

## Microbiological Summary

---

Our biguanide-based products, for instance the **Wipe for Surfaces** and the **SOLO for Ultrasound** show an excellent intermediate level efficacy, including viruses and bacteria.

Validation tests performed include:

Test authority	Standard	Organisms
Bluscientific, UK		SARS virus ( <i>Feline Coronavirus</i> )

Conclusion

*'Feline coronavirus (FCoV) was exposed to bulk wipe solution at concentrations of 2%, 5% and 80% v/v for 30 seconds, 1 minute and 5 minutes at 20°C with a soil load of 0.6 g/l (as protein). The virus showed a mean virus recovery of  $7.3 \times 10^5$  following treatment with sterile distilled water for 5 minutes. The best result was obtained at a 5% v/v concentration, where a  $> 3.0$  log reduction in viral infectivity was determined for all contact times (viral infectivity was reduced to below the level of sensitivity of the assay). A 2% v/v concentration of agent was marginally effective achieving a 1.4 log reduction in viability after 5 minutes contact. The 80% v/v concentration of agent resulted in an insensitive assay result because of high residual cytotoxicity of the agent. The result at a 5% v/v concentration of agent indicates that the working concentration of this agent (neat) would be expected to effectively reduce the infectivity of SARS virus within 30 seconds of contact.'*

Test authority	Standard	Organisms
Bluscientific, UK		Human Norovirus ( <i>Feline calicivirus</i> )

Conclusion

*'Feline calicivirus (FCV) was exposed to bulk wipe solution at concentrations of 2%, 5% and 80% v/v for 30 seconds, 1 minute and 5 minutes at 20°C with a soil load of 0.6 g/l (as protein). The virus showed a mean virus recovery of  $4.9 \times 10^7$  following treatment with sterile distilled water for 5 minutes. Reduction in virus viability was only observed at a concentration of 80% v/v agent and this was observed to be between 3.6 and  $> 3.8$  logs for contact times between 30 seconds and 5 minutes. This indicates that the working concentration (neat) of this agent would effectively reduce human norovirus infectivity within 30 seconds of contact.'*

---

## Microbiological and Health & Safety Information

---

Test authority	Standard	Organisms
Abbott Analytical	EN 13624	<i>Candida Albicans</i>
	<i>'According to EN 13624 this batch of Tristel Solo Foam when used neat as received possesses satisfactory yeasticidal activity in 30 seconds at 20°C for the reference organism detailed.'</i>	
Abbott Analytical	EN 13727	<i>Pseudomonas aeruginosa,</i> <i>Staphylococcus aureus,</i> <i>Enterococcus hirae</i>
	<i>'According to EN 13727 this batch of Tristel Solo Foam when used neat as received possesses satisfactory bactericidal activity in 30 seconds at 20°C for the reference organism detailed.'</i>	
Dr. David Coates	EN 1276	<i>Acinetobacter baumannii</i>
Conclusions	<i>'A Tristel DUO wipe wetted with 8ml of bulk wipe solution apparently achieved a 100% kill of vegetative cells of Acinetobacter baumannii (approximately 10<sup>8</sup>) dried out on the 12 inch square stainless steel test surface (wipe time used: 30 seconds). However, tests were not done on the neutralizer employed so firm conclusions cannot be drawn.'</i>	
Dr. David Coates	EN 1276	<i>Escherichia coli</i>
Conclusions	<i>'A Tristel DUO wipe wetted with 8ml of bulk wipe solution apparently achieved a 100% kill of vegetative cells of Escherichia coli (approximately 10<sup>8</sup>) dried out on the 12 inch square stainless steel test surface (wipe time used: 30 seconds). However, tests were not done on the neutralizer employed so firm conclusions cannot be drawn.'</i>	
Dr. David Coates	EN 1276	<i>Clostridium difficile</i>
Conclusions	<i>'A Tristel DUO wipe wetted with 8ml of bulk wipe solution apparently achieved a 100% kill of vegetative cells of Clostridium difficile (1.1 x 10<sup>8</sup>) dried out on the 12 inch square stainless steel test surface (wipe time used: 30 seconds). However, tests were not done on the neutralizer employed so firm conclusions cannot be drawn. The culture of Clostridium difficile may have contained spores as well as vegetative cells but this possibility was not investigated.'</i>	