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Expert opinion

The testing of the virus-reducing properties of hot water high-pressure cleaners was carried out in a two-stage procedure. First, the process parameters were determined in a practical test at an outside temperature of 10 °C as follows: The HDS 6/14-4 C with the part number: 1.170-900.0 high-pressure cleaner was set to the highest possible level. (At the boiler outlet the temperature is about 98 °C and at the cleaning objects a temperature of 80-85 °C). The process water temperature on the surface was 79.8 °C 10 s after treatment and 73.3 °C after 3 min. Subsequently, a simulation study with different test viruses and high organic load (tripartite soil load according to OECD, simulates artificial secretion) was carried out in the laboratory using quantitative suspension tests without process chemistry. The expert opinion LI-EO-021-001 is based on the following test reports:

- LI-020-512 (Adenovirus Type 5 strain Adenoid 75)
- LI-020-513 (Murine Norovirus isolate S99)
- LI-020-514 (Modified vaccinia virus Ankara)
- LI-020-515 (Human Coronavirus 229E)

In summary, the hot water high-pressure cleaner reduces the test viruses of the efficacy level “active against enveloped viruses” after 1 minute and in the efficacy range “limited spectrum of virucidal activity” after 5 minutes. By analogy, the test result also applies to other device with the same design/process parameters and an equal or higher performance at the nozzle outlet, since all hot water pressure cleaners with a steam setting reach the same temperature parameters. Recommendation for the use of hot water high-pressure cleaners for surface disinfection with mechanical action:

Declaration	Interfering substance	Device setting	Contact time
Activity against enveloped viruses	Tripartite soil load according to OECD	highest possible level	1 min
Limited spectrum of Virucidal Activity	Tripartite soil load according to OECD	highest possible level	5 min


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