

Association of Applied Hygiene (VAH)  
Disinfectants Commission



## Quality assurance of statements on the virucidal activity of disinfectants: VAH publishes revised requirements for certification of virucidal disinfectants in the VAH List

As of 1 November 2021

The COVID-19 pandemic has spectacularly demonstrated how important independent quality assurance is for disinfectants. That is as true for the healthcare sector as it is for public institutions and private households.

The virucidal efficacy of disinfectants must meet the same high standards as the bactericidal and yeasticidal (i.e. efficacy against yeasts such as *Candida* spp.). The bactericidal and yeasticidal activity spectrums are considered minimum requirements for certification of disinfectants by the VAH. Accordingly, the concentration-contact time relations specified for these two activity spectrums in the VAH List must also always be seen as the basis for every application.

Since 2015 – the year the revised *Requirements and Methods for VAH Certification* was published [1] – the range of methods has been expanded and expressed in more precise terms at national and European level. Therefore, the Disinfectants Commission at the VAH, in collaboration with members of the Disinfectants Commission at the DVV/GfV<sup>1</sup>, is currently completely revising the requirements and methods for VAH certification [1]. All changes made since 2015 to the VAH methods and requirements as well as new developments and updates of the relevant EN standards will be taken into account.

**Henceforth, the methods and requirements will be made available free of charge as a living document on the VAH website, while indicating the status of each document.**

One of the key tasks currently undertaken by the Disinfectants Commission is certification and listing of virucidal products. Therefore, the first task when revising the Methods Book was to supplement and express more precisely Annex V (dealing with virucidal efficacy). Testing and evaluation of the virucidal activity of disinfectants is a major challenge for the test laboratories because viruses – unlike bacteria and yeasts – can only grow and be detected on cell cultures as an additional biological system. Testing of the virucidal activity thus calls for increased effort investment and specific experience. The development of the corresponding test procedures under simulated-use conditions is therefore not yet complete in certain areas (see Table 2.1 in Chapter 2 of the revised Methods Book).

With the publication of the revised and supplementary requirements and methods for certification of the virucidal efficacy in the VAH List, the quality assurance for VAH-listed products will be further enhanced. This means that in all cases two independent expert opinions, including test reports, will have to be submitted as has been the case also for bactericidal and yeasticidal activity. Furthermore, ring trials confirm that the deviations between the individual test laboratories are generally too large

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<sup>1</sup> DVV: German Association for the Control of Viral Diseases, GfV: German Virology Society

due to the biological variance, so that an evaluation on the basis of only one test report with expert opinion does not provide adequate safety. The laboratories approved by the VAH must in future confirm on a regular basis the quality of their results in ring trials.

The requirements for testing in the laboratories have been expressed in more specific terms to improve standardized implementation as well as to make it easier to compile test reports and carry out conformity assessment. For the surface disinfection and instrument disinfection fields of application, tests under simulated-use conditions are available in the meantime and now include a high degree of safety as regards disinfection effectiveness as a prerequisite for a VAH certificate.

The following spectrums of virucidal activity can be requested for the respective fields of application once the specified test conditions have been met:

- **Hygienic hand disinfection: virucidal activity against enveloped viruses, limited spectrum virucidal activity** (i.e., enveloped viruses and additionally Adenovirus, Norovirus, Rotavirus), **virucidal activity**. Quantitative suspension test as per DVV or DIN EN 14476. There is also the option to submit a simulated-use test based on the current draft standard prEN 17430.
- **Surface disinfection: virucidal activity against enveloped viruses, limited spectrum virucidal activity, (full) virucidal activity**. To date, only one simulated-use test has been published for surface disinfection: surface disinfection *without* mechanical action [DVV 2012, DIN EN 16777]. For this reason, methods *with* mechanical action are still being tested as an interim solution for their suitability with this simulated-use test. Currently, the VAH in collaboration DVV/GfV, is developing a 4-field test for establishing virucidal activity for the application with mechanical action, i.e. with wiping.
- **Instrument disinfection (as immersion disinfection): virucidal activity against enveloped viruses, virucidal activity**. Quantitative suspension test and simulated-use test as per DVV 2014 or DIN EN 14476 and DIN EN 17111. For virucidal activity certification of automated disinfection processes at temperatures above 40 °C is also possible.
- **Textile disinfection: virucidal activity**. Quantitative suspension test as per DIN EN 14476, temperatures between 30 and 70 °C. Testing as per VAH Method 17 or DIN EN 16616 with *E. faecium* is currently available as a simulated-use test.

To that effect, the following chapters of the Methods Book with status as of 1 November 2021 have been updated and supplemented and are available in German and in English as PDF documents on the VAH website at <https://vah-online.de/en/for-laboratories>

#### **Chapters 1 to 4: Introduction**

- Chapter 1 Preliminary remarks
- Chapter 2 Principles of disinfectant testing
- Chapter 3 Assessment procedure for VAH certification
- Chapter 4 Efficacy testing against specific pathogens

#### **Annex V: Requirements for certification of virucidal procedures**

- V1A Hygienic hand disinfection
- V2A Surface disinfection
- V3A Instrument disinfection (as immersion disinfection)
- V4A Chemo-thermal textile disinfection (laundry disinfection)

These requirements apply for **all new applications for virucidal activity from 1 January 2022**. Rules for products already listed are being currently drawn up and all certificate holders will be informed about these.

**From 1 July 2022**, the VAH List should only feature information on the virucidal activity that meets the current, high quality requirements of 1 November 2021.

The VAH urgently appeals to all manufacturers to apply for VAH certification also of the virucidal activity of their products so as to confirm the effectiveness of the disinfectants now used on a large scale during the COVID-19 pandemic.

Disinfectant purchasers and users are guided by VAH certification. The quality seal **“VAH certified”** (e.g. bactericidal, yeasticidal, activity against enveloped viruses) quickly and clearly tells purchasers and users that the product meets these stringent requirements.

The VAH certification awarded for bactericidal and yeasticidal activity/efficacy cannot be extrapolated to other activity spectrums. Each activity spectrum is individually tested. For the disinfectant manufacturers certification by the VAH is an important guarantor of the highest quality.

With these measures, the VAH continues to ensure the high quality of chemical disinfection procedures certified and listed by the Disinfectants Commission and thus remains committed to its principle of public health protection.

## References

1. Desinfektionsmittel-Kommission im VAH (ed.). Requirements and Methods for VAH Certification of Chemical Disinfection Procedures. 2<sup>nd</sup> April 2015; Wiesbaden: mhp Verlag. Available from [https://vah-online.de/files/download/ebooks/eBook\\_VAH\\_RequirementsandMethods.pdf](https://vah-online.de/files/download/ebooks/eBook_VAH_RequirementsandMethods.pdf)

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Cite as:

Desinfektionsmittel-Kommission im VAH (ed). Quality assurance of statements on the virucidal activity of disinfectants: VAH publishes revised requirements for certification of virucidal disinfectants in the VAH List. 1 November 2021. Available from <https://vah-online.de/en/expertise>

Authorized translation of the original publication in German: Qualitätssicherung der Aussagen zur Viruswirksamkeit von Desinfektionsmitteln: VAH präzisiert Anforderungen an die Viruswirksamkeit in der VAH-Liste.. HygMed 2021;46(11):243-244. Available from [https://vah-online.de/files/download/vah-mitteilungen/VAH%20Anforderungen\\_Viruswirksamkeit\\_HM\\_11\\_21.pdf](https://vah-online.de/files/download/vah-mitteilungen/VAH%20Anforderungen_Viruswirksamkeit_HM_11_21.pdf)

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