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**Evaluation of the  
effectiveness of  
  
CHEMISEPT G  
  
against  
Polyomavirus SV 40**

Test method according to guideline of BGA and DVV

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## 6. Results

In parallel with the inactivation tests, cytotoxicity of CHEMISEPT G (80.0%) and formaldehyde (0.7%) was measured. The formaldehyde solution was toxic for the CV-1 cells in the 1:1000 dilutions. This corresponds to a  $\log_{10}CD_{50}/mL$  of 4.50 (Table 1).

Examinations showed that the hand disinfectant CHEMISEPT G had a  $\log_{10}CD_{50}/mL$  of 2.50 (cytotoxicity in the 1:10 dilution; Table 1).

These tests to measure cytotoxicity are imperative, because in this way the lower detection threshold for non-inactivated SV 40 is determined.

Results of inactivation tests are found in table 2. Formaldehyde (0.7%) reduced the SV 40 titre after 5 and 15 minutes by 0.13  $\log_{10}$  steps. After 30 and 60 minutes RF were 0.63 and 1.25 (Table 2).

The hand disinfectant CHEMISEPT G was examined undiluted. Due to the addition of virus suspension and interfering substances a test concentration of 80.0% resulted. Exposure times of the inactivation experiments were 3, 5, 15 and 20 minutes.

Testing CHEMISEPT G undiluted against SV 40, an efficacy was measured after an exposure time of five minutes in all assays without and with interfering substances (Table 2). The RF were  $\geq 5.13$  (assay without protein load),  $\geq 4.88$  (assay with BSA) and  $\geq 5.00$  (assay with FCS), respectively. These RF correspond to an inactivation of  $\geq 99.999\%$  (assay with BSA  $\geq 99.99\%$ ) indicating virus-inactivating properties of the test product.

Due to the lack of guidelines simulating practical conditions, results of this quantitative suspension test lead to the recommendation to use the hand disinfectant CHEMISEPT G for inactivation of SV 40 as follows:

undiluted

5 min

  
Dr. J. Steinmann