

# Citro Plus

*Hemodialysis Machine  
Terminal Disinfectant*



# 6106 - CITRO PLUS™

## Hemodialysis Machine Terminal Disinfectant

### *For Heat Disinfection of Haemodialysis Machines with Recirculation*

After each hemodialysis treatment, the system hydraulics must be disinfected with a decalcifying disinfectant to remove calcifications and microorganisms. Otherwise, malfunctions may occur depending on the concentrates used and the bicarbonate concentration.

**CITRO PLUS™** is used for chemo-thermal disinfection (a combination of chemical and heat disinfection) of haemodialysis machines with recirculation. CITRO PLUS is a very strong and effective disinfectant because of the synergistic effects of its ingredients.

**CITRO PLUS™** is designed for thermochemical disinfection in haemodialysis machines, e.g. Fresenius haemodialysis system 4008 or Fresenius therapy system 5008. Thermochemical disinfectant for haemodialysis machines with proportional mixing system and recirculation function. It is fully compatible with Fresenius 4008 and 5008 series machines.

### *Advantages of CITRO PLUS™*

- Disinfection and decalcification in one process
- Natural materials used as active ingredients: citric acid, malic acid, lactic acid
- Biodegradable, non-toxic
- Safe for health and environment
- Light lemon scent, colourless

### *Mechanism Of Antimicrobial Action Of Citric Acid*

Destruction of the phospholipid layers in the cell membrane; disturbance of the intracellular pH balance; formation of Ca/Mg salts or salt complexes in the case of citric acid; activity strongly increased by an increase in temperature.

### *Microbiological Properties*

The synergistic effect of its components makes **CITRO PLUS™** a potent disinfectant solution. **CITRO PLUS™** at 84°C has a broad spectrum of microbiocidal activity and works bactericidal, virus inactivating (HBV, HCV, HIV) and fungicidal. A 3% **CITRO PLUS™** solution is bactericidal, fungicidal, virucidal and sporocidal at 84°C.

### *Warning*

However, **CITRO PLUS™** cannot develop any disinfecting action if used at room temperature. To be used according machine instructions at elevated temperatures only.



## Composition (100g Citro Plus contains)

Citric acid (21 %), lactic acid, malic acid, buffers, preservative agents, distilled water. Does not contain phenol and phenol derivatives, glutaraldehyde, quaternary ammonium salts, active chlorine or other halogen compounds.

Shelf Life	Storage	Packaging	Order Information
2 Years	5-25 °C	5 L canister x 4	06106-5000x4

## Citro Plus™ Features

Active Ingredients	Citric acid, malic acid, lactic acid
Antimicrobial Action	Heat disinfectant at 84 °C
Decalcifying	Yes
Cleaning	Yes
Compatibility	No restriction
Storage	2 years at 5-25 °C
Odour	Light lemon odour
Testing of residual disinfectant	Not required
Dilution ratio	1+24
Consumption 4008 without/with filter	Approximately 50/66 ml
Consumption 4008 Online plus/5008/5008S	Approximately 82/96/90 ml

**GBL Gül Biyoloji Laboratuvarı** offers a complete range of disinfectants for hemodialysis centers. We have been manufacturing disinfectants for hemodialysis machines since 1997.

Processes are managed and audited according to **ISO 9001: 2008** and **ISO 13485: 2012** quality management system standards. Moreover, strict quality control procedures, including tests of microbiological effectiveness according to European norms, are carried out in our laboratory.

Our canister mouth and cap are specially designed for hemodialysis machines (DIN 51). Strong references for our products being used for many years in the Turkish market can be submitted upon request.





**Gül Biyoloji Laboratuvarı**

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**Distributor for India**

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