

July 2024

RE: Efficacy of Tristel products against Monkeypox virus (MPXV)

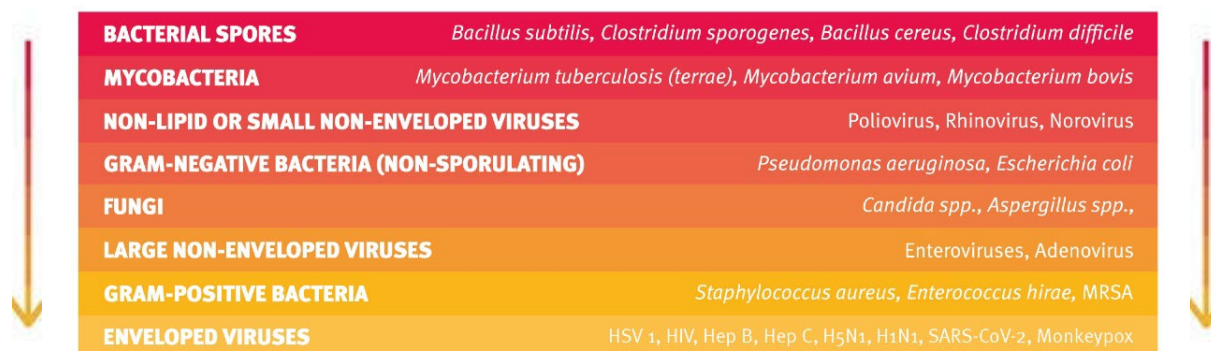
Monkeypox virus (MPXV) is categorised as an enveloped virus. These viruses are regarded as the least resistant group of microorganisms for disinfectants to inactivate. Vegetative bacteria, fungi, non-enveloped viruses, mycobacteria, and bacterial spores are all deemed more resistant to disinfectants (see Figure 1).

Virucidal Efficacy

To claim that a disinfectant is virucidal, testing must be performed according to the **EN 14476**.

This test method utilises three highly resistant non-enveloped viruses: Poliovirus type 1, Adenovirus type 5 and Murine Norovirus. If efficacy is demonstrated against all three viruses, the disinfectant is deemed virucidal against all viral species (non-enveloped and enveloped), including MPXV.

Most Resistant to Disinfectants



BACTERIAL SPORES	<i>Bacillus subtilis, Clostridium sporogenes, Bacillus cereus, Clostridium difficile</i>
MYCOBACTERIA	<i>Mycobacterium tuberculosis (terrae), Mycobacterium avium, Mycobacterium bovis</i>
NON-LIPID OR SMALL NON-ENVELOPED VIRUSES	Poliovirus, Rhinovirus, Norovirus
GRAM-NEGATIVE BACTERIA (NON-SPORULATING)	<i>Pseudomonas aeruginosa, Escherichia coli</i>
FUNGI	<i>Candida spp., Aspergillus spp.,</i>
LARGE NON-ENVELOPED VIRUSES	Enteroviruses, Adenovirus
GRAM-POSITIVE BACTERIA	<i>Staphylococcus aureus, Enterococcus hirae, MRSA</i>
ENVELOPED VIRUSES	HSV 1, HIV, Hep B, Hep C, H5N1, H1N1, SARS-CoV-2, Monkeypox

Least Resistant to Disinfectants

Figure 1. Resistance of Microorganisms to Disinfectants. Adapted from Centers for Disease Control and Prevention (2008).

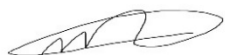
The following Tristel chlorine dioxide products in Table 1 & 2 have been tested in accordance with EN 14476 and meet the acceptance criteria for full virucidal activity.

Table 1 & 2. Virucidal Tristel chlorine dioxide products

Tristel Portfolio	Contact Time	Cache Collection	Contact Time
Tristel Sporicidal Wipes (Tristel Trio Wipes System)	30 seconds	JET	1 minute
Tristel Duo range	30 seconds	JET LUX	1 minute
Tristel Fuse for Stella	5 minutes	JET PRO	1 minute
Tristel Fuse for Surfaces	5 minutes	FUSE	5 minutes
Tristel Fuse for Medical Surfaces	5 minutes	TANK CIO2 Sporicidal Disinfectant	5 minutes

If you require any additional information, do not hesitate to contact your local Tristel representative.

Sincerely,
Michael Duncan



Study Manager
Validation and Development
Tristel Solutions Ltd.