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Important Customer Notice – Tristel Chlorine Dioxide Efficacy against Viruses, including Coronaviruses

The Coronavirus disease (COVID-19) was declared by the World Health Organization (WHO) as a global pandemic on 11 March 2020<sup>1</sup>. Cases have been reported in the continent of Africa, Asia, America, Europe and Oceania<sup>2</sup>. Symptoms of disease appear 2-14 days after exposure (based on the incubation period of MERS-CoV viruses) and include fever, cough and shortness of breath<sup>3</sup>.

The survival of SARS-CoV-2 on surfaces acting as a vector for nosocomial transmission within the healthcare environment is currently being studied. New data published in the New England Journal of Medicine reveals the virus remains stable and infectious within the air for three hours<sup>4</sup>.

## SARS-CoV-2 Resistance to Disinfectants

SARS-CoV-2 is categorised as an enveloped virus. These viruses are regarded by scientists 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 for disinfectants to inactivate compared to enveloped viruses such as SARS-CoV-2 (Figure 1).

High-level disinfectants inactivate all of the above mentioned microorganisms.

## High-Level Disinfectant Efficacy

Tristel chlorine dioxide products are high-level disinfectants and provide efficacy against enveloped viruses, vegetative bacteria, fungi, non-enveloped viruses, mycobacteria and bacterial spores.

Testing has been performed in accordance with the latest European regulatory requirements and EN 14885:2018.

MOST RESISTANT TO DISINFECTANTS	BACTERIAL SPORES	Bacillus subtilis, Clostridium difficile
	MYCOBACTERIA	Mycobacterium tuberculosis
	NON-ENVELOPED VIRUSES	Poliovirus, Norovirus, Human Papillomavirus (HPV)
	FUNGI	Candida spp., Aspergillus spp.,
	VEGETATIVE BACTERIA	Pseudomonas aeruginosa
	ENVELOPED VIRUSES	Coronavirus

**Figure 1**. Resistance of Microorganisms to Disinfectants. Adapted from Centers for Disease Control and Prevention (2008)<sup>5</sup>

<sup>&</sup>lt;sup>1</sup> World Health Organization (2020) 'Rolling updates on coronavirus disease (COVID-19)' Available at: <u>https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen</u> Accessed 24 March 2020

Accessed 24 March 2020 Studies and Control (2020) 'Situation update worldwide, as of 24 March 2020' Available at: <a href="https://www.ecdc.europa.eu/en/geographical-distribution-2019-ncov-cases">https://www.ecdc.europa.eu/en/geographical-distribution-2019-ncov-cases</a> Accessed 24 March 2020

Accessed 24 Match 2020 <sup>3</sup> Centers for Disease Control and Prevention (2020) 'Coronavirus Disease 2019 (COVID-19) Available at: https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html Accessed 24 March 2020 <sup>4</sup> Doremalen et al., (2020) 'Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1, *The New England Journal of Medicine* Available at: https://www.nejm.org/doi/full/10.1056/NEJMc200a973

Accessed 2,4 March 2020 <sup>5</sup> Centers for Disease Control and Prevention (2008) Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008 Available at: https://www.cdc.gov/infectioncontrol/pdf/guidelines/disinfectionguidelines/H.pdf Accessed 2,4 March 2020