

REQUIREMENT SPECIFICATIONS

REQUEST FOR PROPOSAL FOR THE SUPPLY AND DELIVERY OF LIQUID HAEMODIALYSIS A-CONCENTRATE AND SODIUM BICARBONATE CARTRIDGE

1. Introduction

1.1 The National Kidney Foundation (“**NKF**”) wishes to appoint a contractor (the “**Contractor**”) for the Supply And Delivery of Liquid Haemodialysis A-Concentrate And Sodium Bicarbonate Cartridge as described in these Requirement Specifications (the “**Goods**”), to all its dialysis centres in Singapore.

2. Product Specification

2.1 The Goods shall conform to the detail specification in **Annex A1 - A2**.

3. Contract Duration, Quantity Requirements and Delivery Schedule

- 3.1 The Contractor shall supply the Goods over a period of:
- a. NKFS 06 (Current) : twelve (12) months **from 1 July 2025 to 30 June 2026**
 - b. NKFS 06 (New-Upcoming) : twelve (12) months **from 1 July 2026 to 30 June 2027**
 - c. NKFS 07, NKFS 09, NKFS 10 and Dry Cartridge Bicarbonate Powder : twenty-four (24) months **from 1 July 2025 to 30 June 2027**
- 3.2 NKF may extend the Contract Period, on the same terms as those contained herein (including on the same Contract Price), for a further duration not exceeding **12 months** for NKFS 06 (Current) and **24 months** for NKFS 06 (New-Upcoming), NKFS 07, NKFS 09, NKFS 10 and Dry Cartridge Bicarbonate Powder by serving written notice of the Company’s desire to renew the term hereof, which notice shall be given not less than 30 days prior to the expiry of the initial Contract Period.
- 3.3 NKF’s estimated consumption for the Goods over a period is set out as below:

S/No.	Item Description	Duration	Estimated Quantity
1	Liquid Haemodialysis A-Concentrate, 5 Litres, NKFS 06 (Current)	1 Jul 2025 to 30 Jun 2026 (12 months)	433,210 cans
2	Liquid Haemodialysis A-Concentrate, 5 Litres, NKFS 06 (New-Upcoming)	1 Jul 2026 to 30 Jun 2027 (12 months)	509,330 cans
3	Liquid Haemodialysis A-Concentrate, 5 Litres, NKFS 07	1 Jul 2025 to 30 Jun 2027 (24 months)	852,770 cans
4	Liquid Haemodialysis A-Concentrate, 5 Litres, NKFS 09	1 Jul 2025 to 30 Jun 2027 (24 months)	216,950 cans
5	Liquid Haemodialysis A-Concentrate, 5 Litres, NKFS 10	1 Jul 2025 to 30 Jun 2027 (24 months)	216,950 cans
6	Dry Cartridge Bicarbonate Powder	1 Jul 2025 to 30 Jun 2027 (24 months)	706,150 unit

Authorised Signature: _____ Vendor’s stamp : _____

3.4 The Goods shall be delivered weekly/twice monthly to such of NKF's dialysis centres as NKF shall stipulate from time to time. Please refer to **Annex B** for the detail list of NKF's Dialysis Centres (as at date of this RFP). For the avoidance of doubt, NKF reserves the right at any time to increase or decrease the number of and to vary and /or change the location of any or all of the listed Dialysis Centres. Avoid delivery from: 1300hours to 1400hours

4. Submission of RFP bids

4.1 Each Vendor should provide the price quote in the Price Schedule.

4.2 All quotations submitted by the Vendor must indicate the prices applicable for the estimated numbers of Goods specified in paragraph 3.3 above.

4.3 The Vendor, at the point of submission of its RFP bids, is required to supply at its own costs the required samples as provided in point 5 for each offered product stipulated in its RFP bids. The NKF shall be at liberty to call for further submission of such samples as required until the samples submitted are in accordance with the requirements of the RFP. Samples after approval shall indicate the standards to be maintained for the duration of the Contract.

4.4 Each vendor is required to indicate the following information for the proposed products in the Price Schedule:

- 4.4.1 The minimum delivery lead time
- 4.4.2 Country of manufacturer
- 4.4.3 Location of storage, including alternative site

5. Submission of samples

5.1 Each vendor shall submit **5 cans/unit** of samples for each of the item in the full range of products set out in the proposal requirement in respect of which they are quoting, free-of charge and non-returnable, to the Company at the following address:

National Kidney Foundation
81 Kim Keat Road,
Singapore 328836
Attention: Ms Mavis Tan
Department: Purchasing

5.2 Each set of samples must be labelled individually with the following information:

- RFP Number
- Item S/N (as per price schedule S/No)
- Company Name
- Product Code Number

5.3 The samples are to be submitted **within four (4) weeks from the Request For Proposal opening date**, or such extended time period as the Company may agree to in writing upon request by the Company, **after the submission of the Request For Proposal**. The vendor may be rejected if samples are not submitted on time.

5.4 If more sample are required, as may be requested by NKF from time to time, on the terms and conditions set out in the Request For Proposal.

Authorised Signature: _____ Vendor's stamp : _____

REQUIREMENT SPECIFICATIONS

SPECIFICATIONS OF LIQUID HAEMODIALYSIS CONCENTRATE FOR BICARBONATE DIALYSIS

Description of Product

- A) A clear colourless solution with the odour of acedic acid , used to prepare dialysate fluid for bicarbonate hemodialysis with a dialysate mixing ratio of 1+34
- B) Liquid Haemodialysis A-Concentrate, various formulation (NKFS 06 (Current), NKFS 06 (New-Upcoming), NKFS 07, NKFS 09 & NKFS 10)

1) Product Requirement and Specification:

1.1.a A-Concentrate NKFS 06 (Current)

Electrolytes in the Final dilution (Part A + Part B + RO water)	Expected value
Sodium (Na ⁺)	140.0 mmol/l
Potassium (K ⁺)	2.0 mmol/l
Calcium(Ca ⁺⁺)	1.25 mmol/l
Magnesium (Mg ⁺⁺)	0.37 mmol/l
Chloride (Cl ⁻)	110.3 mmol/l
Acetate (CH ₃ COO ⁻)	4 mmol/l
Bicarbonate (HCO ₃ ⁻)	31 mmol/l
Glucose	1 g/l

1.1.b A-Concentrate NKFS 06 (New – Upcoming)

Electrolytes in the Final dilution (Part A + Part B + RO water)	Expected value
Sodium (Na ⁺)	140.0 mmol/l
Potassium (K ⁺)	2.0 mmol/l
Calcium(Ca ⁺⁺)	1.25 mmol/l
Magnesium (Mg ⁺⁺)	0.5 mmol/l
Chloride (Cl ⁻)	110.3 mmol/l
Acetate (CH ₃ COO ⁻)	4 mmol/l
Bicarbonate (HCO ₃ ⁻)	31 mmol/l
Glucose	1 g/l

1.2 A-Concentrate NKFS 07

Electrolytes in the Final dilution (Part A + Part B + RO water)	Expected value
Sodium (Na ⁺)	140 mmol/l
Potassium (K ⁺)	2 mmol/l
Calcium(Ca ⁺⁺)	1.5 mmol/l
Magnesium (Mg ⁺⁺)	0.5 mmol/l
Chloride (Cl ⁻)	111 mmol/l
Acetate (CH ₃ COO ⁻)	3 mmol/l
Bicarbonate (HCO ₃ ⁻)	32 mmol/l
Glucose	0.9 g/l

Authorised Signature: _____

Vendor's stamp : _____

1.3 A-Concentrate NKFS 09

Electrolytes in the Final dilution (Part A + Part B + RO water)	Expected value (mmol/l)
Sodium (Na ⁺)	138 mmol/l
Potassium (K ⁺)	3 mmol/l
Calcium(Ca ⁺⁺)	1.25 mmol/l
Magnesium (Mg ⁺⁺)	0.5 mmol/l
Chloride (Cl ⁻)	109.5
Acetate (CH ₃ COO ⁻)	3 mmol/l
Bicarbonate (HCO ₃ ⁻)	32 mmol/l
Glucose	1 g/l

1.4 A-Concentrate NKFS 10

Electrolytes in the Final dilution (Part A + Part B + RO water)	Expected value (mmol/l)
Sodium (Na ⁺)	138 mmol/l
Potassium (K ⁺)	3 mmol/l
Calcium(Ca ⁺⁺)	1.5 mmol/l
Magnesium (Mg ⁺⁺)	0.5 mmol/l
Chloride (Cl ⁻)	110 mmol/l
Acetate (CH ₃ COO ⁻)	3 mmol/l
Bicarbonate (HCO ₃ ⁻)	32 mmol/l
Glucose	1 g/l

2) Packaging Requirement for A-Concentrate NKFS 06, NKFS 07, NKFS 09 & NKFS 10:

- Each 5 litre in volume capacity of liquid concentrate should be contained in air-tight, tamper-proof plastic container or bag with appropriate label and volume marking.
- The **label must be clear with indication on the composition of the solution and enable easy identification on the different types of liquid haemodialysis concentrates.**
- Sample of the **approved label** for the different formulations are to be provided at the point of tender submission.

3) Quality Control

- Supplier must ensure the quality of concentrates and meet the NKF individual biochemistry parameters limits before releasing for use in NKF dialysis centers. The certificate of analysis need to be submitted.

4) Certification Requirement for A-Concentrate NKFS 06(current), NKFS 06 (New-Upcoming), NKFS 07, NKFS 09 & NKFS 10:

- Is HSA registration required? Yes / No
- Has the product been registered? Yes / No / Pending / Not Applicable
- If yes, the registration no. is:- NKFS 06 (Current) _____
NKFS 06 (New-Upcoming) _____
NKFS 07 _____
NKFS 09 _____
NKFS 10 _____
- The HSA classification is Class A / B / C / D
- Country of manufacturer _____

Authorised Signature: _____

Vendor's stamp : _____

Vendor shall provide the following documents to support the certification of the product:

- f) Product licence with Health Science Authority
- g) Manufacturing licence with Health Science Authority
- h) Quality Certificate of Product
- i) Product literature; Catalogue or brochure
- j) Any other relevant certification or clinical papers necessary for the product
- k) Certificate of analysis /Conformity with parameters as in general specification .
- l) Material Safety Data Sheet.

5) The awarded vendor must keep minimally 4 different batches at their warehouse at all times.

Authorised Signature: _____

Vendor's stamp : _____

REQUIREMENT SPECIFICATIONS

SPECIFICATIONS OF LIQUID HAEMODIALYSIS CONCENTRATE FOR BICARBONATE DIALYSIS

Description of Product

- 2 Dry Cartridge Bicarbonate Powder is used for the on-line preparation of bicarbonate solution in hemodialysis machines. This solution is subsequently used to formulate the dialysate fluid with mixing ratio of 1+34.

General Specification

1) Product Requirement and Specification:

Quality

- BP / EP / USP Grade (British Pharmacopoeia / European Pharmacopoeia / US Pharmacopoeia Grade)
- Product shall comply with General Specification.
- Capacity per unit: 760gm

Formula

- NaHCO₃

Molecular Weight

- 84.01

Chemical Analysis

- Iron (as Fe)
- Organic (as COD)
- Carbonate (as CO₃)
- Arsenic (as As)
- Sulfur Compounds
- Chloride (as Cl)
- Aluminium (as Al)
- Copper (as Cu)
- Calcium (as Ca)
- Magnesium (as Mg)
- Heavy Metals

Maximum Level

- 5 ppm
- 100 ppm
- 0.23%
- 2 ppm
- 150 ppm
- 150 ppm
- 2 ppm
- 1 ppm
- 100 ppm
- 40 ppm
- 5 ppm

Additional Analyses

- | | |
|-------------------------------|---------------------------------|
| • Assay | 99.0% - 100.5% |
| • Loss on drying | 0.25% max |
| • Insoluble substances | Meet BP / EP / USP requirements |
| • Ammonia | Meet BP / EP / USP requirements |
| • Organic volatile impurities | Meet BP / EP / USP requirements |

Particle Size Distribution

- Free flow and dissolve easily

General Properties

- | | |
|---------------------------------------|--|
| • Particle density, g/cm ³ | 2.22 |
| • pH of 1% solution @ 25°C (77°F) | 8.3 |
| • Appearance | White crystalline powder |
| • Thermal decomposition | Decomposes (without melting) into Na ₂ CO ₃ , H ₂ O and CO ₂ |

Authorised Signature: _____

Vendor's stamp : _____

2) Packaging Requirement

- Each packaging must have clear label indicating the batch number or lot number, manufacturing date & expiry date.

a) Certification Requirement

- b) Is HSA registration required? Yes / No
- c) Has the product been registered? Yes / No / Pending / Not Applicable
- d) If yes, the registration no. is:- _____
- e) The HSA classification is Class A / B / C / D
- f) Country manufacture _____

Vendor shall provide the following documents to support the certification of the product:

- g) Product licence with Health Science Authority
- h) Manufacturing licence with Health Science Authority
- i) Quality Certificate of Product
- j) Product literature; Catalogue or brochure
- k) Any other relevant certification or clinical papers necessary for the product
- l) Certificate of analysis /Conformity with parameters as in general specification .
- m) Material Safety Data Sheet.

Authorised Signature: _____

Vendor's stamp : _____

LIST OF NKF DIALYSIS CENTRES

NKF DC ADDRESS LIST			
ADT	761 WOODLANDS The Hour Glass-NKF Dialysis Centre (Admiralty Branch) BLK 761 Woodlands Ave 6, #01-108, S (730761) Tel: 6362 2153 / Fax: 6362 2360 SSN - Vinod Rajendran	PNG	PUNGGOL OASIS TERRACE NKF Dialysis Centre Supported by Ngiam Kia Hum & Family BLK 681 Punggol Drive, #02-02, S (820681) Tel: 62437020 / Fax: 62437022 NM - Li Yang / Sivamani
ALJ	102 ALJUNIED Hong Leong-NKF Dialysis Centre BLK 102 Aljunied Crescent, #01-265, S (380102) Tel: 6743 3572 / Fax: 6743 0817 NM - Lija Yarghese	PSR	180 PASIR RIS Tampines Chinese Temple-NKF Dialysis Centre BLK 180 Pasir Ris St 11, #01-06, S (510180) Tel: 6583 9500 / Fax: 6583 0779 SSN - Maricris
AM2	633 ANG MO KIO Western Digital-NKF Dialysis Centre BLK 633 Ang Mo Kio Ave 6, #01-5155, S (560633) Tel: 6459 0113 / Fax: 6552 1697 NM - Tan Bee Lei	PR2	427 PASIR RIS NKF Dialysis Centre Supported by TL Whang Foundation BLK 427 Pasir Ris Drive 6, #01-35/43, S (510427) Tel: 6243 1008 / Fax: 6243 4332 NM - Bindumol
AM3	565 ANG MO KIO Pei Hwa Foundation-NKF Dialysis Centre BLK 565 Ang Mo Kio Ave 3, #01-3401, S (560565) Tel: 6552 6569 / Fax: 6552 6539 NM - Cheong Lay Tin	QT1	55 STRATHMORE NKF Dialysis Centre Supported by San Wang Wu Ti Religious Society BLK 55 Strathmore Ave, #01-145, S (140055) Tel: 6778 0330 / Fax: 6777 6155 NM - Bakhtia Mary
BB2	113A BUKIT BATOK WEST NKF Dialysis Centre Supported by Singapore Buddhist Youth Mission BLK 113A Bt Batok West Ave 6, #01-01, S (651113) Tel: 6513 6873 / Fax: 6322 7715 NM - Doi Ling	SKG	SENGKANG COMMUNITY HOSPITAL NKF Dialysis Centre Supported by San Wang Wu Ti Religious Society BLK 1 Anchorvale St, #01-26, S (544835) Tel: 6908 4501 / Fax: 6908 4504 SSN - Mao Wenni
BED	27 NEW UPPER CHANGI NKF Dialysis Centre Supported by San Wang Wu Ti Religious Society BLK 27 New Upper Changi Rd, #01-694 S (462027) Tel: 6444 4278 / Fax: 6444 4978 SSN - Ei Cho Pann / Email ID: eicho.pann@nkfs.org	SMI	101 SIMEI Kwan Im Thong Hood Cho Temple-NKF Dialysis Centre (Simei Branch) BLK 101 Simei St 1, #01-892, S (520101) Tel: 6785 9882 / Fax: 6786 6268 NM - Wang Jing
BD2	105 BEDOK NKF Dialysis Centre Supported by Man Fatt Lam Buddhist Temple BLK 105 Bedok North Ave 4, #01-2168, S (460105) Tel: 6243 7349 / Fax: 6214 0210 SSN - Luo Fang	SRG	201 SERANGOON IFPAS-NKF Dialysis Centre BLK 201 Serangoon Central, #01-30, S (550201) Tel: 6285 4113 / Fax: 6284 2553 SSN - Siti Khadijah Ismail
BM2	128 BUKIT MERAH The Singapore Buddhist Lodge-NKF Dialysis Centre BLK 128 Bukit Merah View, #01-22 S (150128) Tel: 6878 0552 / Fax: 6878 0021 SSN Nur Asyiqin	TM1	935 TAMPINES National Trades Union Congress/Singapore Pools-NKF Dialysis Centre BLK 935 Tampines St 91, #01-333, S (520935) Tel: 6789 8534 / Fax: 6784 5244 SN - Wang Li Chao
BPJ	274 BANGKIT NKF Dialysis Centre Supported by New Creation Church BLK 274 Bangkit Rd, #01-54, S (670274) Tel: 6764 6400 / Fax: 6764 2004 DNM - Zhang Xiaoling	TM2	271 TAMPINES NKF Dialysis Centre Supported by Wong Sui Ha Edna BLK 271 Tampines St 21, #01-99, S (520271) Tel: 6789 9878 / Fax: 6789 7336 NM - Sujko Michael
BP2	275 BANGKIT Le Champ-NKF Dialysis Centre (Bukit Panjang Branch) BLK 275 Bangkit Rd, #01-96, S (670275) Tel: 6891 2782 / Fax: 6891 2592 DNM - Aye Aye Chein	TPH	225 TOA PAYOH NKF Dialysis Centre Supported by Toa Payoh Seu Teck Sean Tong BLK 225 Toa Payoh Lorong 8, #01-54, S (310225) Tel: 6254 2066 / Fax: 6251 9484 NM - Corales Presles Salvador

Authorised Signature: _____

Vendor's stamp : _____

CLE	326 CLEMENTI Lew Foundation-NKF Dialysis Centre BLK 326 Clementi Ave 5, #01-175, S (120326) Tel: 6775 0668 / Fax: 6775 0891 NM - Xu Chun	TP2	TOA PAYOH WEST CC Seck Hong Choon-NKF Dialysis Centre BLK 200 Toa Payoh Lorong 2, #03-01, S (319642) Tel: 6970 4190 / Fax: 6970 4195 NM - Dolly Fongnijil Poulosse
CP1	IRC LEVEL 1 NKF IRC Supported by The Sirivadhanabhakdi Foundation 500 Corporation Road Level 1 S (649808) Tel: 6359 3610 / Fax: 6251 4174 NM - Harold Yu / Mar Mar Aung	TWY	113 TECK WHYE Leong Hwa Chan Si Temple-NKF Dialysis Centre BLK 113 Teck Whye Lane, #01-666, S (680113) Tel: 6769 0178 / Fax: 6769 9231 NM - Wong Wai Mei
CP2	IRC LEVEL 2 NKF IRC Supported by The Sirivadhanabhakdi Foundation 500 Corporation Road Level 2 S (649808) Tel: 6359 3620 / Fax: 6251 4175 SSN - G. Birundha	UBK	19 UPPER BOON KENG Sakyadhita-NKF Dialysis Centre Blk 19 Upper Boon Keng Rd #01-1220, S (380019) Tel: 6743 1278 / Fax: 6743 1237 NM - Corazon Eriguel
GMH	1 GHIM MOH Woh Hup-NKF Dialysis Centre 1 Ghim Moh Road, #01-358, S (270001) Tel: 64679200 / Fax: 64679231 NM - Surban Louie	URD	311 UBI Foo Hai-NKF Dialysis Centre BLK 311 Ubi Ave 1, #01-383 S (400311) Tel: 6747 8864 / Fax: 6747 8823 SSN - Aloysius
HG1	114 HOUGANG Singapore Buddhist Welfare Services-NKF Dialysis Centre BLK 114 Hougang Ave 1, #01-1298, S (530114) Tel: 6382 6332 / Fax: 6383 0203 NM - Karen Ann	WCR	701 WEST COAST The Hour Glass-NKF Dialysis Centre (West Coast Branch) Blk 701 West Coast Rd #01-323, S (120701) Tel: 6560 1184 / Fax: 6560 1076 NM - Umarani
HG2	628 HOUGANG NKF Hougang-Punggol Dialysis Centre BLK 628, Hougang Ave 8, #01-108, S (530628) Tel: 6284 1877 / Fax: 6284 0867 SSN - Zhang Li	WD1	825 WOODLANDS Thong Teck Sian Tong Lian Sin Sia-NKF Dialysis Centre BLK 825 Woodlands St 81, #01-30, S (730825) Tel: 6365 1810 / Fax: 6365 4179 SSN - Thangaraju Malini
JE1	240C JURONG EAST NKF Dialysis Centre Supported by Yuhua Grassroots Organisations BLK 240C Jurong East Ave 1, #01-01, S (603240) Tel: 6970 1847 / Fax: 6970 1849 NM - Su Xiaoping	WD2	365 WOODLANDS SCAL-NKF Dialysis Centre (Woodlands Branch) BLK 365 Woodlands Ave 5, #01-490, S (730365) Tel: 6362 4905 / 6362 3956 / Fax: 6362 5849 NM - Rey Mark / SSN Yanqiu
Jw1	744 JURONG WEST Sheng Hong Temple-NKF Dialysis Centre BLK 744 Jurong West St 73, #01-19, S (640744) Tel: 6794 1061 / Fax: 6794 1071 NM - Kumaresan Shanmugapriya	YS1	203 YISHUN Toa Payoh Seu Teck Sean Tong-NKF Dialysis Centre BLK 203 Yishun St 21, #01-239, S (760203) Tel: 6759 4002 / Fax: 6759 4003 SSN - Palana Francis Alvarez
Jw2	940 JURONG WEST NKF Dialysis Centre Supported by The Sirivadhanabhakdi Foundation Blk 940 Jurong West Street 91, #01-441, S (640940) Tel: 6316 6246 / Fax: 6316 6194 NM - Minimol / SSN Kang Jianli	YS2	639 YISHUN Le Champ-NKF Dialysis Centre (Yishun Branch) BLK 639, Yishun St 61, #01-168, S (760639) Tel: 6257 1860 / Fax: 6257 1650 NM - Syuhaidah Salleh
KKT	Temporary Closure from 29/7/24 onwards	YS3	840 YISHUN SCAL-NKF Dialysis Centre (Yishun Branch) BLK 840 Yishun St 81, #01-382, S (760840) Tel: 64813006 / Fax: 64813076 DNM - A. Kalavani
KLA	43 BENEDEER Kwan Im Thong Hood Cho Temple-NKF Dialysis Centre (Kolam Ayer Branch) BLK 43 Bendemeer Rd, #01-1018, S (330043) Tel: 6291 3946 / Fax: 6291 3969 NM - Leah May Estacio	YS4	YISHUN COMMUNITY HOSPITAL NKF Dialysis Centre Supported by Keppel 2 Yishun Central 2, #03-01 Yishun Community Hospital, S (768024) Tel: 6970 4213 / Fax: 6970 4216 SNM - Pan Mei Yu
MSD	204 MARSILING Jo & Gerry Essery-NKF Dialysis Centre BLK 204 Marsiling Drive, #01-188, S (730204) Tel: 6368 0291 / Fax: 6368 0267 NM - Smitha James		

Accepted By:

Authorised Signature: _____

Signatory's name : _____

Signatory's title : _____

Vendor's name : _____

Vendor's stamp : _____