

MENNO Florades®

Special Disinfectant for Horticulture against:
Fungi, Bacteria,
Viruses and Viroids:

„From now on, they will not appear
on leaves anymore.

For sure!“

MENNO Florades®

- for hard surfaces
- for ebb and flow areas
- for standing areas/storing areas
- for capillary matting/gutter
- for pots/trays/boxes/crates
- for equipment/machineries
- for machineries
- for cutting tools/knives/scissors
- for working surfaces
- for laboratory tables

Made in Germany

- Contains:
90 gms benzoic acid per litre
- No gaseous hazards during use
- User friendly
- Exceptional good plant tolerance

MENNO CHEMIE-VERTRIEB GMBH

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MENNO Florades®

Special disinfectant against phyto pathogen germs (fungicid, bactericid, virucid) for floriculture, horticulture (Vegetable production) and agriculture (Potato and Tabaco). For professional users only.

Spectrum of effectiveness:

- **Fungi (inclusive spore forms):** Alternaria, Aspergillus, Botrytis, Cercospora, Chalara, Colletotrichum, Cylindrocladium, Dactylium, Didymella, Erysiphe, Fusarium, Helminthosporium, Mucor, Ophistoma, Peronospora, Pythium, Phytophthora, Ramularia, Rhizoctonia, Rhizopus, Streptomyces, Thielaviopsis, Trichoderma, Verticillium etc.
- **Bacteria:** Acidovorax, Agrobacterium, Clavibacter, Curtobacterium, Dickeya, Erwinia, Pectobacterium, Pseudomonas, Ralstonia, Xanthomonas etc.
- **Virus and viroid's:** ArMV, BePMV, CarMoV, CGMMV, CMV, CyMV, MNSV, ORSV, PepMV, PFBV, PLCV, PLPV, PMMoV, PVX, PVY, RMV, TBRV, TMV, ToBRFV (Tomato brown rugose fruit virus), ToMV, TSV, TSWV, ZYMV, PSTVd, CSVd etc.

Application: After the last use or before each reuse. After thorough, mechanical cleaning.

- Maximal treatments: 1 / No direct treatment of the plants / for disinfection purpose.
- Technique: Watering of standing area and container / resp. flooding of sealed flat, non-profiled standing areas / resp. dipping of cutting tools / resp. coarse spray or foaming of hard surfaces like standing areas, containers, pots, trays, boxes, walls, machines, equipment etc.
- Expense amount of mixture: 0,8 Litre/m² (maximal amount) for floriculture, horticulture resp. agriculture.
MENNO's recommendation of effort: Volume for standing area: ebb-and-flow benches (tiding installations) 0,2 L/m² / irrigation mats up to 0,8 L/m² / for potato warehouse area: boxes, equipment, machinery etc.: 0,4 - 0,8 L/m²
- Exposure time: 16 hours - 1 % resp. 4 hours - 2 % against phyto pathogen bacteria and fungi / 16 hours against virus and viroid's - 1 % against „simple inactivating pathogens“, 2 % against „reasonable inactivating pathogens“, 4 % against „serious inactivating pathogens“ / 3 minutes - 4 % for cutting tools. MENNO's recommendation of exposure time: On hard surfaces and on mats the reaction time is already complete after drying e.g. over night.
The exposure time is specific to the pathogen and could may be reduced / demand by the manufacturer.
- The waiting time is covered by the application conditions and / or the vegetation period which remains between application and use (e.g., harvesting), or the setting of a waiting time in days is not required. Bees are not endangered due to the use of the product as defined by the authorization. The product is classified as not harmful to populations of relevant beneficial insects.

Concentration of application and reaction time:	
Virus and viroid's (simple inactivating pathogens: ArMV, BePMV, CarMoV, CMV, CSVd, CyMV, PLCV, PSTVd, PLPV, TBRV, TSWV, RMV etc.)	All other hard surfaces 1 % / 16 hours
Virus and viroid's (reasonable inactivating pathogens: MNSV, PepMV, PFBV, ZYMV etc.)	2 % / 16 hours
Virus and viroid's (serious inactivating pathogens: ToBRFV, TMV and ToMV)	4 % / 16 hours
Bacteria and fungi (in floriculture, horticulture and agriculture)	1%/16h resp. 2%/4h

Important: Dip of cutting tools; keep pH of the dip below 4.5 (only adding in the MENNO Florades® to the dip). Monitor pH, and if pH getting up 4.5 add MENNO Florades® to reduce pH again (e.g. 200 ml of MENNO Florades® /100 litres water will reduce pH by about 0.5). Do not add any other acidic compounds, as far as organic or inorganic acids! Intensively used dips should checked more frequently, if necessary, renew every day in order to ensure sufficient efficacy. Use of rainwater reduces product consumption. Place cutting knife (minimum 5 pieces) in a rotary stand of a dip in order to ensure the 3 minutes exposure time.

Plants can be safely placed back to hard surfaces after dry off immediately. Flush dripper-hosepipe for disinfection, and flushing with fresh water afterwards.

In extensive tests it was shown, that MENNO Florades® has an exceptional good plant tolerance.

Disclaimer: No damage to ornamental plant cultivation or vegetable cultivation is known for proper application. Cucumber production areas must be heated up and ventilated sufficiently before cultivation. We do not assume the application risk. We accept no liability for the risk of any indication. We recommend carrying out a compatibility test before bringing cultures or products into contact with disinfected surfaces

Virus infections – the problem of recognizing?

Because of the high infectiousness of virus particles, a consistent hygienic management is required. In addition to the transmission paths (such as knives, hands, insects, watering systems, dead plant material, hard surfaces, floor mats, etc.), the exposure time and amount of active ingredients on the target surfaces has to be considered. For more information, expertise of testing and adequate application technique please contact us:

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Consultation and sales: