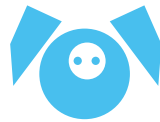


VENNO® VET 1

Disinfect your stables responsibly



The advantages of VENNO® VET 1

- DVG listed for the animal husbandry sector: non-enveloped and enveloped viruses, yeasts and bacteria
Status 05-2024
- MENNO recommendation at 4°C: Enveloped viruses 1,5% - 30 Min. / 1% - 60 Min. / 0,75% - 120 Min.
- MENNO recommendation at 10°C: Virucidal: Enveloped viruses 0,75% - 30 Min. Unenveloped viruses 1% - 120 Min.
- MENNO recommendation at 20°C: Virucidal: Enveloped viruses 0,25% - 30 Min. Unenveloped viruses 1% - 30 Min.
- MENNO recommendation for preventive disinfection: at 4°C: 1,5% - 60 Min. at 10°C: 1% - 120 Min. or at 20°C: 1% - 30 Min.
- **Effective even at low temperatures against ASF and much more.**
- Active ingredients: Formic acid
- „Environmentally friendly” because up to (86%) biodegradable

The advantages of VENNO® VET 1 super

- DVG listed for the animal husbandry sector: non-enveloped and enveloped viruses, yeasts and bacteria
Status 05-2024
- MENNO recommendation at 4°C: Enveloped viruses 1,5% - 30 Min. 1% - 60 Min. / 0,75% - 120 Min.
- MENNO recommendation at 10°C: Virucidal: Enveloped viruses 0,75% - 30 Min. Unenveloped viruses 1% - 120 Min.
- MENNO recommendation for preventive disinfection: at 4°C: 1,5% - 60 Min. at 10°C: 1% - 120 Min. or at 20°C: 0,75% - 30 Min.
- **Effective even at low temperatures against ASF and much more.**
- Active ingredients: Formic acid

Use disinfectants with caution. Always read the label and product information before use

MENNO CHEMIE-VERTRIEB GMBH

Langer Kamp 104 • D-22850 Norderstedt • Germany • T: +4940 52906670

F: +4940 529066766 • info@menno.de • www.menno.de

The advantages of VENNO® VET 1

Listed by the German Veterinary Medical Society in the disinfectant list for animal husbandry, www.dvg.net

Efficacy at 20°C: Status 05-2024

Virucidal: Unenveloped viruses 1%-30min;

Enveloped viruses 0,25%-30min;

Yeasts 4%-120min;

Bactericidal: Special disinfection 3,5%-120min.;

Preventive disinfection 0,5%-120min./0,75%-60min./1%-30min.;

Efficacy at 10°C:

Virucidal: Unenveloped viruses 1%-120min. / 2%-60min. / 2,5%-30min.;

Enveloped viruses 0,25%-120min / 0,5%-60min. / 0,75%-30min.;

Yeasts 5%-120min; Bactericidal: Special disinfection 5%-120min.;

Preventive disinfection 1%-120min. / 1,5%-30min.,

Efficacy at 4°C:

Virucidal: Unenveloped viruses 3,5%-120min./4%-60min./4,5%-30min.;

Enveloped viruses 0,75%-120min. / 1%-60min. / 1,5%-30min.;

Preventive disinfection 1,5%-60min. / 2%-30min.,

Efficacy at (minus) -10°C:

Virucidal: Enveloped viruses 3%-120min./Application at -10°C:

Add to a pre-mixed 25% ethylene glycol-water mixture



General recommendation for VENNO® VET 1 and VENNO® VET 1 super

Application at a higher temperature reduces the required application concentration.

By heating the water and/or the environment, the exposure for users, the environment and materials can be reduced.

Note: Within the application range up to 1%, there is generally high material resistance of the materials normally used. commonly used materials.

For indications above 1%, clarification with the manufacturer is recommended in case of doubt.

Due to the large number of different materials and building materials, especially metals, we cannot make a generally binding statement about material compatibility.

We do not assume the application risk. We recommend creating a test area before the entire surface is treated with the disinfectant solution, otherwise the exclusion of liability applies.

Satisfies the recommendations of the Friedrich-Loeffler-Institut on means and procedures for the implementation of a disinfection prescribed by animal health law

See also VENNO® VET 1 super with the same wording.

Effective against Aujeszky's virus

Expert opinion Dr. W. Herbst, University of Hohenheim, 15.02.1990, result of the carrier test at 20°C: 0.5 % within 15 min.

Effective against equine herpesvirus type 1

Expert opinion Prof. Dr. D. Strauch, University of Hohenheim, 29.03.90, result of suspension test at 20°C: 0.5 %-5 minutes

Effective against turkey rhinotracheitis virus (TRT virus) strain Wilding

Expert opinion Prof. Dr. E. F. Kaleta, Institute for Poultry Diseases at Justus-Liebig University Giessen, 27.04.1990, result of the germ carrier test on wood at 20°C: 0.5 % within 60 min.

Effective against dysentery / serpulinia hyodysenteriae

Expert opinion Prof. Dr. Th. Blaha, University of Veterinary Medicine Hanover, 27.12.1993, result of the suspension test at 20°C: 1 % within 15 minutes.

Effective against chlamydia

Expert opinion Prof. Dr. E. F. Kaleta, Institute for Poultry Diseases at Justus-Liebig University Giessen, 17.04.1991, result in germ carrier test on wood at 20°C: 0.1 % within 30 min.

Effective against parvoviruses

Expert opinion Prof. Dr. D. Strauch, professor of animal hygiene at the University of Hohenheim, honorary professor at the University of Stuttgart, Ostfildern, 27.04.1990, result of the suspension test at 20°C without protein load: at 1°C to 3°C, 1% within 30 minutes.

Effective against Salmonella typhimurium, Streptococcus suis type 2, Escheria coli type 0149

Expert opinion lic. med. vet. Birgitta Svensmark, cand. med. vet. E. Okholm Nielsen, DS-Laboratoriet, DK-8620 Kjellerup, April 1991, result in the microbial carrier test at 20°C: 1%-120 minutes.

Effective against PRRS, FMD, African swine fever

Expert opinion Dr. B. Haas, Bundesforschungsanstalt für Viruskrankheiten der Tiere, Tübingen, 23.01.1993, result of the suspension test at 20°C: 1% within 15 minutes.

Corrosion tests on metals

Expert opinion Dr. W. Mick, Dr. H. Vogt, NATEC Institute, 28.11.1989, test concentration: 1 and 3 % by weight.

Result based on DIN 50905:

Aluminum, copper and brass are corrosion resistant under the corrosion-resistant under the selected test conditions.

Crude steel and zinc are only slightly attacked by the test solutions. attacked by the test solutions. Under practical conditions of use (e.g. cleaning of cages etc., in the field of intensive animal husbandry) these corrosion rates are negligible.

The organic acids in VENNO® VET 1 offer clear advantages for you and the environment:

• **environmentally appropriate** •

biodegradable (86%) according to OECD 301 E

Biodegradability

Investigation ÖKOLIMNA-Gesellschaft für Ökologie und Gewässerkunde, Gewässerkunde mbH, Burgwedel, August 1991

Test substance: VENNO® VET 1

Test concentration: 100 mg/l.

Test method: Screening test according to OECD 301 E

Result: Biodegradation of the test substance (100 mg/l): 86 % (n. 28 d.).

Test for inhibition of bacterial activity

Investigation ÖKOLIMNA-Gesellschaft für Ökologie und Gewässerkunde, Gewässerkunde mbH, Burgwedel, August 1991

Test substance: VENNO® VET 1

Test method: TTC test according to DEV L 3

Result: The smallest (testable) non-toxic dilution level of the test substance is given as the G-value. G-value 200 mg/l

The advantages of VENNO® VET 1 super

Listed by the German Veterinary Medical Society in the disinfectant list for animal husbandry, www.dvg.net

Animal husbandry section:

Efficacy at 20°C:

Virucidal: Unenveloped viruses 1%-30min;
Enveloped viruses 0,25%-30min
Tuberculocide 5%-120min;
Levurocide 3%-120min. / 4%-60min.;
Special disinfection 3,5%-120min.;
Preventive disinfection 0,5%-120min. / 0,75%-30min.

Efficacy at 10°C:

Virucidal: Unenveloped viruses 1%-120min./1,5%-60min./2%-30min.;
Enveloped viruses 0,25%-120min. / 0,75%-30min.;
Levurocide 4%-120min; Spezielle Desinfektion 4%-120min;
Preventive disinfection 1%-120min. / 1,5%-30min.

Efficacy at 4°C:

Virucidal: Unenveloped viruses 3%-120min. / 4%-30min.;
Enveloped viruses 0,75%-120min. / 1%-60min / 1,5%-30min;
Preventive disinfection 1,5%-60min. / 2%-30min.,

Efficacy at (minus) -10°C:

Virucidal: Enveloped viruses 3%-120min./Application at -10°C:
Add to a pre-mixed 25% ethylene glycol-water mixture *Status 05-20*



Satisfies the recommendations of the Friedrich-Loeffler-Institut on means and procedures for the implementation of a disinfection required by animal health law

According to "3.2 Chemical disinfectants (commercial preparations), DVG list [...] effective commercial preparations can also be used for disinfection. [...] At temperatures below 10°C, either DVG-listed commercial preparations can be used, for which the DVG has attested effectiveness for the special areas of activity and these low temperatures (e.g. 4°C) [...] At expected temperatures of $\leq 0^\circ\text{C}$ in the area of the planned application, de-icing agents can only be used if these special combinations of de-icing agent and the respective disinfectant have been tested for effectiveness and listed by the DVG." *Status 03.02.2020*

Effective even at low temperatures against swine fever (CSF) in manure and on germ carriers

Tested by the Federal Research Institute for Virus Diseases, Insel Riems, Prof. Dr. Kaden, 07/98 - 02/99,
Result: CSF virus carrier test on wood: 1% within 15 minutes at +20°C, +10°C, +4°C and -10°C. In undiluted liquid manure: 0.5% within 24 hours at +20°C, +10°C and +4°C.

Effective against MRSA strain (methicillin-resistant Staphylococcus aureus)

Expert opinion Dr. A. Yilmaz, Clinic for Birds, Reptiles, Amphibians and Fish, Justus-Liebig University Giessen, 22.09.2008,
Result at 20°C: 1% within 5 minutes in the suspension test and 1% within 30 minutes in the germ carrier test on wood.

Effective against classical avian influenza (avian influenza A virus)

Expert opinion Dr. A. Yilmaz, Clinic for Birds..., Justus-Liebig University Giessen, 08.05.2003,
Result in the germ carrier test on wood at 20°C: 1% within 5 minutes or at 10°C: 1% within 5 minutes or at 4°C: 1% within 30 minutes or 2% within 10 minutes.

Effective against porcine circovirus type 2 (PCV 2)

Expert opinion Prof. Dr. E.F. Kaleta, Dr. A. Yilmaz, Institute for Poultry Diseases of the Justus-Liebig University Giessen, 03.04.2003,
result in the germ carrier test on wood at 20°C: 2% within 120 minutes.

Effective against feline calicivirus (FCV) strain F9

Expert opinion Dr. A. Yilmaz, Institute for Poultry Diseases of the Justus-Liebig University Giessen, 14.10.2002,
result in the germ carrier test on wood: at 20°C with 0.5% within 120 minutes and at 10°C with 2% within 60 minutes.

Effective against Ornithobacterium rhinotracheale

Expert opinion Prof. Dr. Dr. habil H. M. Hafez, Chem. u. Veterinäruntersuchungsamt Stuttgart, 24.06.1997,
result in germ carrier test on wood at 20°C: 0.5% within 15 min.

Acute tolerance test after single peroral application

Expert opinion Dr. S. Dickhaus, E. Heisler, PHARMATOX GMBH, Sehnde, 09/1989, according to OECD 401,
Result: The product VENNO® VET 1 can be described as practically non-toxic in a 2% application concentration after a single oral application to the rat.

Testing for primary skin irritation

Expert opinion Dr. S. Dickhaus, E. Heisler, PHARMATOX GMBH, Sehnde, 09/1989, in 2% application concentration in rabbits according to rabbits according to DRAIZE and OECD 404,
Result: According to the index of primary irritation with 0, the product VENNO® VET 1 is classified as non-irritating.

Test for eye irritation

Expert opinion Dr. S. Dickhaus, E. Heisler, PHARMATOX GMBH, Sehnde, 09/1989, on rabbits according to DRAIZE and OECD 405,
result: The 2% application concentration of the product VENNO® VET 1 as "irritant" with the R-phrase No. 36 "Irritating to eyes".

Testing the durability of painted surfaces

Expert opinion Dipl.-Ing. Mathes, Lüdke, TÜV Nord, Institut für Material Testing, Hamburg, 16.10.2001,
Object: 3 metal sheets painted with 2K clear coat metallic (silver), 2K clear coat metallic (red), 2K two-coat paint (green).
Result of the tests with the test concentrations 1%, 2% and 4% VENNO® VET 1 super in aqueous solution:
After repeating the procedure 5 times with 4%, paint surfaces without findings only at (green) loss of gloss. At 1% and 2% all lacquer surfaces without findings.

Reference

Documentation of MENNO CHEMIE-VERTRIEB GMBH.
All expert reports are available on request.

Consultant:

Available from:

| | |
|--|--|
| | |
|--|--|

MENNO recommendation for the application concentration

With MENNO for a better orientation

GPF hygiene formula

Guaranteed hygiene = Precise cleaning + Foam disinfection

1.) Calculation of the Foam Index (FI):

$$\text{Foam Index (FI)} = \frac{\text{Foam volume}}{\text{Water volume}}$$

Optimum foaming index is
between 7 and 12

2.) Calculation of the applied volume

$$\text{Applied volume per m}^2 = \frac{\text{Foam layer}}{\text{Foam Index (FI)}}$$

Table of calculation examples for application volume [L/m²]

| Foam Index (FI) | Foam layer | | | |
|-----------------|------------------------------|------------------------------|------------------------------|------------------------------|
| | 2 mm | 3 mm | 4 mm | 5 mm |
| 5 | 0,40 L/m ² | 0,60 L/m ² | 0,80 L/m ² | 1,00 L/m ² |
| 7,5 | 0,27 L/m ² | 0,40 L/m ² | 0,53 L/m ² | 0,67 L/m ² |
| 10 | 0,20 L/m ² | 0,30 L/m ² | 0,40 L/m ² | 0,50 L/m ² |
| 12,5 | 0,17 L/m ² | 0,24 L/m ² | 0,34 L/m ² | 0,40 L/m ² |
| 15 | 0,13 L/m ² | 0,20 L/m ² | 0,27 L/m ² | 0,33 L/m ² |

3.) The resulting quantities of active ingredients per unit area are available from us on request

In addition to the effective concentration, the application volume per m² on the target area is also required to ensure the effective quantity of active ingredient. However, only volumes of approx. 100 l/m² can be achieved with a water application.

In order to guarantee the application quantity of 400 ml/m² required by the DVG, the disinfection application would have to be carried out up to 4 times without the surfaces drying off in the meantime.

This is hardly feasible in terms of time and personnel. Foam application is therefore the ideal solution. The foaming rate can be determined using the MENNO measuring cup and the required foam coverage can be determined. You can obtain the measuring cup from us.



Preventive disinfection against African swine fever (ASF) and avian influenza

"[...] For preventive disinfection against African swine fever as part of biosecurity measures, DVG-listed commercial disinfectants from the [DVG disinfectant list for animal husbandry](#) (note: only the commercial products listed in this up-to-date list are actually DVG-listed) with the corresponding entry values listed in column 7b for limited virucidal activity (enveloped viruses) can therefore be recommended. [...]"

The specified disinfectant concentrations and exposure times required for effective disinfection must be observed. concentrations and necessary exposure times. It must also be ensured that the concentrations specified at 10°C are used at cool temperatures. At application temperatures below 10°C, the specified disinfectant concentration should be doubled. Disinfectants containing aldehyde and disinfectants based on organic acids (with the exception of peracetic acid) should not be used at cool temperatures below 10°C due to their loss of effectiveness, unless a DVG listing for lower temperatures (4°C) is available. [...]"

"[...] The specified contact time and the minimum application quantity of 400 ml disinfectant solution per square meter must be observed. [...]"

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Langer Kamp 104 • D-22850 Norderstedt • Germany • T: +4940 52906670

F: +4940 529066766 • info@menno.de • www.menno.de