

Update of the communication
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Chlorine-based surface disinfectants: Specified and amended requirements for VAH certification



As of 26th May 2021

Increasingly more applications are currently being submitted to VAH for certification of products whose principle active substances are **chlorine-releasing compounds**. The VAH explicitly draws attention to **special features of the production of these compounds through electrodiaphragmalysis**. For example, there may be widespread variability in the pH values of the active substance solutions generated depending on the diaphragmalysis method used, with consequently a major impact on the efficacy as well as on corrosiveness. Furthermore, the active substances generated are subjected to different disintegration processes which also affect the usability of the active substance solutions.

With reference to ECHA regulations, the Disinfectants Commission of the German Association for Applied Hygiene (VAH) has decided to certify only processes which already contain active chlorine (**ex situ**) [1, 2]. Processes that generate active chlorine on site (in situ) are currently not certified. In the VAH Disinfectants List, the user will therefore only find ex-situ active chlorine solutions. Here, depending on the pH value, a distinction is made between the active substance designation "Active chlorine produced from sodium hypochlorite" for solutions pH > 7.5 and "Active chlorine released from hypochlorous acid" for solutions pH < 7.5. In the VAH certificate, the content of active chlorine in mg/L and the pH value of the product are indicated in addition to the name of the active substance.

In its communication from Hygiene&Medizin 06/2020, the Disinfectants Commission in the VAH had decided [3] that for certifications of products based on chlorine-releasing compounds, in addition to the previously applicable requirements set out in the test report and expert opinion (as per VAH Method Book Chap. 3.2 [4]), the **total and free chlorine content (active chlorine) as well as the redox potential** of the tested product must be documented at least on the first and last test day of using the respective test sample and be specified in the test report. To determine the free chlorine and total chlorine, e.g. the **colorimetric method with N,N-diethyl-1,4-phenylenediamine according to DIN EN ISO 7393-2** can be used (if necessary, following pre-dilution with A. dest). **DIN 38404-C 6**, for example, can be used as the method for determining the redox potential.

¹ Desinfektionsmittel-Kommission im VAH. Chlorbasierte Desinfektionsmittel: Anforderungen an die Zertifizierung durch den VAH. HygMed 2020;45(6):107-108. Verfügbar online unter https://vah-online.de/files/download/vah-mitteilungen/Chlorbasierte_Desinfektionsmittel_107_108_VAH_HM_6_20.pdf; English translation available from: https://vah-online.de/files/download/vah-mitteilungen/VAH_Chlorine_Based_Disinfectants_2020_May.pdf

These data as well as the pH value of the tested product with the active substance designation described above must also be submitted for already certified products **including a microbiological benchmark test by December 31, 2021**. In the benchmark test, the concentration to be listed should be tested in the practical test with the most resistant test organism according to VAH method 14.1 ("Surface disinfection without mechanical action") or 14.2 ("4-field test") (1st run: 1 test area + WSH / 2nd run: 2 test areas + WSH) [4].

Moreover, the manufacturer must provide data to demonstrate the period of time during which the concentrate continues to contain the certified content of free chlorine (active chlorine) with daily sampling.

The **minimum free chlorine (active chlorine in Cl mg/L)** active substance content of the product as well as the utilization period during which this active substance content is guaranteed are listed in the **VAH Certificate**.

Note:

Chlorine-based hand disinfectants are currently only certified by VAH if a biocide or drug approval has been obtained for the product [5, 6].

References

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