DVG-listing of disinfectants for Animal Husbandry
on the basis of tests in accordance with EN 14349 and EN 16437

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The “Committee for disinfection” of the German Veterinary Medical Society (DVG) has been working
decades for a standardized, harmonized, pragmatic efficacy testing of disinfectants and disinfection
procedures. Thereby, the Committee is also engaged in the development of European standards (EN
test standards) for efficacy testing of disinfectants in the field of animal husbandry since the beginning.

Therefore, DVG Committee for disinfection recognizes the EN-testing standards for disinfectants and
considers these as a prerequisite for the DVG-listing of chemical disinfectants.

When evaluating the test results for DVG-listing the following principles were applied:

- **Independence**: evaluation of disinfecting efficacy only through (from the manufacturer)
independent experts
- **Repeatability**: assessment by two independent experts and execution of at least two
independent test repetitions due the experts
- **validity**: review of the test results by independent experts of the DVG-Committee Disinfection
regarding i) compliance with the test methods, ii) plausibility of the individual test results and
iii) reasonableness of the recommended concentrations for the application of the disinfectant
- **practical relevance**: efficacy testing under realistic conditions (for example: surface pollution,
temperature) and with detection of the Minimum Inhibitory Concentration (MIC) for
application security under practical conditions and to avoid biocide resistance.

**DVG-Listing based on established EN phase 2 / stage 2 efficacy tests**

DVG-listing for animal husbandry based on reports (only in German or English language) according
to EN 14349 and EN 16437 is possible for:

- 60 min efficacy (if tested in addition also 30 and 120 min) at 10 °C
- Bactericidal activity

For additional areas (yeasticidal, fungicidal, virucidal, parasites effectiveness) efficacy testing on the
basis of the actual DVG test guidelines is required until the entry into force of EN-testing standards
based on the relevant carrier tests (porous surfaces).

**Requirements for DVG-listing based on EN test reports:**

1. **An independent** expert opinion in accordance with EN 1656, EN 1657 (by independent,
accredited experts or by DVG-approved experts, no tests of the manufacturer) and tests
according
   - EN 14349 (stainless steel carriers) for DVG-listing for preventive bactericidal
disinfection (DVG list column 4b)
EN 16437 (wooden carriers) for DVG-Listing for specific bactericidal disinfection (DVG list column 4a)

2. At least two independent replications of the carrier tests according to EN 14349 and EN 16437 with the most resistant test bacterium.

3. Determination of Minimum Inhibitory Concentration (MIC) according to DVG guidelines in two independent replications with all test organisms in the full test report. A DVG-listing below the MIC is not possible with respect to possible biocide resistances and co-induction and selection of antibiotic resistances. This test is also possible in addition to the full report by the original expert or by a DVG-recognized expert.

4. Detection of sensitivity of the most resistant test organism against the reference substance (in the carrier test according to EN 14349 and/or EN 16437 in two independent preparations).

5. Semi-quantitative suspension test according to DVG guidelines with the most resistant test microorganism from EN 14349 in two independent preparations. This test is also possible in addition to the full report by the original evaluator or by a DVG-recognized expert. This test is not necessary if at least three time-concentration combinations in the list-relevant time range of 30min, 60min and 120min were tested in two independent approaches in the tests according to EN 1656.

6. The listing values of the full report (=benchmark parameters or “Eckwerte”, defined by the Committee) shall be confirmed by a second DVG-approved expert with the following tests:
   - tests according to EN 14349 and/or EN 16437 or the DVG-carrier tests with the most resistant test microorganism in three independent approaches (also tests with reference substance)
   - Determination of MIC with the most resistant test microorganism in two independent approaches.