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Werner & Mertz GmbH Rheinallee 96 55120 Mainz

Bremen, 05/12/2016

Summary: Virus-inactivating properties of APESIN AP 100 Plus of Werner & Mertz GmbH according to EN 14476

This updated summary is based on the following test reports of Dr. Brill + Partner GmbH for the surface disinfectant APESIN AP 100 Plus according to EN14476:2007-02 produced by Werner & Mertz GmbH:

adenovirus test report S08ML663A dating 26/09/2008 MNV test report S08ML600M dating 28/04/2008 poliovirus test report S08ML663Po dating 10/10/2008

The following concentration and exposure time are necessary for the inactivation of the three test viruses:

1.0 % 5 minutes

in order to achieve a 4 \log_{10} reduction (inactivation \geq 99.99 %) under clean conditions in a quantitative suspension test according to EN 14476:2013+A1:2015.

After evaluation with poliovirus type 1, adenovirus type 5 and MNV the surface disinfectant APESIN AP 100 Plus can be declared as having "virucidal activity". The named test reports still fulfill the requirements for "virucidal activity" in accordance to EN 14476:2013+A1:2015, which represents the currently valid test standard.

Therefore, after successful experiments with the three above mentioned non-enveloped viruses the test product is also effective against the so-called blood-borne viruses including HBV, HCV and HIV as well as against members of other virus families such as orthomyxoviridae (incl. all human and animal influenza viruses like H5N1 and H1N1), coronaviridae (MERS-CoV) and filoviridae including Ebola virus (see list at the end).

Dr. Jochen Steinmann



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Bremen, 05/12/2016

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(Transcription of the updated summary for perform, company Schülke & Mayr GmbH dated 05/12/2016, carried out at 17/01/2017)

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From Annex B in EN 14476:2013 Examples of viruses which may contaminate human medical instruments, hands, surfaces (*Enveloped viruses are in bold*)

NOTE

This list is not exhaustive.

Blood

Enterovirus
Filoviridae
Flavivirus
Herpesviridae
Hepatitis A Virus (HAV)
Hepatitis B virus (HBV)

Hepatitis C virus (HCV) Hepatitis Delta virus (HDV)

Human Immunodeficiency Virus (HIV) Human T Cell Leukemia Virus (HTLV)

Parvovirus B 19

Respiratory tract

Adenovirus (Mast-) Coronavirus Enterovirus Herpesviridae

Influenza Virus Paramyxoviridae Rhinovirus Rubella Virus

Neural tissue, ear & nose, eye

Adenovirus (Mast-) Enterovirus Herpesviridae Measles Virus

Human Immunodeficiency Virus (HIV)

Polyomavirus Rabies Virus Rubella Virus

Gastro-intestinal

Adenovirus (Mast-) Caliciviridae **Coronavirus** Astrovirus

Enterovirus

Hepatitis A Virus (HAV) Hepatitis E Virus (HEV)

Rotavirus

Skin, breast and/or milk

Enterovirus Herpesviridae

Human Immunodeficiency Virus (HIV)

Human T Cell Leukemia Virus (HTLV)

Papillomavirus Poxviridae

Spleen and lymph nodes (see also "Blood")

Human T Cell Leukemia Virus (HTLV) Human Immunodeficiency Virus (HIV)

Dental procedure

Adenovirus (Mast-) Enterovirus **Herpesviridae**

Hepatitis C Virus (HCV) Hepatitis Delta Virus (HDV)

Human Immunodeficiency Virus (HIV)

Hepatitis B virus (HBV)

Urogenital tract

Hepatitis B Virus (HBV) Herpesviridae Human Immunodeficiency Virus (HIV)

Human T Cell Leukemia Virus (HTLV) Papillomavirus Polyomavirus

Reference:

Van Regenmortel MHV et al., Eds.: Virus Taxonomy, Classification and Nomenclature of Viruses, seventh report of the international committee on taxonomy of viruses.

Academic Press, San Diego, 2000