



# Hygiene in horticulture



- » Stable solution
- » Long effectiveness
- » Measurable effectiveness
- » Harmless for materials
- » Neutral scent
- » Environmentally friendly
- » Long shelf life
- » No residues

# Product features



## Product features:

Active ingredient: benzoic acid (90 g/l)  
Formulation: soluble concentrate  
Mode of action: contact  
Application methods: (foam) spray, pour, dip, brush

## Packaging units::

MENNO® Clean is available in packs of 10, 200 and 1.000 litres.

## Background information Benzoic acid:

Benzoic acid is a naturally occurring component in many fruits and vegetables. It is being used as a food additive to prevent the growth of yeasts, bacteria and fungi. Benzoic acid is also used in cosmetic products.

## Hygiene management

Hygiene is becoming more and more important in every cropping system. Because less curative crop protection products are approved we must look at other means of keeping crops free of disease. In addition to clean crops, food safety and liability also play an important role. Because MENNO® Clean can be used for multi-purposes, it results in a high-quality hygiene management program.

## MENNO® Clean is suitable for the effective cleaning of:

- » empty greenhouses and warehouses
- » plant containers
- » pots, trays, crates
- » concrete floors
- » hygiene stations
- » disinfection mats
- » transport and harvest trolleys (incl. wheels)
- » machines
- » tools, knives
- » gloves

## Dosage

The effectiveness is dependent on the dosage in combination with exposure time. Assuming the surface is clean, a concentration of 2-4% is advised.

## Stability

One of the most important properties of MENNO® Clean is the stability of both the product and the solution. Unlike other ingredients benzoic acid is stable over a long period of time. This has been demonstrated in various research projects.





### Amount of water

Water is a carrier, it enables the active ingredient to be in contact with the pollution. That's why we recommend to always use a high-volume spray technique when applying MENNO® Clean.

### An indication of the amount of water that should be used with different applications

cultivation tables (ebb-/flow)	: 0.2 L/m <sup>2</sup>
cultivation tables with irrigation mats	: 2 L/m <sup>2</sup>
greenhouse structures, machinery	: 0.6 - 0.8 L/m <sup>2</sup>
empty greenhouses, greenhouses	: 2500-3000 L/ha 1000L/acre

### Measurable effectiveness

The effectiveness of MENNO® Clean can easily be measured based on the pH value of the solution. At a pH value under 4.5 the solution is active. This can easily be checked with pH indicator paper or a pH meter. The pH automatically reaches the correct level (depending on the water quality) when preparing the solution. If the pH value is higher than 4.5 when the solution is reused several times, it can be lowered by adding MENNO® Clean. If the solution is contaminated with large amounts of organic material, it is advisable to prepare a new solution.

### Tank mixes

The MENNO® Clean formula contains a wetting agent, so that additional ingredients are not necessary. It is not recommended to mix the product with crop protection products or biocides. Adding other acids to acidify the working solution is not necessary since the correct pH value will set automatically when preparing the MENNO® Clean solution.

### General warning

After cleaning the greenhouse with MENNO® Clean, it must dry thoroughly before plants come into the greenhouse. To rule out any risks, after heating up the greenhouse, always ventilate it well just before planting. This is especially important in cucumber crops. (see also the advice on the label). Avoid direct contact with the crop. In general it is recommended to wear suitable protective clothing and glasses when applying chemical products.

### Advice & information

Use crop protection products safely. Read the label and product information before use.

For further information, please contact your Account Manager or the Royal Brinkman Customer Service.

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