



Calrecia[®] and Cifoban with SecuNect[®]
Taking the next step in our Ci-Ca[®] Therapy

Supporting you to better safeguard your patients

A move forward in our Ci-Ca[®] Therapy

According to the KDIGO AKI guideline, regional citrate anticoagulation is a preferable anticoagulation option in patients treated with Continuous Kidney Replacement Therapy* (CKRT).¹ At a time when healthcare professionals are increasingly involved in non-caregiving activities such as administration, treatment documentation and medication preparation, there is a growing need for reliable, one-stop solutions which decrease the strain on the ICU staff.

Fresenius Medical Care is the first provider to offer the complete range of Ci-Ca[®] Therapy products from a single source. **By taking the next step in improving patient and user safety, we support health care professionals to focus on the essential: patient care.**



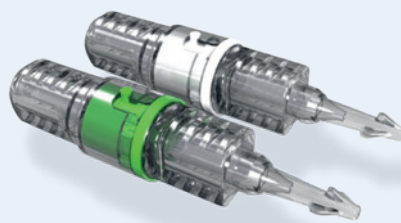
A comprehensive range of Ci-Ca® Therapy products from a single source

Fresenius Medical Care offers a unique and comprehensive Ci-Ca® Therapy product portfolio, designed to minimize human risk factors in a demanding environment where safety is of the utmost importance:

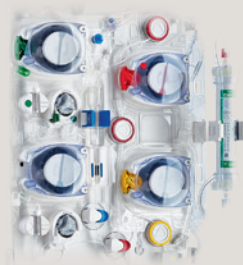


multiFiltratePRO**

Calrecia® 100 mmol/l
and Cifoban 136 mmol/l
fluid bags with SecuNect®



SecuNect® connector technology



SecuKit with SecuNect®



Ci-Ca Dialysate bags

* CKRT and CRRT (Continuous Renal Replacement Therapy) are used synonymously

** All products also available for multiFiltrate

Innovations with a significant impact

Calreca® – the first calcium chloride solution approved for CKRT

With citrate anticoagulation-based CKRT, users are faced with the medicinally unique situation of permanent calcium substitution over several days.² Often, the contents of numerous vials need to be pooled and added to another liquid medium, such as 0.9% saline solution, making the current handling process laborious and time-consuming. It also involves the risk of harm to the processor caused by user error and has potential negative consequences for the patient due to incorrect calcium concentration.

Improved safety and efficiency with Calreca®

Calreca® is a ready-to-use calcium chloride solution developed by Fresenius Medical Care specifically for CKRT and approved for use in Ci-Ca® Therapy. As manual mixing or diluting of fluids is no longer required, handling becomes easier and less accident-prone.³ By using a calcium solution approved for CKRT, HCPs may also reduce the risk of potential adverse reactions to manually mixed medication.

Moreover, **Calreca®** is equipped with the **SecuNect®** safety connector which only fits its matching counterpart and cannot be interchanged with standard connectors. This intelligent safety feature prevents confusing calcium and citrate solutions as well as the unintended use of **Calreca®** as a volume substitution or infusion fluid.



The features of Calrecia® make a difference



Ready-to-use calcium chloride solution

Reduced workload:

No mixing or dilution is needed

Effective protection:

Avoids the risk of handling glass vials and needles



1.5 l solution bag

Efficient workflow:

Long bag change intervals facilitate efficient staff planning



Specifically approved for use in CKRT

Confidence:

The first calcium chloride solution for dedicated use in Ci-Ca® Therapy



Equipped with SecuNect®

Improved safety:

Protection against unintentional misconnection



SecuNect®

Advanced safety in our Ci-Ca[®] Therapy

SecuNect[®]: Innovative connector technology guides you to the right connection

Calrecia[®] and Cifoban fluid bags are equipped with **SecuNect[®]**. The use of this proprietary connector system may increase patient safety through higher product and therapy safety. This is important, as incorrect tubing connections still occur and can result in serious harm.⁴ Furthermore, **SecuNect[®]** offers many features with added value.

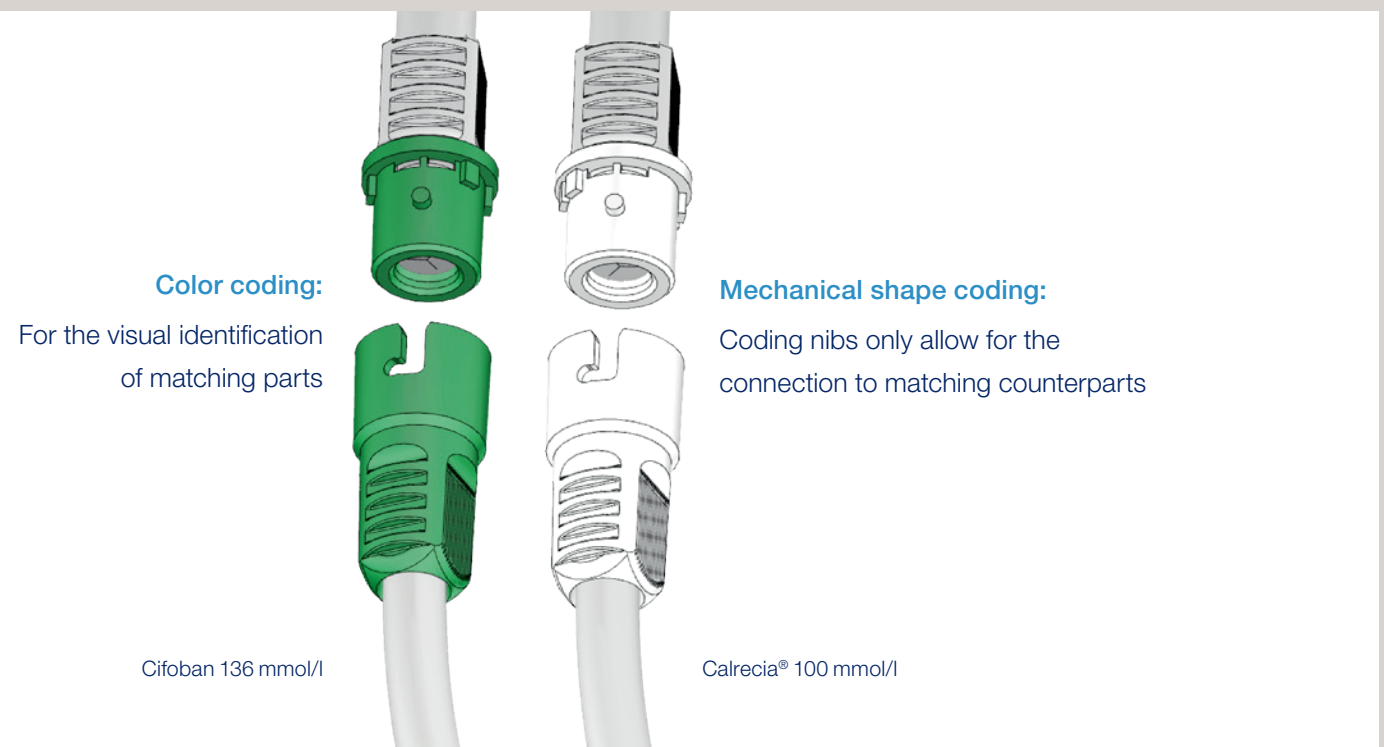
Features for enhanced safety

- **Prevention of leakage** due to a newly developed sealing
- **Better prevention of contamination risks**, as the sealing is well protected

Features for improved handling

- **Haptic and audible** (“click”) feedback when connecting
- **Excellent mechanical stability**
- **SecuNect[®]** double coding

With **SecuNect[®]**, the user is guided visually and mechanically with color coding and shape coding.



Calrecia® and Cifoban – SecuNect®-equipped products for multiFiltratePRO and multiFiltrate

Calrecia® and Cifoban fluid bags with SecuNect®

Calrecia® 100 mmol/l, solution for infusion, calcium chloride dihydrate, 1.5 l

Designation	Country	Article no.
LC 8	CH	F00011211

Cifoban 136 mmol/l, solution for infusion, sodium citrate, 1.5 l

Designation	Country	Article no.
LC 9	CH	F00011563

SecuNect® Treatment Kits

multiFiltratePRO **Ci-Ca Kit**

Designation	Description	Article no.
SecuKit Ci-Ca HD 1000	Ultraflux® AV 1000S (1.8 m ²), multiFiltratePRO SecuCas Ci-Ca® HD	F00008264
SecuKit Ci-Ca HD EMiC2	Ultraflux® EMiC®2 (1.8 m ²), multiFiltratePRO SecuCas Ci-Ca® HD	F00008265
SecuKit Ci-Ca HDF 1000	Ultraflux® AV 1000S (1.8 m ²), multiFiltratePRO SecuCas Ci-Ca® HDF	F00008266

References

1. KDIGO Clinical Practice Guideline for Acute Kidney Injury. *Kidney Int Suppl* 2012. 2:1-138
2. Morgera S et al., A safe citrate anticoagulation protocol with variable treatment efficacy and excellent control of the acid-base status. *Crit Care Med* 2009. 37:2018-24
3. Gholami A et al., Risk factors of needlestick and sharps injuries among healthcare workers. *Int J Hosp Res* 2013. 2:31-384
4. Simmons D et al., Tubing misconnections: Normalization of deviance. *Nutr Clin Pract* 2011. 26:286-293

Mandatory data acc. to Art. 6 AWW

Calreca 100 mmol/l, solution for infusion

Registration number: 68896

Active substance: Calcium chloride dihydrate

Composition:

1000 ml solution contains:
Calcium chloride dihydrate 14,7 g

Excipients:

Water for injection

Therapeutic indications:

Calreca is used in adults and children for calcium substitution during continuous renal replacement therapy (CRRT), slow low-efficient daily dialysis (SLEDD), and therapeutic plasma exchange (TPE) with citrate anticoagulation.

Contraindications:

Hypercalcemia, hyperchloremia

Undesirable effects:

Solution-related: Incorrect use may cause irritation at the infusion site. Extravasation may cause burning, necrosis, and irritation of tissue, cellulitis, and soft tissue calcification. Hypercalcemia.
Treatment-related: Hypothermia, hyper- or hypohydration, hyper- or hypocalcemia, metabolic acidosis or alkalosis, other electrolyte disturbances (e.g., hypokalemia, hypophosphatemia), hypotension.

Marketing authorization holder:

Fresenius Medical Care (Schweiz) AG,
Aawasserstrasse 2, 6370 Oberdorf NW.

Dispensing category: B

Detailed drug information:

<https://swissmedicinfo.ch> (Stand: 03/2023)

Vigilance:

Healthcare professionals are encouraged to report potential serious or adverse reactions via the Electronic Vigilance System EIVIS (www.swissmedic.ch).

Cifoban 136 mmol/l, solution for infusion

Registration number: 68996

Active substance: Sodium citrate

Composition:

1000 ml solution contains:
Sodium citrate 40,0 g

Excipients:

Water for injection, hydrochloric acid 25%

Therapeutic indications:

Cifoban is used in adults and children (newborns excluded) for regional citrate anticoagulation (RCA) in continuous venovenous hemodialysis (CVVHD), continuous venovenous haemodiafiltration (CVVHDF), sustained low-efficiency (daily) dialysis (SLEDD) and therapeutic plasma exchange (TPE) via membrane plasma separation.

Contraindications:

Hypersensitivity to sodium citrate; severely impaired citrate metabolism resulting in citrate accumulation

Undesirable effects:

Solution and treatment-related: Allergic reactions leading to, e.g., low blood pressure, the feeling of sickness, back and abdominal pain, local reaction (itching, rash, reddening of the skin); (severe) electrolyte imbalance, e.g., hypocalcemia, hypernatremia, hypomagnesemia; metabolic alkalosis / acidosis; headache, seizure, coma, arrhythmia, cardiac arrest, hypotension, bronchospasm, respiratory arrest, tachypnoea, vomiting, muscle cramps, fluid overload, pulmonary edema

Marketing authorization holder:

Fresenius Medical Care (Schweiz) AG,
Aawasserstrasse 2, 6370 Oberdorf NW.

Dispensing category: B

Detailed drug information:

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Vigilance:

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