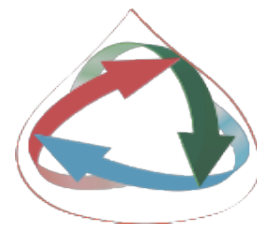


EXAMINATION AND ANALYSIS REPORT

Report Type: Special Request Details of the Firm sending sample;	Report No :20042016 Reporting Date :25.05.2020
Firm Name : Medisanitize Address : Buckshaw Link, Ordnance Rd, Buckshaw Village, Chorley PR7 7EL Contact Detail: 01772 347771	Sample; Name : Medisanitize Universal Wipes Active content of the sample : BENZYL-C8-18-ALKYLDIMETHYL CHLORIDES, DIDECYCLDIMETHYL AMMONIUM CHLORIDE, POLYHEXAMETHYLENE BIGUANIDE HYDROCHLORIDE Arrival Date :20.04.2020 Starting Date :20.04.2020 Ending Date :12.05.202

RESULT

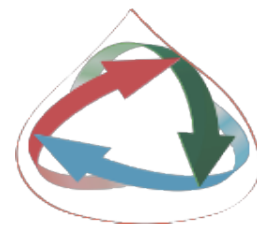
The result of the analysis made on the sample of Medisanitize Universal Wipes sent by you are presented below for your information.



ANALYSIS RESULTS

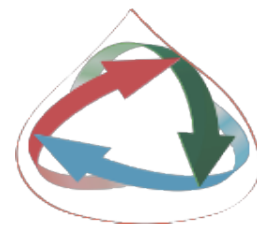
2.1 ANTIVIRAL ACTIVITY TRIAL METHOD APPLICATION DETAILS

Virus and strain tested	Trial Method	Starting and Ending Date of Trial	Features of Virus and Strain	Dose of application	Contact Form	Waiting Time	Clean ambient conditions of trial	Dirty ambient conditions of trial	Cell Culture and Dilution Buffer
Virucidal analysis of disinfectants -Poliovirus Type 1	TS EN 14476	20.04.2020 12.05.2020	ATCC 's reference strain with VR-192 code	Direct 1/1	Liquid Mixture	1 min	Environment including BSA (20°C)	Environment including BSA and Sheep erythrocyte (20°C)	Hep-2 cell culture (ATCC CCL-23) MEM, PBS ,Hard water
Virucidal analysis of disinfectants -Human Adenovirus Type 5	TS EN 14476	20.04.2020 12.05.2020	ATCC's reference strain with VR-5 code	Direct 1/1	Liquid Mixture	1 min	Environment including BSA (20°C)	Environment including BSA and Sheep erythrocyte (20°C)	Hep-2 cell culture (ATCC CCL-23) MEM, PBS ,Hard water
Virucidal analysis of disinfectants -Murine norovirus	TS EN 14476	20.04.2020 12.05.2020	ATCC's reference strain with PTA-5935 code	Direct 1/1	Liquid Mixture	1 min	Environment including BSA (20°C)	Environment including BSA and Sheep erythrocyte (20°C)	Hep-2 cell culture (ATCC TIB 71) MEM, PBS ,Hard water



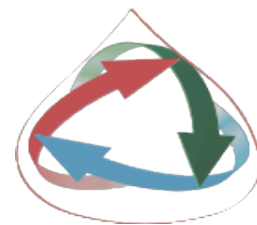
2.2. TRIAL RESULTS AND EVALUATION TABLE

Virus Name	Usage Area of Product	Reference virus titer ⁽¹⁾	Disinfectant virus titer ⁽²⁾		Rate of reduction in virus titer ⁽³⁾		Method of Effect Assessment	D
			Clean Environment	Dirty Environment	Clean Environment	Dirty Environment		
Virucidal analysis of disinfectant s-Poliovirus Type 1	Public and Usage Area	5.0	1.0	1.0	4.0	4.0	Instruction on Biocidal Product Analysis TS EN 14476	U
Virucidal analysis of disinfectants -Human Adenovirus Type 5	Public and Usage Area	5.0	1.0	1.0	4.0	4.0	Instruction on Biocidal Product Analysis TS EN 14476	U
Virucidal analysis of disinfectants -Murine norovirus	Public and Usage Area	5.0	1.0	1.0	4.0	4.0	Instruction on Biocidal Product Analysis TS EN 14476	U



2.3 ANTIVIRAL ACTIVITY TRIAL METHOD DETAILS

PARAMETER OF TRIAL	METHOD / TECHNIQUE	SUMMARY OF METHOD
Virucidal analysis of disinfectants-Poliovirus Type 1	Cell Culture – Sperman Karber Method	The non-toxic concentration of the samples in liquid form is determined in the cell culture. After inoculation of reference viruses with cells, a non-toxic sample is tested. Compared with virus controls, It is compared with virus controls and virus titer is calculated according to the Sperman-carber method.
Virucidal analysis of disinfectants-Human Adenovirus Type 5	Cell Culture – Sperman Karber Method	The non-toxic concentration of the samples in liquid form is determined in the cell culture. After inoculation of reference viruses with cells, a non-toxic sample is tested. Compared with virus controls, It is compared with virus controls and virus titer is calculated according to the Sperman-carber method.
Virucidal analysis of disinfectants-Murine norovirus	Cell Culture – Sperman Karber Method	The non-toxic concentration of the samples in liquid form is determined in the cell culture. After inoculation of reference viruses with cells, a non-toxic sample is tested. Compared with virus controls, It is compared with virus controls and virus titer is calculated according to the Sperman-carber method.
REMARK / EXPRESSION	<p>Different suspensions of the tested product of Medisanitize Universal Wipes were first tested for cytopathic effect and the lowest rate of the aforementioned disinfectant solution without cytopathic effect was 0.1% because 1/1, 10% and 1% suspensions of the product show cytopathic effects on cells in cell culture. When the product of BIOFLEX ANTIBACTERIAL WET WIPES SOLUTION was used at a ratio of 1/1 (directly without solution), it was determined in the calculations made at the end of test that it leads to at least 4 log decrease in the virus titer in all experimental conditions (see result table) as a result of 1 minute application time at room temperature (20 °C) under clean and dirty conditions.</p> <p>According to TS EN 14476;2014-02, TS EN 14675 and OECD ENV/JM/MONO(2012)15 standards and the Regulations on Biocidal, virus titer should be reduced to 4 log (3 log for pool water) or much more for virucidal activities of disinfectants with product types 1,2,3 and 4.</p> <p>As a result, when Medisanitize Universal Wipes is used at a ratio of 1/1 (directly without dilution), results of the experiment suggest that it is effective at a ratio of 99.99% against Poliovirus Type 1 virus, Human Adenovirus Type 5 virus and Murine Norovirus at room temperature (20 °C) for 1 min application time.</p>	



GENERAL EVALUATION: As a result of the examination and analyzes carried out, the values stated above have been determined.

****Suitability status ; U:Suitable , DU:Unsuitable , DY:No evaluation was made because there is no limit value D:Evaluation**

The results of the analysis are valid for the sample mentioned above. This report cannot be reproduced, published and used for advertising purposes without the permission of Al-BioServices. Reports without wet-ink signature are invalid. Any part of the report cannot be used alone or separately.

Abbreviations: (1) Logarithmic TCID₅₀ value of the virus in ml

(2) Logarithmic TCID₅₀ value of the virus treated with disinfectant in different time and environments

(3) Logarithmic TCID₅₀ ratio between virus titer and disinfectant virus titer

END OF THE REPORT