril® Cold Sterilant is a sterilant that has been proven to deactivate both enveloped viruses and non-enveloped viruses. Since products have no specific label claims against the Ebola virus, the recommended suggestion is to select products with a higher potency that support inactivation of similar or more even resistant viruses as compared to common enveloped viruses.

Actril Cold Sterilant has been classified as a Sterilant by the EPA. This means Actril Cold Sterilant is capable of inactivating all microorganisms. Confirmatory checks by outside laboratories were performed on Actril Cold Sterilant showed that inactivation happens with mycobacteria, viruses, fungi and vegetative bacteria. Viral testing was performed on poliovirus, which is a non-enveloped member of the family Picornaviridae. According to the Decreasing order of resistance of microorganisms to germicidal chemicals chart in Regulatory Framework for Disinfectants and Sterilants, non-enveloped viruses are much harder for germicides to inactivate than enveloped viruses. Ebola virus is an enveloped virus from the family Filoviridae and is an easier challenge than poliovirus.

Figure: Decreasing order of resistance of microorganisms to germicidal chemicals



Source: Adapted from Bond WW, Ott BJ, Franke K, McCracken JE. Effective use of liquid chemical germicides on medical devices; instrument design problems. In: Block SS, ed. Disinfection, sterilization and preservation. 4th ed. Philadelphia, PA: Lea & Gebiger, 1991:110.

References

1. Interim Guidance for Environmental Infection Control in Hospitals for Ebola Virus. Centers for Disease Control and Prevention. August 2014.
2. W. Bond. Decreasing order of resistance of microorganisms to germicidal chemicals. Regulatory Framework for Disinfectants and Sterilants. 4th ed. Philadelphia, PA, 1991.