Study Title:
Measurement of antiviral activity on plastics and other non-porous surfaces

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Scope

The standard describes the method for measuring antiviral activity on plastics and other non-porous surfaces of antiviral-treated products against specified viruses.

Outline of Test Method (Obligatory Test Conditions)

A test suspension of is inoculated onto a test plastic surface and covered with a cover film. The surface is maintained at a specified temperature for a defined period. At the end of the contact time media is added to the surface of the plastic, and the surface is washed over to recover any remaining organism. The number of surviving organisms which can be recovered from the surface is determined quantitatively taking in to account the test surface size.

Test information		Deviation
Name of Product	Antimicrobial Surface Coating	
Batch Number & Expiry Date	N/S	
Date of Delivery	N/S	
Period of Analysis	25/06/2020	
Manufacturer / Supplier	HydroSilex Europe AB	
Storage Conditions	Ambient	
Appearance of the Product	Clear liquid	
Neutralisation Method	Dilution	
Product Diluent	Distilled water	
Test Concentrations	1/5	
Test Temperature	20°C ± 1°C	
Temperature of Incubation	37°C ±1°C	
Identification of the Viral Strains:	Influenza H1N1 ATCC VR-1683	
Contact Times	2 hours	
Stability and Appearance During Test	No Change Observed	

Deviations from Standard Method

Product was applied to the surface of a glass slide prior to testing and allowed to dry, a plain glass slide was used as a control.

Test Result Summary

The test product received has achieved a 1.03 log (91.09%) reduction when tested under the condition stipulated in this report.

See page 2 for acceptance criteria and raw data tables below for complete test results.

Test results

Inactivation control				
	Log recovered		Difference	Valid
Test	*St*	4.21	0.17	Y
Control (Untreated)	*Su*	4.33	0.04	Y
Negative control	*Sn*	4.38	N/A	Y

Cytotoxicity (Test)	Negative
Cytotoxicty (Control)	Negative

Log recovery						
	1	**2**	**3**	**Average**	**Log recovered per surface**	
Test Neat	4.04	4.08	4.00	4.04	*At*	6.04
Control *(t)*	5.21	4.75	5.25	5.07	*Ut*	7.07
Control *(0)*	5.54	5.50	5.58	5.54	*Uo*	7.54

Antiviral activity per surface *(R)*
1.03
R=(Ut-Uo)-(At-Uo)

KEY

CPE	Cytopathic effect
Counts	0-4 indicating degree of cytopathic effect 0 = No effect, 1 = 25% CPE, 2 = 50% CPE, 3 = 75% CPE, 4 = 100% CPE
d	Dilution factor (log)
Sum px	Sum of % CPE from the highest dilution showing 100% CPE to the lowest dilution assessed.
n	Number of dilutions
SD50	Dilution showing 50% of the end point according to Spearman-Kärber method
SE	Standard error
xp	Lowest dilution showing 100% CPE
TCID50	Titre causing 50% of the end point according to Spearman-Kärber

Calculation notes
All recovery and log reduction calculations were performed for TCID50 rather than plaque assays. Cytotoxicity of the test product was performed through adding 10ml of culture media and washing the surface, this solution was then added to cells in serial dilution and cytotoxicity calculated by TCID50.