

Concentrates and Solutions

Product Range



Protect your Patient

Cardioprotective Haemodialysis

The reduction of risk factors for cardiovascular diseases (CVD) is core to the development of dialysis systems and products at Fresenius Medical Care. Outstanding cardioprotection must be reflected in all levels of product development and application.

Wide-ranging cardioprotection

There have been tremendous improvements in the quality and efficacy of haemodialysis (HD) therapy in recent years. Despite this, cardiovascular diseases (CVD) remain the leading cause of death for patients with end-stage renal disease (ESRD).

SP

Services

Over 30 years of experience in dialysis at your service.

- Project Planning and Consulting
- Training and Education
- Technical Services
- Water Quality Service (WQS)
- Medical Information Services

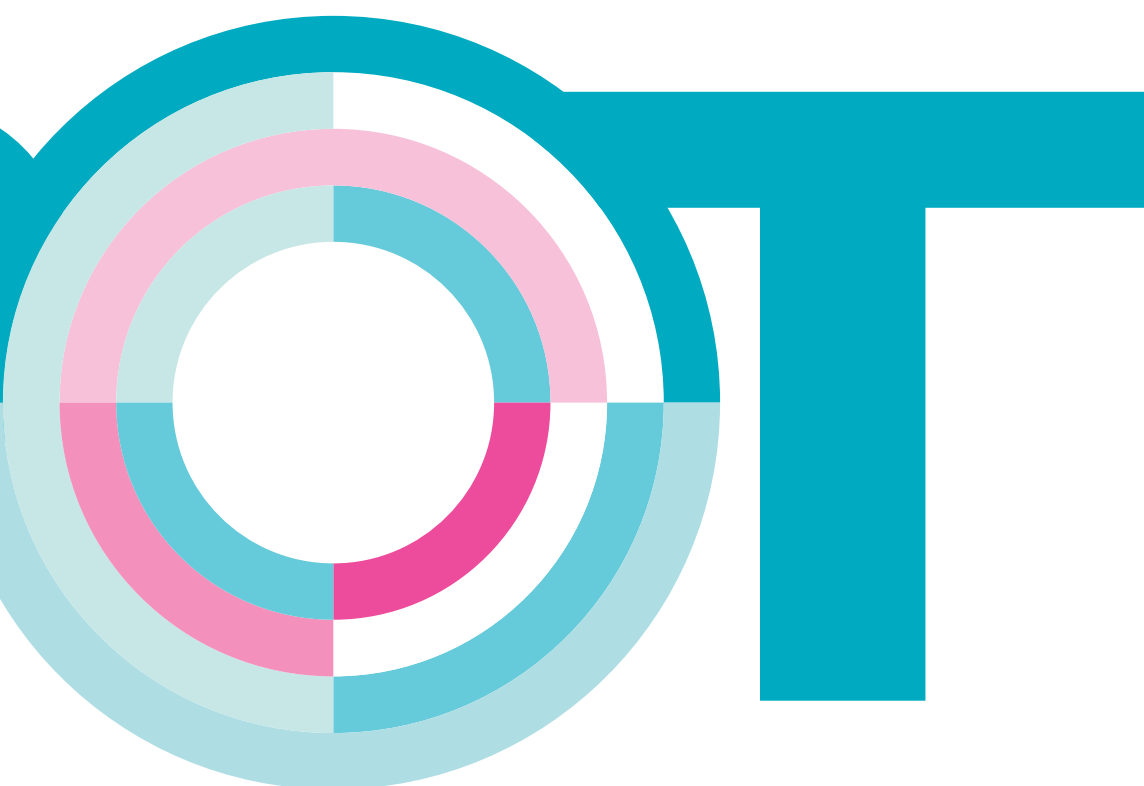
Products

State-of-the-art technologies enable advanced cardioprotective therapies.

- CorDiax product line:
 - 5008 CorDiax and 5008S CorDiax
 - FX CorDiax haemodiafilter
 - BCM-Body Composition Monitor
- Classix product line:
 - 4008S classix
 - FX classix dialysers
- Therapy Data Management System (TDMS)
- Online Purification Cascade (OPC)

Moreover, both overall and cardiovascular mortality are markedly greater in ESRD patients than in the general population. This is why we put Cardioprotective Haemodialysis on the SPOT. A comprehensive approach that includes services, products and therapies is needed to

achieve the best therapeutic performance – meaning improved clinical outcomes and better quality of life, enhanced control of therapy costs, and simpler, safer handling.



Outcomes

Achieving better outcomes with cardioprotective therapies.

- Reduced mortality risk
- Fewer cardiovascular complications
- Optimised use of resources

Therapies

Cardioprotective therapies designed by the world market leader in haemodialysis.

- High-Flux dialysis
- HighVolumeHDF®
- Advanced Fluid Management

Acid Concentrates

smartbag® – Liquid 1+44 acid concentrates in bags

The smartbag® is a flexible canister which combines the advantages of a canister and a bag.



The smartbag® 4.7 L – containing liquid acid concentrates (1+44 AC-F)

Compositions of ready to use dialysis fluid (after mixing with bicarbonate concentrate 8.4 % and purified water)

Type	Na ⁺ mmol/L	K ⁺ mmol/L	Ca ²⁺ mmol/L	Mg ²⁺ mmol/L	Cl ⁻ mmol/L	HCO ₃ ⁻ mmol/L	Acetate mmol/L	Glucose g/L	Osmolarity mosm/L	Art. No. 4.7 L Box of 60	Art. No. 4.7 L Box of 2
smartbag® 111.5	138.00	1.00	1.50	0.5	108.00	32.00	3.00	1.00	289.55	F00 000 064	F00 000 64D
smartbag® 211.25	138.00	2.00	1.25	0.5	108.50	32.00	3.00	1.00	290.80	F00 000 065	F00 000 65D
smartbag® 211.5	138.00	2.00	1.50	0.5	109.00	32.00	3.00	1.00	291.55	F00 000 066	F00 000 66D
smartbag® 211.75	138.00	2.00	1.75	0.5	109.50	32.00	3.00	1.00	292.30	F00 000 232	F00 002 32D
smartbag® 311.25	138.00	3.00	1.25	0.5	109.50	32.00	3.00	1.00	292.80	F00 000 067	F00 000 67D
smartbag® 311.5	138.00	3.00	1.50	0.5	110.00	32.00	3.00	1.00	293.55	F00 000 068	F00 000 68D
smartbag® 411.25	138.00	4.00	1.25	0.5	110.50	32.00	3.00	1.00	294.89	F00 000 236	–
Acid concentrate per pallet										564 L	564 L
Bags / box – boxes / pallet										60 – 2	2 – 60



The smartbag® CA 4.2 L – containing liquid acid concentrates (1+44 AC-F)

Compositions of ready to use dialysis fluid (after mixing with bicarbonate concentrate 8.4 % and purified water)

Type	Na ⁺ mmol/L	K ⁺ mmol/L	Ca ²⁺ mmol/L	Mg ²⁺ mmol/L	Cl ⁻ mmol/L	HCO ₃ ⁻ mmol/L	Citrate mmol/L	Acetate mmol/L	Glucose g/L	Art. No. 4.2 L Box of 72	Art. No. 4.2 L Box of 2
smartbag® CA 211.5	138.00	2.00	1.50	0.50	109.00	32.00	1.00	-	1.00	F00 000 949	F00 006 557
smartbag® CA 211.75	138.00	2.00	1.75	0.50	109.50	32.00	1.00	-	1.00	-	F00 006 558
smartbag® CA 311.5	138.00	3.00	1.50	0.50	110.00	32.00	1.00	-	1.00	F00 002 007	F00 020 07D
smartbag® CA 311.75	138.00	3.00	1.75	0.50	110.50	32.00	1.00	-	1.00	-	F00 006 559
smartbag® CA 411.5	138.00	4.00	1.50	0.50	111.00	32.00	1.00	-	1.00	F00 002 008	F00 006 560
Acid concentrate per pallet										604 L	504 L
Bags / box – boxes / pallet										72 – 2	2 – 60

Concentrate platforms: for application with 5008 CorDiax - M442061 / for application with 5008S CorDiax - M423591

smartbag® 300 L – Liquid 1+44 acid concentrates

The smartbag® 300 L facilitates central concentrate supply at a minimum of storage space.



The smartbag® 300 L – containing liquid acid concentrates (1+44 AC-F)

Compositions of ready to use dialysis fluid (after mixing with bicarbonate concentrate 8.4% and purified water)

Type	Na ⁺ mmol/L	K ⁺ mmol/L	Ca ²⁺ mmol/L	Mg ²⁺ mmol/L	Cl ⁻ mmol/L	HCO ₃ ⁻ mmol/L	Acetate mmol/L	Glucose g/L	Osmolarity mosm/L	Art. No. 300 L
smartbag® 211.25	138.00	2.00	1.25	0.5	108.50	32.00	3.00	1.00	290.80	F00 001 168
smartbag® 211.5	138.00	2.00	1.50	0.5	109.00	32.00	3.00	1.00	291.55	F00 003 068
smartbag® 311.25	138.00	3.00	1.25	0.5	109.50	32.00	3.00	1.00	292.80	F00 003 069
smartbag® 311.5	138.00	3.00	1.50	0.5	110.00	32.00	3.00	1.00	293.55	F00 003 070
smartbag® 411.25	138.00	4.00	1.25	0.5	110.50	32.00	3.00	1.00	294.89	F00 006 659
Acid concentrate per pallet										600 L
Boxes/pallet										2

Please order your individual retrofit kit (Art. No. 6362981) for CDS 08.

Code message: e. g. **smartbag® 211.5** (2xx.x = K⁺ in mmol/L) (x1x.x = Glucose in g/L) (xx1.5 = Ca²⁺ in mmol/L)

Acid Concentrates

AC-F – Liquid 1+44 acid concentrates in canisters

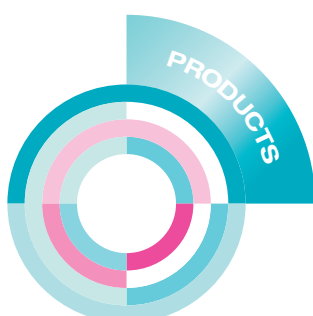
The mixing ratio for all acid concentrates listed below is 1+44. All of them are designed for use with bibag.

Within the haemodialysis machine 1 litre of acid concentrate is mixed with 1.575 litres of liquid bicarbonate concentrate 8.4 % and 42.425 litres of purified water in order to obtain 45 litres of ready-to-use dialysis fluid. The mixing ratio of the haemodialysis machine must be set accordingly (1+44 AC-F).



The labels of acid concentrates are marked red.

Liquid acid concentrates in canisters (1+44 AC-F)											
Composition of ready-to-use dialysis fluid (after mixing with bicarbonate concentrate 8.4 % and purified water)											
Canister 4.2 L		Canister 7.8 L		Na ⁺	K ⁺	Ca ²⁺	Mg ²⁺	Cl ⁻	HCO ₃ ⁻	Acetate	Glucose
Type	Art. No.	Type	Art. No.	mmol/L	mmol/L	mmol/L	mmol/L	mmol/L	mmol/L	mmol/L	g/L
AC-F 211.25	F00 006 337	AC-F 219/1	462 462 1	138.00	2.00	1.25	0.50	108.50	32.00	3.00	1.00
AC-F 211.5	F00 006 338	AC-F 213/4	262 862 1	138.00	2.00	1.50	0.50	109.00	32.00	3.00	1.00
AC-F 211.75	F00 006 339	AC-F 213	362 462 1	138.00	2.00	1.75	0.50	109.50	32.00	3.00	1.00
AC-F 311.25	F00 006 340	AC-F 313/2	562 962 1	138.00	3.00	1.25	0.50	109.50	32.00	3.00	1.00
AC-F 311.5	F00 006 341	AC-F 313/1	562 662 1	138.00	3.00	1.50	0.50	110.00	32.00	3.00	1.00
AC-F 311.75	F00 006 343	AC-F 313	462 662 1	138.00	3.00	1.75	0.50	110.50	32.00	3.00	1.00
AC-F 411.25	F00 006 344	AC-F 419	262 162 1	138.00	4.00	1.25	0.50	110.50	32.00	3.00	1.00
AC-F 411.5	F00 006 345	AC-F 413/1	462 762 1	138.00	4.00	1.50	0.50	111.00	32.00	3.00	1.00
Canisters / pallet		90	60								



Granudial AF – Dry acid concentrates

Granudial AF must be dissolved with purified water with the help of a suitable mixing device according to the instructions given in the package insert in order to obtain liquid acid concentrate. The yielded liquid acid concentrate is for use in a mixing ratio of 1+34.



Dry acid concentrates: Granudial AF											
Composition of the ready-to-use dialysis fluid (after mixing with bicarbonate concentrate 8.4 % and purified water)											
Type	Na ⁺ mmol/L	K ⁺ mmol/L	Ca ²⁺ mmol/L	Mg ²⁺ mmol/L	Cl ⁻ mmol/L	HCO ₃ ⁻ mmol/L	Acetate mmol/L	Glucose g/L	Weight kg	Litres of conc./box	Art. No.
AF80	138.00	2.00	1.50	0.5	106.00	32.00	6.00	1.00	29	100	F00 000 405
AF81	138.00	3.00	1.50	0.5	107.00	32.00	6.00	1.00	29	100	F00 000 406
AF82	138.00	2.00	1.75	0.5	106.50	32.00	6.00	1.00	29	100	F00 000 854
AF83	138.00	2.00	1.25	0.5	105.50	32.00	6.00	1.00	29	100	F00 000 855
AF84	138.00	4.00	1.50	0.5	108.00	32.00	6.00	1.00	29	100	F00 003 558
Boxes / pallet											24

DIAMIX Semi – Dry acid concentrates

DIAMIX must be dissolved with purified water with the help of a suitable mixing device to obtain liquid acid concentrate for use in a mixing ratio of 1+44.



Semi-dry acid concentrates: DIAMIX											
Composition of the ready-to-use dialysis fluid (after mixing with bicarbonate concentrate 8.4 % and purified water)											
Type	Na ⁺ mmol/L	K ⁺ mmol/L	Ca ²⁺ mmol/L	Mg ²⁺ mmol/L	Cl ⁻ mmol/L	HCO ₃ ⁻ mmol/L	Acetate mmol/L	Glucose g/L	Weight kg	Litres of conc./barrel	Art. No. 193 L
DIAMIX AC-F 219/1	138.00	2.00	1.250	0.5	108.50	32.00	3.00	1.00	349	750	800 157 1
DIAMIX AC-F 213/4	138.00	2.00	1.500	0.5	109.00	32.00	3.00	1.00	349	750	800 257 1
DIAMIX AC-F 313/2	138.00	3.00	1.250	0.5	109.50	32.00	3.00	1.00	349	750	800 357 1
DIAMIX AC-F 313/1	138.00	3.00	1.500	0.5	110.00	32.00	3.00	1.00	349	750	800 457 1
DIAMIX AC-F 419	138.00	4.00	1.250	0.5	110.50	32.00	3.00	1.00	349	750	800 557 1
DIAMIX AC-F 413/1	138.00	4.00	1.500	0.5	111.00	32.00	3.00	1.00	349	750	800 657 1

Bicarbonate Concentrates

bibag

The online dry bicarbonate concentrate for Fresenius Medical Care haemodialysis machines.



bibag				
Type	Weight	Composition	Units / box	Art. No.
bibag	650 g	NaHCO ₃	16 bags	508 992 1
bibag	900 g	NaHCO ₃	12 bags	508 991 1
bibag 5008	650 g	NaHCO ₃	16 bags	506 078 1
bibag 5008	900 g	NaHCO ₃	12 bags	506 080 1
Boxes / pallet				56

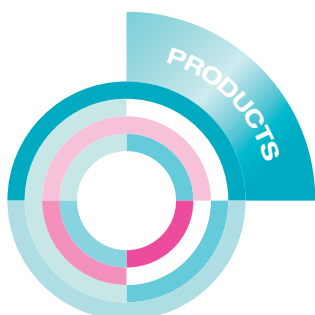
bibag 5008 is the standard module for the 5008 CorDiax, 5008S CorDiax and 4008 classix HD machines.

Granudial BI – Dry bicarbonate concentrate

Granudial BI must be dissolved with purified water with the help of a suitable mixing device according to the instructions given in the package insert in order to obtain liquid 8.4 % bicarbonate concentrate.



Dry bicarbonate concentrates: Granudial BI						
Composition of the concentrate						
Type	Na ⁺ mmol/L	HCO ₃ ⁻ mmol/L	Quantity	Weight / Box kg	Litres of conc./box	Art. No. for 1 box
BI 84	1000	1000	4 bags / box	34	400	508 861 C*
BI 840	1000	1000	2 bags / box	17.5	200	508 860 1**
Boxes / pallet						*24 **48



Rinsing Solutions

Saline 0.9 % in Frekaflex bags

Frekaflex bags are made of PVC and are equipped with 2 Luer-Lock connectors. The solution is specified for rinsing and priming the tubing system and may not be used as infusion solution.



Saline 0.9 % in Frekaflex bags					
Type	Na ⁺ mmol/L	Cl ⁻ mmol/L	Art. No. 30 × 250 mL	Art. No. 15 × 500 mL	Art. No. 10 × 1000 mL
Saline 0.9 %	154	154	F00 004 551	F00 004 550	F00 004 549
Bags / pallet			1680	840	560



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