Nouryon

Biocides Information sheet

Virucidal Efficacy

Triameen Y12D, Arquad MCB, Arquad 2.10

Viruses are small infectious agents replicating only inside of living cells of their hosts. They can infect all types of life forms like humans, animals, plants and microorganisms. Usually they have a narrow host range.
There are 2 main groups based on their structure: enveloped and non-enveloped viruses. Enveloped viruses have a lipid envelope which is relatively sensitive to desiccation, heat and detergents. They are easier to be inactivated by biocidal active substances than non-enveloped viruses.

Examples for enveloped viruses are listed below:
- Herpesviruses (e.g. Epstein-Barr virus, Herpes simplex, Bovine alphaherpesvirus 1 (causing Bovine Rhinotracheitis), suid herpesvirus 1 (causing pseudorabies=Aujeszky's disease))
- Poxviruses (e.g. smallpox, vaccinia virus)
- Hepadnaviruses (e.g. Hepatitis B virus)
- Asfarviridae (e.g. African Swine fewer)
- Flavivirus (e.g. Hepatitis C, yellow fever virus, Zika virus, dengue virus)
- Alphavirus (e.g. eastern equine encephalitis virus)
- Togavirus (e.g. Alphavirus)
- Coronavirus (e.g. MERS-CoV, SARS-CoV-1, SARS-CoV-2)
- Hepatitis D virus
- Orthomyxovirus (e.g. Influenza virus A (H1N1-swine flu, H3N2-Hong Kong flu, H9N2-avain influenza, H3N8, H5N1, H5N2…), Influenza virus B, Influenza virus C, Influenza virus D)
- Paramyxovirus (e.g. mumps virus, human parainfluenza virus, measles virus, canine distemper virus, rinderpest virus)
- Rhabdovirus (e.g. rabies virus)
- Rubella virus
- Bunyavirus (e.g. Hantavirus, California encephalitis virus, Congo hemorrharic fever virus)
- Filovirus (e.g. Ebola virus, Marburg virus)
- Retrovirus (e.g. Human Immunodeficiency Virus (HIV), Human T Cell Leukemia Virus (HTLV), Mouse mammary tumor virus)
- Arteriviridae (e.g. Porcine Respiratory and Reproductive Syndrome Virus (PRRSV))

The biocidal active substances in our products below are effective against enveloped viruses

- Triameen Y12D, Triameen Y12D-30
  (N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine - CAS No.: 2372-82-9)
- Arquad MCB-50, Arquad MCB-80
  (BKC = C12-16-alkyldimethylbenzylammonium chloride - CAS number 68424-85-1)
- Arquad 2.10-50, Arquad 2.10-70 HFP, Arquad 2.10-80
  (DDAC = Didecyldimethylammonium chloride - CAS number 7173-51-5)

Own test data according to EN 14476, clean conditions are available for

- Modified vaccinia virus Ankara (MVA) being the obligatory test organism to proof efficacy versus enveloped viruses
- Bovine corona virus (BCoV) being regarded as surrogate of members of coronaviridae family including MERS-CoV, SARS-CoV-1 and SARS-CoV-2
- Influenza virus H1N1

Details can be received on request.

Customer formulations containing our products will still have to be tested according to national regulations. In case a (biocides) registration scheme is in place customer products might need (national) approval before being placed on the market.

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