COMPATIBILITY GUIDE

BAXTER: Aminomel, Aminopad, Cernevit, Clinimix, ClinOleic, Junyelt, Nutryelt, OliClinomel, Olimel, Primene, Synthamin

AUGUST 2021

Choose the Parenteral Nutrition profile **that's optimised for your patients' needs.**

You are receiving this compatibility booklet as a valued established Baxter customer in order to provide you with updated compatibility information on our products. This convenient booklet is designed to provide you with the information required to accurately include additives to OLIMEL and many other formulations, giving you the information to achieve optimised nutritional balance for your patients.

OLIMEL 3-chamber bags provide you with a wide range of protein and energy supply[1], which you can tailor to meet your patients' specific parenteral nutritional requirements.

OLIMEL and OLICLINOMEL have:

- Room temperature storage
- 24 month shelf life
- 9 (7+2) days physical stability after activation and for specific additions: 7 days at 2-8°C followed by 48 hours at room temperature (25°C)

CLINIMIX has:

- Room temperature storage
- 24 month shelf life
- 9 (7+2) days physical stability after activation and for specific additions: 7 days at 2-8°C followed by 48 hours at room temperature (25°C)

Add micronutrients[2] such as CERNEVIT and NUTRYELT to make OLIMEL, OLICLINOMEL and CLINIMIX complete.

- All PN prescriptions should include a daily dose of multivitamins and of trace elements.[2]
- Providing micronutrients to include the full range of trace elements and vitamins is an integral part of nutritional support.[2,3,4]

CERNEVIT and NUTRYELT have:

- CERNEVIT has a 2 year shelf life and NUTRYELT has a 3 year shelf life
- Room temperature storage
- Comprehensive physical stability data to support inclusion to Baxter 3-in-1 and 2-in-1 bags

Good practices for PERIOLIMEL / OLIMEL Use:

- Ensure that the product is at room temperature when breaking the nonpermanent seals.
- Confirm the integrity of the bag and of the nonpermanent seals. Use only if the bag is not damaged; if the nonpermanent seals are intact (i.e., no mixture of the contents of the 3 compartments); if the amino-acid solution and the glucose solution are clear, colourless, or slightly yellow, and practically free of visible particles; and if the lipid emulsion is a homogeneous liquid with a milky appearance.
- Never pull on the seals.
- It is recommended that the product be used immediately after the nonpermanent seals between the 3 compartments have been opened. However, the stability of the reconstituted emulsion has been demonstrated for 7 days (between 2°C and 8°C) followed by 48 hours at temperatures not exceeding 25°C.

1. SmPCs for OLIMEL N5, N7, N9, N12 and PERIOLIMEL.
2. Singer et al. ESPEN Guideline on clinical nutrition in the intensive care unit. Clin Nutr 2019; 38: 48-79.
3. Nutrition support for adults: oral nutrition support, enteral tube feeding and parenteral nutrition. Feb 2006. www.nice.org.uk/CG032.
4. Shenkin A. The role of vitamins and minerals. Clin Nutr 2003; Suppl 2: S29 – S322.

OLIMEL features a unique vertical design for easy activation. **Just roll, mix and use.**

1

PEEL THE OVERPOUCH
Peel the front of the overpouch using the notches. Discard the overpouch.

2

ROLL THE BAG
Place the bag flat and manually roll the bag onto itself, starting at the top of the bag (hanger end). Continue to roll the bag until the seals are opened along approximately half of their length.

- Make sure bag is at room temperature
- Always use aseptic technique

3

MIX THE CONTENT
Mix by inverting the bag at least 3 times.

4

ADD MICRONUTRIENTS (IF NEEDED)
The capacity of the bag is sufficient to enable additions such as vitamins, electrolytes, and trace elements. Vitamins may be added into the glucose compartment before the mixture is reconstituted. Any further additions may be made into the reconstituted mixture. After any additions are made mix the contents of the bag and the additives.

5

BEFORE ADMINISTRATION:
Check the route, rate and the duration of administration.

ADMINISTER PERIOLIMEL / OLIMEL
Hang the bag. Twist off the protector from the administration outlet and firmly insert the spike of the infusion set into the administration outlet. The recommended duration of infusion is between 12 and 24 hours.

Notes

Notes for making additions to OLIMEL, OLICLINOMEL and CLINIMIX

All products mentioned in the following tables are not necessarily available in all countries, or may be recognized as a different name (e.g. Nutryelt (Addel Trace, Supplyelt); Addaven (Supliven, Suppliven, Additrace N, Addamel N7.7, Tracel Novum); Addamel N (Additrace, Addel N, Tracitrans, Tracel); Tracutil (Olitrace); Junyelt (Nutryelt Pediatric, Addel Junior, Tracyelt)).

Reconstituted OLIMEL formulations have a shelf life of up to 7 days stored at 2-8°C, followed by 48 hours at room temperature, 25°C (7+2 days).

The above shelf life is valid for admixtures prepared and / or supplemented using strict aseptic technique. From a microbiological point of view, the admixtures should be used immediately after preparation and / or supplementation. If not used immediately, in-use storage times and conditions prior to use are the responsibility of the user and would normally not be longer than 24 hours, unless preparation and / or supplementation has taken place under controlled and validated aseptic conditions.

Vitamin C may oxidise during storage. It is recommended to infuse the vitamin-containing mixture within 72 hours after the preparation.

For sodium and potassium, it is acceptable to increase the concentration of one as long as the total concentration does not exceed the sum of the quoted maximum levels for sodium and potassium.

It is acceptable to increase the concentration of magnesium as long as the total concentration of calcium and magnesium does not exceed the sum of the quoted maximum levels for magnesium and calcium. However, the calcium content or concentration should never be increased above the quoted limit for calcium.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL Formulations

PeriOlimel N4E 1000 ml

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
4	700	600	75	30

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition***	**Maximum total level**
Sodium	21	$Na^+ + K^+$ = 263 (103)[2]	$Na^+ + K+$ = 300 (140)[2]
Potassium	16		
Magnesium	2.2	3.4	5.6
Calcium	2	3 (1)[2]	5 (3)[2]
Organic Phosphate[3]	8.5	15 (7.5)[4]	23.5 (16)[4]
Inorganic Phosphate	0	8 (0)[4]	8 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 1 vial (10 mL) Addamel N or 1 vial (10 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	1 vial Cernevit or 1 vial Soluvit + 1 vial Vitalipid
Glutamine	150 mL Dipeptiven
Fish Oil (min. and max. addition):	25 mL – 75 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 2.25 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

PeriOlimel N4E 1500 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
6	1050	900	112.5	45

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	32	$Na^+ + K^+$ = 394 (154)[2]	$Na^+ + K+$ = 450 (210)[2]
Potassium	24		
Magnesium	3.3	5.1	8.4
Calcium	3	4.5 (1.5)[2]	7.5 (4.5)[2]
Organic Phosphate[3]	12.7	22.5 (11.3)[4]	35.2 (24)[4]
Inorganic Phosphate	0	12 (0)[4]	12 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 1.5 vials (15 mL) Addamel N or 1.5 vials (15 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	1.5 vials Cernevit or 1.5 vials Soluvit + 1.5 vials Vitalipid
Glutamine	225 mL Dipeptiven
Fish Oil (min. and max. addition):	38 mL – 113 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 2.25 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

PeriOlimel N4E 2000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
8	1400	1200	150	60

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	42	$Na^+ + K^+$ = 526 (206)[2]	$Na^+ + K+$ = 600 (280)[2]
Potassium	32		
Magnesium	4.4	6.8	11.2
Calcium	4	6 (2)[2]	10 (6)[2]
Organic Phosphate[3]	17	30 (15)[4]	47 (32)[4]
Inorganic Phosphate	0	16 (0)[4]	16 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 2 vials (20 mL) Addamel N or 2 vials (20 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	2 vials Cernevit or 2 vials Soluvit + 2 vials Vitalipid
Glutamine	300 mL Dipeptiven
Fish Oil (min. and max. addition):	50 mL – 150 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 2.25 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

PeriOlimel N4E 2500 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
10	1750	1500	187.5	75

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	53	$Na^+ + K^+$ = 657 (257)[2]	$Na^+ + K+$ = 750 (350)[2]
Potassium	40		
Magnesium	5.5	8.5	14
Calcium	5	7.5 (2.5)[2]	12.5 (7.5)[2]
Organic Phosphate[3]	21.2	37.5 (18.8)[4]	58.7 (40)[4]
Inorganic Phosphate	0	20 (0)[4]	20 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 2 vials (20 mL) Addamel N or 2 vials (20 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	2.5 vials Cernevit or 2.5 vials Soluvit + 2.5 vials Vitalipid
Glutamine	375 mL Dipeptiven
Fish Oil (min. and max. addition):	63 mL – 188 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 2.25 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N5E 1500 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
7.8	1490	1290	172.5	60

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	53	$Na^+ + K^+$ = 352 (112)[2]	$Na^+ + K+$ = 450 (210)[2]
Potassium	45		
Magnesium	6	2.4	8.4
Calcium	5.3	2.2 (0)[2]	7.5 (5.3)[2]
Organic Phosphate[3]	22.5	15 (3.8)[4]	37.5 (26.3)[4]
Inorganic Phosphate	0	4.5 (0)[4]	4.5 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 1.5 vials (15 mL) Addamel N or 1.5 vials (15 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	1.5 vials Cernevit or 1.5 vials Soluvit + 1.5 vials Vitalipid
Glutamine	225 mL Dipeptiven
Fish Oil (min. and max. addition):	38 mL – 113 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N5E 2000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
10.4	1980	1720	230	80

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	70	$Na^+ + K^+$ = 470 (150)[2]	$Na^+ + K+$ = 600 (280)[2]
Potassium	60		
Magnesium	8	3.2	11.2
Calcium	7	3 (0)[2]	10 (7.0)[2]
Organic Phosphate[3]	30	20 (5)[4]	50 (35)[4]
Inorganic Phosphate	0	6 (0)[4]	6 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 2 vials (20 mL) Addamel N or 2 vials (20 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	2 vials Cernevit or 2 vials Soluvit + 2 vials Vitalipid
Glutamine	300 mL Dipeptiven
Fish Oil (min. and max. addition):	50 mL – 150 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

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OLIMEL N5E 2500 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
13	2480	2150	287.5	100

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	88	$Na^+ + K^+$ = 587 (187)[2]	$Na^+ + K+$ = 750 (350)[2]
Potassium	75		
Magnesium	10	4	14
Calcium	8.8	3.7 (0)[2]	12.5 (8.8)[2]
Organic Phosphate[3]	37.5	25 (6.3)[4]	62.5 (43.8)[4]
Inorganic Phosphate	0	7.5 (0)[4]	7.5 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 2 vials (20 mL) Addamel N or 2 vials (20 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	2 vials Cernevit or 2 vials Soluvit + 2 vials Vitalipid
Glutamine	375 mL Dipeptiven
Fish Oil (min. and max. addition):	63 mL – 188 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

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OLIMEL N7E 1000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
7	1140	960	140	40

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	35	$Na^+ + K^+$ = 235 (75)[2]	$Na^+ + K+$ = 300 (140)[2]
Potassium	30		
Magnesium	4	1.6	5.6
Calcium	3.5	1.5 (0)[2]	5 (3.5)[2]
Organic Phosphate[3]	15	10 (2.5)[4]	25 (17.5)[4]
Inorganic Phosphate	0	3 (0)[4]	3 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 1 vial (10 mL) Addamel N or 1 vial (10 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	1 vial Cernevit or 1 vial Soluvit + 1 vial Vitalipid
Glutamine	150 mL Dipeptiven
Fish Oil (min. and max. addition):	25 mL – 75 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N7E 1500 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
10.5	1710	1440	210	60

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	53	$Na^+ + K^+$ = 352 (112)[2]	$Na^+ + K+$ = 450 (210)[2]
Potassium	45		
Magnesium	6	2.4	8.4
Calcium	5.3	2.2 (0)[2]	7.5 (5.3)[2]
Organic Phosphate[3]	22.5	15 (3.8)[4]	37.5 (26.3)[4]
Inorganic Phosphate	0	4.5 (0)[4]	4.5 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 1.5 vials (15 mL) Addamel N or 1.5 vials (15 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	1.5 vials Cernevit or 1.5 vials Soluvit + 1.5 vials Vitalipid
Glutamine	225 mL Dipeptiven
Fish Oil (min. and max. addition):	38 mL – 113 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N7E 2000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
14	2270	1920	280	80

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	70	$Na^+ + K^+$ = 470 (150)[2]	$Na^+ + K+$ = 600 (280)[2]
Potassium	60		
Magnesium	8	3.2	11.2
Calcium	7	3 (0)[2]	10 (7.0)[2]
Organic Phosphate[3]	30	20 (5)[4]	50 (35)[4]
Inorganic Phosphate	0	6 (0)[4]	6 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 2 vials (20 mL) Addamel N or 2 vials (20 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	2 vials Cernevit or 2 vials Soluvit + 2 vials Vitalipid
Glutamine	300 mL Dipeptiven
Fish Oil (min. and max. addition):	50 mL – 150 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N7 1000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
7	1140	960	140	40

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	0	$Na^+ + K^+$ = 300 (140)[2]	$Na^+ + K+$ = 300 (140)[2]
Potassium	0		
Magnesium	0	5.6	5.6
Calcium	0	5 (3.5)[2]	5 (3.5)[2]
Organic Phosphate[3]	3	22 (14.5)[4]	25 (17.5)[4]
Inorganic Phosphate	0	8 (0)[4]	8 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 1 vial (10 mL) Addamel N or 1 vial (10 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	1 vial Cernevit or 1 vial Soluvit + 1 vial Vitalipid
Glutamine	150 mL Dipeptiven
Fish Oil (min. and max. addition):	25 mL – 75 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N7 1500 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
10.5	1710	1440	210	60

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	0	$Na^+ + K^+$ = 450 (210)[2]	$Na^+ + K+$ = 450 (210)[2]
Potassium	0		
Magnesium	0	8.4	8.4
Calcium	0	7.5 (5.3)[2]	7.5 (5.3)[2]
Organic Phosphate[3]	4.5	33 (21.8)[4]	37.5 (26.3)[4]
Inorganic Phosphate	0	12 (0)[4]	12 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 1.5 vials (15 mL) Addamel N or 1.5 vials (15 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	1.5 vials Cernevit or 1.5 vials Soluvit + 1.5 vial Vitalipid
Glutamine	225 mL Dipeptiven
Fish Oil (min. and max. addition):	38 mL – 113 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N7 2000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
14	2270	1920	280	80

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	0	$Na^+ + K^+$ = 600 (280)[2]	$Na^+ + K+$ = 600 (280)[2]
Potassium	0		
Magnesium	0	11.2	11.2
Calcium	0	10 (7.0)[2]	10 (7.0)[2]
Organic Phosphate[3]	6	44 (29)[4]	50 (35)[4]
Inorganic Phosphate	0	16 (0)[4]	16 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 2 vials (20 mL) Addamel N or 2 vials (20 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	2 vials Cernevit or 2 vials Soluvit + 2 vials Vitalipid
Glutamine	300 mL Dipeptiven
Fish Oil (min. and max. addition):	50 mL – 150 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N9E 1000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
9	1070	840	110	40

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	35	$Na^+ + K^+$ = 235 (75)[2]	$Na^+ + K+$ = 300 (140)[2]
Potassium	30		
Magnesium	4	1.6	5.6
Calcium	3.5	1.5 (0)[2]	5 (3.5)[2]
Organic Phosphate[3]	15	10 (2.5)[4]	25 (17.5)[4]
Inorganic Phosphate	0	3 (0)[4]	3 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 1 vial (10 mL) Addamel N or 1 vial (10 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	1 vial Cernevit or 1 vial Soluvit + 1 vial Vitalipid
Glutamine	150 mL Dipeptiven
Fish Oil (min. and max. addition):	25 mL – 75 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N9E 1500 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
13.5	1600	1260	165	60

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	53	$Na^+ + K^+$ = 352 (112)[2]	$Na^+ + K+$ = 450 (210)[2]
Potassium	45		
Magnesium	6	2.4	8.4
Calcium	5.3	2.2 (0)[2]	7.5 (5.3)[2]
Organic Phosphate[3]	22.5	15 (3.8)[4]	37.5 (26.3)[4]
Inorganic Phosphate	0	4.5 (0)[4]	4.5 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 1.5 vials (15 mL) Addamel N or 1.5 vials (15 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	1.5 vials Cernevit or 1.5 vials Soluvit + 1.5 vials Vitalipid
Glutamine	225 mL Dipeptiven
Fish Oil (min. and max. addition):	38 mL – 113 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N9E 2000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
18	2140	1680	220	80

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	70	$Na^+ + K^+$ = 470 (150)[2]	$Na^+ + K+$ = 600 (280)[2]
Potassium	60		
Magnesium	8	3.2	11.2
Calcium	7	3 (0)[2]	10 (7.0)[2]
Organic Phosphate[3]	30	20 (5)[4]	50 (35)[4]
Inorganic Phosphate	0	6 (0)[4]	6 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 2 vials (20 mL) Addamel N or 2 vials (20 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	2 vials Cernevit or 2 vials Soluvit + 2 vials Vitalipid
Glutamine	300 mL Dipeptiven
Fish Oil (min. and max. addition):	50 mL – 150 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N9 1000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
9	1070	840	110	40

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	0	$Na^+ + K^+$ = 300 (140)[2]	$Na^+ + K+$ = 300 (140)[2]
Potassium	0		
Magnesium	0	5.6	5.6
Calcium	0	5 (3.5)[2]	5 (3.5)[2]
Organic Phosphate[3]	3	22 (14.5)[4]	25 (17.5)[4]
Inorganic Phosphate	0	8 (0)[4]	8 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 1 vial (10 mL) Addamel N or 1 vial (10 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	1 vial Cernevit or 1 vial Soluvit + 1 vial Vitalipid
Glutamine	150 mL Dipeptiven
Fish Oil (min. and max. addition):	25 mL – 75 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N9 1500 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
13.5	1600	1260	165	60

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	0	$Na^+ + K^+$ = 450 (210)[2]	$Na^+ + K+$ = 450 (210)[2]
Potassium	0		
Magnesium	0	8.4	8.4
Calcium	0	7.5 (5.3)[2]	7.5 (5.3)[2]
Organic Phosphate[3]	4.5	33 (21.8)[4]	37.5 (26.3)[4]
Inorganic Phosphate	0	12 (0)[4]	12 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 1.5 vials (15 mL) Addamel N or 1.5 vials (15 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	1.5 vials Cernevit or 1.5 vials Soluvit + 1.5 vials Vitalipid
Glutamine	225 mL Dipeptiven
Fish Oil (min. and max. addition):	38 mL – 113 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N9 2000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
18	2140	1680	220	80

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	0	$Na^+ + K^+$ = 600 (280)[2]	$Na^+ + K+$ = 600 (280)[2]
Potassium	0		
Magnesium	0	11.2	11.2
Calcium	0	10 (7.0)[2]	10 (7.0)[2]
Organic Phosphate[3]	6	44 (29)[4]	50 (35)[4]
Inorganic Phosphate	0	16 (0)[4]	16 (0)[4]

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (20 mL) Nutryelt[6] or 2 vials (20 mL) Addaven[6] or 2 vials (20 mL) Addamel N or 2 vials (20 mL) Tracutil
Additional Trace Elements[5]	20 mg Zinc 500 µg Selenium
Vitamins	2 vials Cernevit or 2 vials Soluvit + 2 vial Vitalipid
Glutamine	300 mL Dipeptiven
Fish Oil (min. and max. addition):	50 mL – 150 mL Omegaven

*Each of the above additions can be added alone or in combination with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in brackets must be used if inorganic phosphate or Omegaven are added to the bag.
3. Further addition as Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
4. Values in brackets must be used if Omegaven is added to the bag.
5. Addition of Zn and Se not tested in presence of Addamel N, Tracutil, Dipeptiven or Omegaven.
6. Nutryelt/Addaven not tested in presence of Dipeptiven or Omegaven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N12E 650 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
7.8	620	420	47.7	22.8

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	22.8	$Na^+ + K^+$ = 152.7	$Na^+ + K+$ = 195
Potassium	19.5		
Magnesium	2.6	7.8 (1)[2]	10.4 (3.6)[2]
Calcium	2.3	4.9 (1)[2]	7.2 (3.3)[2]
Organic Phosphate[3]	9.5	10 (0)[3]	19.5 (9.5)[3]
Inorganic Phosphate	0	5.0	5.0

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (1 vial)[4] Nutryelt or 2 vials (1 vial)[4] Addaven or 1 vial Tracutil[10]
Additional Trace Elements	20 mg Zinc[5] 500 µg Selenium[5]
	100 mg Iron**[6]
Vitamins	2 vials (1 vial)[7] Cernevit 2 vials (1 vial)[7] Soluvit + 2 vials (1 vial)[7] Vitalipid adult or
	1 vial Konakion[8] 100 mg Thiamine[8]
Glutamine	150 mL Dipeptiven[9]

*Each of the above additions can be added alone or in combination with each other.
** Iron added as Fercayl (complex of iron hydroxide with dextran).

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in bracket must be used if inorganic phosphate, Iron, Tracutil, Vitamin K, Thiamine or Dipeptiven is added.
3. 2.6 mmol/L are coming from the lipid emulsion of OLIMEL N12. Values in bracket must be used if Inorganic Phosphate is added to the bag.
4. Values in bracket must be used if Dipeptiven is added to the bag.
5. Zinc and Selenium should not be added if additional Iron is included.
6. Additional Iron should not be added if Zinc, Selenium, Konakion and Thiamine, Dipeptiven or Tracutil are included.
7. Values in bracket must be used if Konakion and Thiamine, Dipeptiven, Tracutil or Iron are added to the bag.
8. Konakion and Thiamine should not be added if Iron is included.
9. Dipeptiven should not be added if Iron is included.
10. Not in presence of Vitamin K, Thiamine and Dipeptiven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N12E 1000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
12	950	640	73.3	35

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	35	$Na^+ + K^+ = 235$	$Na^+ + K^+ = 300$
Potassium	30		
Magnesium	4	12 (1.6)[2]	16 (5.6)[2]
Calcium	3.5	7.5 (1.5)[2]	11 (5.0)[2]
Organic Phosphate[3]	15	15 (0)[3]	30 (15)[3]
Inorganic Phosphate	0	7.5	7.5

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (1 vial)[4] Nutryelt or 2 vials (1 vial)[4] Addaven or 1 vial Tracutil[10]
Additional Trace Elements	20 mg Zinc[5] 500 µg Selenium[5]
	100 mg Iron**[6]
Vitamins	2 vials (1 vial)[7] Cernevit 2 vials (1 vial)[7] Soluvit + 2 vials (1 vial)[7] Vitalipid adult or
	1 vial Konakion[8] 100 mg Thiamine[8]
Glutamine	150 mL Dipeptiven[9]

*Each of the above additions can be added alone or in combination with each other.
** Iron added as Fercayl (complex of iron hydroxide with dextran).

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in bracket must be used if inorganic phosphate, Iron, Tracutil, Vitamin K, Thiamine or Dipeptiven is added.
3. 2.6 mmol/L are coming from the lipid emulsion of OLIMEL N12. Values in bracket must be used if Inorganic Phosphate is added to the bag.
4. Values in bracket must be used if Dipeptiven is added to the bag.
5. Zinc and Selenium should not be added if additional Iron is included.
6. Additional Iron should not be added if Zinc, Selenium, Konakion and Thiamine, Dipeptiven or Tracutil are included.
7. Values in bracket must be used if Konakion and Thiamine, Dipeptiven, Tracutil or Iron are added to the bag.
8. Konakion and Thiamine should not be added if Iron is included.
9. Dipeptiven should not be added if Iron is included.
10. Not in presence of Vitamin K, Thiamine and Dipeptiven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N12E 1500 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
18	1420	960	110	52.5

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	52.5	$Na^+ + K^+ = 352.5$	$Na^+ + K^+ = 450$
Potassium	45		
Magnesium	6	18 (2.4)[2]	24 (8.4)[2]
Calcium	5.3	11.2 (2.2)[2]	16.5 (7.5)[2]
Organic Phosphate[3]	21.9	23.1 (0)[3]	45 (21.9)[3]
Inorganic Phosphate	0	11.3	11.3

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (1 vial)[4] Nutryelt or 2 vials (1 vial)[4] Addaven or 1 vial Tracutil[10]
Additional Trace Elements	20 mg Zinc[5] 500 µg Selenium[5]
	100 mg Iron**[6]
Vitamins	2 vials (1 vial)[7] Cernevit 2 vials (1 vial)[7] Soluvit + 2 vials (1 vial)[7] Vitalipid adult or
	1 vial Konakion[8] 100 mg Thiamine[8]
Glutamine	225 mL Dipeptiven[9]

*Each of the above additions can be added alone or in combination with each other.
** Iron added as Fercayl (complex of iron hydroxide with dextran).

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in bracket must be used if inorganic phosphate, Iron, Tracutil, Vitamin K, Thiamine or Dipeptiven is added.
3. 2.6 mmol/L are coming from the lipid emulsion of OLIMEL N12. Values in bracket must be used if Inorganic Phosphate is added to the bag.
4. Values in bracket must be used if Dipeptiven is added to the bag.
5. Zinc and Selenium should not be added if additional Iron is included.
6. Additional Iron should not be added if Zinc, Selenium, Konakion and Thiamine, Dipeptiven or Tracutil are included.
7. Values in bracket must be used if Konakion and Thiamine, Dipeptiven, Tracutil or Iron are added to the bag.
8. Konakion and Thiamine should not be added if Iron is included.
9. Dipeptiven should not be added if Iron is included.
10. Not in presence of Vitamin K, Thiamine and Dipeptiven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N12E 2000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
24	1900	1280	146.7	70

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	70	$Na^+ + K^+ = 470$	$Na^+ + K^+ = 600$
Potassium	60		
Magnesium	8	24 (3.2)[2]	32 (11.2)[2]
Calcium	7	15 (3.0)[2]	22 (10)[2]
Organic Phosphate[3]	29.2	30.8 (0)[3]	60 (29.2)[3]
Inorganic Phosphate	0	15.4	15.4

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (1 vial)[4] Nutryelt or 2 vials (1 vial)[4] Addaven or 1 vial Tracutil[10]
Additional Trace Elements	20 mg Zinc[5] 500 µg Selenium[5]
	100 mg Iron**[6]
Vitamins	2 vials (1 vial)[7] Cernevit 2 vials (1 vial)[7] Soluvit + 2 vials (1 vial)[7] Vitalipid adult or
	1 vial Konakion[8] 100 mg Thiamine[8]
Glutamine	300 mL Dipeptiven[9]

*Each of the above additions can be added alone or in combination with each other.
** Iron added as Fercayl (complex of iron hydroxide with dextran).

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in bracket must be used if inorganic phosphate, Iron, Tracutil, Vitamin K, Thiamine or Dipeptiven is added.
3. 2.6 mmol/L are coming from the lipid emulsion of OLIMEL N12. Values in bracket must be used if Inorganic Phosphate is added to the bag.
4. Values in bracket must be used if Dipeptiven is added to the bag.
5. Zinc and Selenium should not be added if additional Iron is included.
6. Additional Iron should not be added if Zinc, Selenium, Konakion and Thiamine, Dipeptiven or Tracutil are included.
7. Values in bracket must be used if Konakion and Thiamine, Dipeptiven, Tracutil or Iron are added to the bag.
8. Konakion and Thiamine should not be added if Iron is included.
9. Dipeptiven should not be added if Iron is included.
10. Not in presence of Vitamin K, Thiamine and Dipeptiven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N12 650 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
7.8	620	420	47.7	22.8

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	0	$Na^+ + K^+ = 195$	$Na^+ + K^+ = 195$
Potassium	0		
Magnesium	0	10.4 (3.6)[2]	10.4 (3.6)[2]
Calcium	0	7.2 (3.3)[2]	7.2 (3.3)[2]
Organic Phosphate[3]	1.7	17.8 (0)[3]	19.5 (1.7)[3]
Inorganic Phosphate	0	8.9	8.9

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (1 vial)[4] Nutryelt or 2 vials (1 vial)[4] Addaven or 1 vial Tracutil[10]
Additional Trace Elements	20 mg Zinc[5] 500 µg Selenium[5]
	100 mg Iron**[6]
Vitamins	2 vials (1 vial)[7] Cernevit 2 vials (1 vial)[7] Soluvit + 2 vials (1 vial)[7] Vitalipid adult or
	1 vial Konakion[8] 100 mg Thiamine[8]
Glutamine	150 mL Dipeptiven[9]

*Each of the above additions can be added alone or in combination with each other.
** Iron added as Fercayl (complex of iron hydroxide with dextran).

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in bracket must be used if inorganic phosphate, Iron, Tracutil, Vitamin K, Thiamine or Dipeptiven is added.
3. 2.6 mmol/L are coming from the lipid emulsion of OLIMEL N12. Values in bracket must be used if Inorganic Phosphate is added to the bag.
4. Values in bracket must be used if Dipeptiven is added to the bag.
5. Zinc and Selenium should not be added if additional Iron is included.
6. Additional Iron should not be added if Zinc, Selenium, Konakion and Thiamine, Dipeptiven or Tracutil are included.
7. Values in bracket must be used if Konakion and Thiamine, Dipeptiven, Tracutil or Iron are added to the bag.
8. Konakion and Thiamine should not be added if Iron is included.
9. Dipeptiven should not be added if Iron is included.
10. Not in presence of Vitamin K, Thiamine and Dipeptiven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N12 1000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
12	950	640	73.3	35

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	0	$Na^+ + K^+ = 300$	$Na^+ + K^+ = 300$
Potassium	0		
Magnesium	0	16 (5.6)[2]	16 (5.6)[2]
Calcium	0	11 (5.0)[2]	11 (5.0)[2]
Organic Phosphate[3]	2.6	27.4 (0)[3]	30 (2.6)[3]
Inorganic Phosphate	0	13.7	13.7

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (1 vial)[4] Nutryelt or 2 vials (1 vial)[4] Addaven or 1 vial Tracutil[10]
Additional Trace Elements	20 mg Zinc[5] 500 µg Selenium[5]
	100 mg Iron**[6]
Vitamins	2 vials (1 vial)[7] Cernevit 2 vials (1 vial)[7] Soluvit + 2 vials (1 vial)[7] Vitalipid adult or
	1 vial Konakion[8] 100 mg Thiamine[8]
Glutamine	150 mL Dipeptiven[9]

*Each of the above additions can be added alone or in combination with each other.
** Iron added as Fercayl (complex of iron hydroxide with dextran).

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in bracket must be used if inorganic phosphate, Iron, Tracutil, Vitamin K, Thiamine or Dipeptiven is added.
3. 2.6 mmol/L are coming from the lipid emulsion of OLIMEL N12. Values in bracket must be used if Inorganic Phosphate is added to the bag.
4. Values in bracket must be used if Dipeptiven is added to the bag.
5. Zinc and Selenium should not be added if additional Iron is included.
6. Additional Iron should not be added if Zinc, Selenium, Konakion and Thiamine, Dipeptiven or Tracutil are included.
7. Values in bracket must be used if Konakion and Thiamine, Dipeptiven, Tracutil or Iron are added to the bag.
8. Konakion and Thiamine should not be added if Iron is included.
9. Dipeptiven should not be added if Iron is included.
10. Not in presence of Vitamin K, Thiamine and Dipeptiven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N12 1500 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
18	1420	960	110	52.5

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	0	$Na^+ + K^+ = 450$	$Na^+ + K^+ = 450$
Potassium	0		
Magnesium	0	24 (8.4)[2]	24 (8.4)[2]
Calcium	0	16.5 (7.5)[2]	16.5 (7.5)[2]
Organic Phosphate[3]	3.9	41.1 (0)[3]	45 (3.9)[3]
Inorganic Phosphate	0	20.6	20.6

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (1 vial)[4] Nutryelt or 2 vials (1 vial)[4] Addaven or 1 vial Tracutil[10]
Additional Trace Elements	20 mg Zinc[5] 500 µg Selenium[5]
	100 mg Iron**[6]
Vitamins	2 vials (1 vial)[7] Cernevit 2 vials (1 vial)[7] Soluvit + 2 vials (1 vial)[7] Vitalipid adult or
	1 vial Konakion[8] 100 mg Thiamine[8]
Glutamine	225 mL Dipeptiven[9]

*Each of the above additions can be added alone or in combination with each other.
** Iron added as Fercayl (complex of iron hydroxide with dextran).

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in bracket must be used if inorganic phosphate, Iron, Tracutil, Vitamin K, Thiamine or Dipeptiven is added.
3. 2.6 mmol/L are coming from the lipid emulsion of OLIMEL N12. Values in bracket must be used if Inorganic Phosphate is added to the bag.
4. Values in bracket must be used if Dipeptiven is added to the bag.
5. Zinc and Selenium should not be added if additional Iron is included.
6. Additional Iron should not be added if Zinc, Selenium, Konakion and Thiamine, Dipeptiven or Tracutil are included.
7. Values in bracket must be used if Konakion and Thiamine, Dipeptiven, Tracutil or Iron are added to the bag.
8. Konakion and Thiamine should not be added if Iron is included.
9. Dipeptiven should not be added if Iron is included.
10. Not in presence of Vitamin K, Thiamine and Dipeptiven.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OLIMEL N12 2000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
24	1900	1280	146.7	70

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	0	$Na^+ + K^+ = 600$	$Na^+ + K^+ = 600$
Potassium	0		
Magnesium	0	32 (11.2)[2]	32 (11.2)[2]
Calcium	0	22 (10)[2]	22 (10)[2]
Organic Phosphate[3]	5.2	54.8 (0)[3]	60 (5.2)[3]
Inorganic Phosphate	0	27.4	27.4

Other possible additions: Maximum level per bag*	
Trace Elements	2 vials (1 vial)[4] Nutryelt or 2 vials (1 vial)[4] Addaven or 1 vial Tracutil[10]
Additional Trace Elements	20 mg Zinc[5] 500 µg Selenium[5]
	100 mg Iron**[6]
Vitamins	2 vials (1 vial)[7] Cernevit 2 vials (1 vial)[7] Soluvit + 2 vials (1 vial)[7] Vitalipid adult or
	1 vial Konakion[8] 100 mg Thiamine[8]
Glutamine	300 mL Dipeptiven[9]

*Each of the above additions can be added alone or in combination with each other.
** Iron added as Fercayl (complex of iron hydroxide with dextran).

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Values in bracket must be used if inorganic phosphate, Iron, Tracutil, Vitamin K, Thiamine or Dipeptiven is added.
3. 2.6 mmol/L are coming from the lipid emulsion of OLIMEL N12. Values in bracket must be used if Inorganic Phosphate is added to the bag.
4. Values in bracket must be used if Dipeptiven is added to the bag.
5. Zinc and Selenium should not be added if additional Iron is included.
6. Additional Iron should not be added if Zinc, Selenium, Konakion and Thiamine, Dipeptiven or Tracutil are included.
7. Values in bracket must be used if Konakion and Thiamine, Dipeptiven, Tracutil or Iron are added to the bag.
8. Konakion and Thiamine should not be added if Iron is included.
9. Dipeptiven should not be added if Iron is included.
10. Not in presence of Vitamin K, Thiamine and Dipeptiven

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OliClinomel / Clinimix / Amino Acids / Vitamins & TE/Nutriflex / Kabiven / SmofKabiven

OliClinomel N4-550E 1000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
3.6	610	520	80	20

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	21	$Na^+ + K^+$ = 263 (103)*	$Na^+ + K+$ = 300 (140)*
Potassium	16		
Magnesium	2.2	3.4 (3.4)*	5.6 (5.6)*
Calcium	2	3 (1)*	5 (3)*
Organic Phosphate[2]	8.5	15 (7.5)*	23.5 (16)*
Inorganic Phosphate	0	0	0

Other possible additions: Maximum level per bag**	
Trace Elements	1 vial (10 mL) Nutryelt or 1 vial (10 mL) Addaven or 1 vial (10 mL) Addamel N or 1 vial (10 mL) Tracutil
Additional Trace Elements	10 mg Zinc 100 µg Selenium
Vitamins[3]	1 vial Cernevit or 1 vial Soluvit + 1 vial Vitalipid
Glutamine	150 mL Dipeptiven
Fish Oil (min. and max. addition):	25 mL – 75 mL Omegaven

*The values in brackets must be used if Omegaven is added to the bag.
**Each of the above additions can be added alone or in combinations with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Further addition as Esafosfina, Glycophos, Phocytan, Sodium glycerophosphate. 1.5 mmol/L are coming from the lipid emulsion.
3. Vitamin C may oxidise during storage. It is recommended to infuse the vitamin-containing mixture within 72 hours after the preparation.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OliClinomel N4-550E 1500 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
5.4	910	780	120	30

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	32	$Na^+ + K^+$ = 394 (154)*	$Na^+ + K+$ = 450 (210)*
Potassium	24		
Magnesium	3.3	5.1 (5.1)*	8.4 (8.4)*
Calcium	3	4.5 (1.5)*	7.5 (4.5)*
Organic Phosphate[2]	12.8	15 (15)*	27.8 (27.8)*
Inorganic Phosphate	0	0	0

Other possible additions: Maximum level per bag**	
Trace Elements	1.5 vials (15 mL) Nutryelt or 1.5 vials (15 mL) Addaven or 1.5 vials (15 mL) Addamel N or 1.5 vials (15 mL) Tracutil
Additional Trace Elements	10 mg Zinc 100 µg Selenium
Vitamins[3]	1.5 vials Cernevit or 1.5 vials Soluvit + 1.5 vials Vitalipid
Glutamine	225 mL Dipeptiven
Fish Oil (min. and max. addition):	38 mL – 112 mL Omegaven

*The values in brackets must be used if Omegaven is added to the bag.
**Each of the above additions can be added alone or in combinations with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Further addition as Esafosfina, Glycophos, Phocytan, Sodium glycerophosphate. 1.5 mmol/L are coming from the lipid emulsion.
3. Vitamin C may oxidise during storage. It is recommended to infuse the vitamin-containing mixture within 72 hours after the preparation.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OliClinomel N4-550E 2000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
7.3	1215	1040	160	40

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	42	$Na^+ + K^+$ = 526 (206)*	$Na^+ + K+$ = 600 (280)*
Potassium	32		
Magnesium	4.4	6.8 (6.8)*	11.2 (11.2)*
Calcium	4	6 (2)*	10 (6)*
Organic Phosphate[2]	17	15 (15)*	32 (32)*
Inorganic Phosphate	0	0	0

Other possible additions: Maximum level per bag**	
Trace Elements	2 vials (20 mL) Nutryelt or 2 vials (20 mL) Addaven or 2 vials (20 mL) Addamel N or 2 vials (20 mL) Tracutil
Additional Trace Elements	10 mg Zinc 100 µg Selenium
Vitamins[3]	2 vials Cernevit or 2 vials Soluvit + 2 vials Vitalipid
Glutamine	300 mL Dipeptiven
Fish Oil (min. and max. addition):	50 mL – 150 mL Omegaven

*The values in brackets must be used if Omegaven is added to the bag.
**Each of the above additions can be added alone or in combinations with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Further addition as Esafosfina, Glycophos, Phocytan, Sodium glycerophosphate. 1.5 mmol/L are coming from the lipid emulsion.
3. Vitamin C may oxidise during storage. It is recommended to infuse the vitamin-containing mixture within 72 hours after the preparation.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OliClinomel N6-900E 1500 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
8.4	1525	1320	180	60

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	48	$Na^+ + K^+$ = 366 (126)*	$Na^+ + K+$ = 450 (210)*
Potassium	36		
Magnesium	3.3	5.1 (5.1)*	8.4 (8.4)*
Calcium	3	4.5 (1.5)*	7.5 (4.5)*
Organic Phosphate[2]	15	15 (15)*	30 (30)*
Inorganic Phosphate	0	0	0

Other possible additions: Maximum level per bag**	
Trace Elements	1.5 vials (15 mL) Nutryelt or 1.5 vials (15 mL) Addaven or 1.5 vials (15 mL) Addamel N or 1.5 vials (15 mL) Tracutil
Additional Trace Elements	10 mg Zinc 100 µg Selenium
Vitamins[3]	1.5 vials Cernevit or 1.5 vials Soluvit + 1.5 vials Vitalipid
Glutamine	225 mL Dipeptiven
Fish Oil (min. and max. addition):	38 mL – 112 mL Omegaven

*The values in brackets must be used if Omegaven is added to the bag.
**Each of the above additions can be added alone or in combinations with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Further addition as Esafosfina, Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
3. Vitamin C may oxidise during storage. It is recommended to infuse the vitamin-containing mixture within 72 hours after the preparation.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OliClinomel N6-900E 2000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
11.2	2030	1760	240	80

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	64	$Na^+ + K^+$ = 488 (168)*	$Na^+ + K+$ = 600 (280)*
Potassium	48		
Magnesium	4.4	6.8 (6.8)*	11.2 (11.2)*
Calcium	4	6 (2)*	10 (6)*
Organic Phosphate[2]	20	15 (15)*	35 (35)*
Inorganic Phosphate	0	0	0

Other possible additions: Maximum level per bag**	
Trace Elements	2 vials (20 mL) Nutryelt or 2 vials (20 mL) Addaven or 2 vials (20 mL) Addamel N or 2 vials (20 mL) Tracutil
Additional Trace Elements	10 mg Zinc 100 µg Selenium
Vitamins[3]	2 vials Cernevit or 2 vials Soluvit + 2 vials Vitalipid
Glutamine	300 mL Dipeptiven
Fish Oil (min. and max. addition):	50 mL – 150 mL Omegaven

*The values in brackets must be used if Omegaven is added to the bag.
**Each of the above additions can be added alone or in combinations with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Further addition as Esafosfina, Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
3. Vitamin C may oxidise during storage. It is recommended to infuse the vitamin-containing mixture within 72 hours after the preparation.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OliClinomel N7-1000E 1000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
6.6	1200	1040	160	40

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	32	$Na^+ + K^+$ = 244 (84)*	$Na^+ + K+$ = 300 (140)*
Potassium	24		
Magnesium	2.2	3.4 (3.4)*	5.6 (5.6)*
Calcium	2	3 (1)*	5 (3)*
Organic Phosphate[2]	10	15 (7.5)*	25 (17.5)*
Inorganic Phosphate	0	0	0

Other possible additions: Maximum level per bag**	
Trace Elements	1 vial (10 mL) Nutryelt or 1 vial (10 mL) Addaven or 1 vial (10 mL) Addamel N or 1 vial (10 mL) Tracutil
Additional Trace Elements	10 mg Zinc 100 µg Selenium
Vitamins[3]	1 vial Cernevit or 1 vial Soluvit + 1 vial Vitalipid
Glutamine	150 mL Dipeptiven
Fish Oil (min. and max. addition):	25 mL – 75 mL Omegaven

*The values in brackets must be used if Omegaven is added to the bag.
**Each of the above additions can be added alone or in combinations with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Further addition as Esafosfina, Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
3. Vitamin C may oxidise during storage. It is recommended to infuse the vitamin-containing mixture within 72 hours after the preparation.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OliClinomel N7-1000E 1500 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
9.9	1800	1560	240	60

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	48	$Na^+ + K^+$ = 366 (126)*	$Na^+ + K+$ = 450 (210)*
Potassium	36		
Magnesium	3.3	5.1 (5.1)*	8.4 (8.4)*
Calcium	3	4.5 (1.5)*	7.5 (4.5)*
Organic Phosphate[2]	15	15 (15)*	30 (30)*
Inorganic Phosphate	0	0	0

Other possible additions: Maximum level per bag**	
Trace Elements	1.5 vials (15 mL) Nutryelt or 1.5 vials (15 mL) Addaven or 1.5 vials (15 mL) Addamel N or 1.5 vials (15 mL) Tracutil
Additional Trace Elements	10 mg Zinc 100 µg Selenium
Vitamins[3]	1.5 vials Cernevit or 1.5 vials Soluvit + 1.5 vials Vitalipid
Glutamine	225 mL Dipeptiven
Fish Oil (min. and max. addition):	38 mL – 112 mL Omegaven

*The values in brackets must be used if Omegaven is added to the bag.
**Each of the above additions can be added alone or in combinations with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Further addition as Esafosfina, Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
3. Vitamin C may oxidise during storage. It is recommended to infuse the vitamin-containing mixture within 72 hours after the preparation.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

OliClinomel N7-1000E 2000 mL

Macronutrients per bag				
g Nitrogen	**Total kcals**	**Non-Protein kcals**	**g Glucose**	**g Lipid**
13.2	2400	2080	320	80

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	64	$Na^+ + K^+$ = 488 (168)*	$Na^+ + K+$ = 600 (280)*
Potassium	48		
Magnesium	4.4	6.8 (6.8)*	11.2 (11.2)*
Calcium	4	6 (2)*	10 (6)*
Organic Phosphate[2]	20	15 (15)*	35 (35)*
Inorganic Phosphate	0	0	0

Other possible additions: Maximum level per bag**	
Trace Elements	2 vials (20 mL) Nutryelt or 2 vials (20 mL) Addaven or 2 vials (20 mL) Addamel N or 2 vials (20 mL) Tracutil
Additional Trace Elements	10 mg Zinc 100 µg Selenium
Vitamins[3]	2 vials Cernevit or 2 vials Soluvit + 2 vials Vitalipid
Glutamine	300 mL Dipeptiven
Fish Oil (min. and max. addition):	50 mL – 150 mL Omegaven

*The values in brackets must be used if Omegaven is added to the bag.
**Each of the above additions can be added alone or in combinations with each other.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Further addition as Esafosfina, Glycophos, Phocytan, Sodium glycerophosphate. 3.0 mmol/L are coming from the lipid emulsion.
3. Vitamin C may oxidise during storage. It is recommended to infuse the vitamin-containing mixture within 72 hours after the preparation.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

Clinimix N12G20/N14G30/N17G35 1000 mL

without electrolytes
(+ 50-250 mL ClinOleic 20%)*

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	0	$Na^+ + K^+$ = 300 (175)*	$Na^+ + K+$ = 300 (175)*
Potassium	0		
Magnesium	0	15 (7)*	15 (7)*
Calcium	0	7.5 (3.8)*	7.5 (3.8)*
Inorganic or Organic Phosphate[2]	0	15	15

Other possible additions: Maximum level per bag	
Trace Elements**	1 vial Nutryelt (1/2 vial)[5] or 1 vial Addaven[6] (1/2 vial)[5] or 1/2 vial (5 mL) Addamel N or 1/2 vial (5 mL) Tracutil
Other Trace Elements[3]	10 mg Zinc 100 µg Selenium
Vitamins[4]	1 vial Cernevit or 1 vial Soluvit (+ 1 vial Vitalipid)*
ClinOleic 20% Lipid Emulsion	50-250 mL[7]

Physical shelf-life	**Refrigerated (+2°C - +8°C)**	**+ Room Temperature (<25°C)**
	7 days	48 hours[8]

*Values in brackets must be used if ClinOleic 20% lipid emulsion is added.
**It is not always possible to add full vial(s) of trace elements with full vial(s) of vitamins. For combination stability table, see end of Clinimix section.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Further addition as Glycophos, Phocytan, Na glycerophosphate.
3. Only tested in presence of Nutryelt/Addaven.
4. Vitamin C may oxidise during storage. It is recommended to infuse the vitamin-containing mixture within 72 hours after the preparation.
5. Values in brackets must be used if combined with 1 vial Soluvit or 1 vial Soluvit-Vitalipid.
6. Used if lipid emulsion is added and combined with 1 vial Cernevit.
7. If Addamel N or Tracutil used, lipid range would be 125-250 mL.
8. Storage at room temperature reduced to 24 hours if Addamel N or Tracutil is added.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

Clinimix N12G20/N14G30/N17G35 1500 mL

without electrolytes
[+ 75-375 mL ClinOleic 20%]*

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	0	$Na^+ + K^+$ = 450 (263)*	$Na^+ + K+$ = 450 (263)*
Potassium	0		
Magnesium	0	22.5 (10.5)*	22.5 (10.5)*
Calcium	0	11.3 (5.6)*	11.3 (5.6)*
Inorganic or Organic Phosphate[2]	0	23	23

Other possible additions: Maximum level per bag	
Trace Elements**	1.5 vials Nutryelt (3/4 vial)[5] or 1.5 vials Addaven[6] (3/4 vial)[5] or 3/4 vial (7.5 mL) Addamel N or 3/4 vial (7.5 mL) Tracutil
Other Trace Elements[3]	10 mg Zinc 100 µg Selenium
Vitamins[4]	1.5 vials Cernevit or 1.5 vials Soluvit (+ 1.5 vials Vitalipid)*
ClinOleic 20% Lipid Emulsion	75 to 375 mL[7]

Physical shelf-life	Refrigerated (+2°C - +8°C)	+ Room Temperature (<25°C)
	7 days	48 hours[8]

*Values in brackets must be used if ClinOleic 20% lipid emulsion is added.
**It is not always possible to add full vial(s) of trace elements with full vial(s) of vitamins. For combination stability table, see end of Clinimix section.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Further addition as Glycophos, Phocytan, Na glycerophosphate.
3. Only tested in presence of Nutryelt/Addaven.
4. Vitamin C may oxidise during storage. It is recommended to infuse the vitamin-containing mixture within 72 hours after the preparation.
5. Values in brackets must be used if combined with 1.5 vials Soluvit or 1.5 vials Soluvit-Vitalipid.
6. Used if lipid emulsion is added and combined with 1.5 vials Cernevit.
7. If Addamel N or Tracutil used, lipid range would be 188-375 mL.
8. Storage at room temperature reduced to 24 hours if Addamel N or Tracutil is added.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

Clinimix N12G20/N14G30/N17G35 2000 mL

without electrolytes
(+ 100-500 mL ClinOleic 20%)*

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	0	$Na^+ + K^+$ = 600 (350)*	$Na^+ + K^+$ = 600 (350)*
Potassium	0		
Magnesium	0	30 (14)*	30 (14)*
Calcium	0	15 (7.5)*	15 (7.5)*
Inorganic or Organic Phosphate[2]	0	30	30

Other possible additions: Maximum level per bag	
Trace Elements**	2 vials Nutryelt (1 vial)[5] or 2 vials Addaven[6] (1 vial)[5] or 1 vial (10 mL) Addamel N or 1 vial (10 mL) Tracutil
Other Trace Elements[3]	10 mg Zinc 100 µg Selenium
Vitamins[4]	2 vials Cernevit or 2 vials Soluvit (+ 2 vials Vitalipid)*
ClinOleic 20% Lipid Emulsion	100 to 500 mL[7]

Physcial shelf-life	**Refrigerated (+2°C - +8°C)**	**+ Room Temperature (<25°C)**
	7 days	48 hours[8]

*Values in brackets must be used if ClinOleic 20% lipid emulsion is added.
**It is not always possible to add full vial(s) of trace elements with full vial(s) of vitamins. For combination stability table, see end of Clinimix section.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Further addition as Glycophos, Phocytan, Na glycerophosphate.
3. Only tested in presence of Nutryelt/Addaven.
4. Vitamin C may oxidise during storage. It is recommended to infuse the vitamin-containing mixture within 72 hours after the preparation.
5. Values in brackets must be used if combined with 2 vials Soluvit or 2 vials Soluvit-Vitalipid.
6. Used if lipid emulsion is added and combined with 2 vials Cernevit.
7. If Addamel N or Tracutil used, lipid range would be 250-500 mL.
8. Storage at room temperature reduced to 24 hours if Addamel N or Tracutil is added.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

Clinimix N9G15E/N9G20E/N12G20E/N14G30E/N17G35E 1000 mL

with electrolytes (+ 50-250 mL ClinOleic 20%)*

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	35	$Na^+ + K^+$ = 235 (110)*	$Na^+ + K+$ = 300 (175)*
Potassium	30		
Magnesium	2.5	12.5 (4.5)*	15 (7)*
Calcium	2.3	5.2 (1.5)*	7.5 (3.8)*
Inorganic Phosphate[2]	15	0	15

Other possible additions: Maximum level per bag	
Trace Elements**	1 vial Nutryelt (1/2 vial)[4] or 1 vial Addaven[5] (1/2 vial)[4] or 1/2 vial (5 mL) Addamel N or 1/2 vial (5 mL) Tracutil
Other Trace Elements[2]	10 mg Zinc 100 µg Selenium
Vitamins[3]	1 vial Cernevit or 1 vial Soluvit (+ 1 vial Vitalipid)*
ClinOleic 20% Lipid Emulsion	50 to 250 mL[6]

Physical shelf-life	**Refrigerated (+2°C - +8°C)**	**+ Room Temperature (<25°C)**
	7 days	48 hours[7]

*Values in brackets must be used if ClinOleic 20% lipid emulsion is added.
**It is not always possible to add full vial(s) of trace elements with full vial(s) of vitamins. For combination stability table, see end of Clinimix section.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Only tested in presence of Nutryelt / Addaven.
3. Vitamin C may oxidise during storage. It is recommended to infuse the vitamin-containing mixture within 72 hours after the preparation.
4. Values in brackets must be used if combined with 1 vial Soluvit or 1 vial Soluvit-Vitalipid.
5. Used if lipid emulsion is added and combined with 1 vial Cernevit.
6. If Addamel N or Tracutil used, lipid range would be 125-250 mL.
7. Storage at room temperature reduced to 24 hours if Addamel N or Tracutil is added.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

Clinimix N9G15E/N9G20E/N12G20E/N14G30E/N17G35E 1500 mL

with electrolytes
(+ 75-375 mL ClinOleic 20%)*

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	53	$Na^+ + K^+$ = 352 (165)*	$Na^+ + K+$ = 450 (263)*
Potassium	45		
Magnesium	3.8	18.7 (6.7)*	22.5 (10.5)*
Calcium	3.4	7.9 (2.2)*	11.3 (5.6)*
Inorganic or Organic Phosphate[2]	23	0	23

Other possible additions: Maximum level per bag	
Trace Elements**	1.5 vials Nutryelt (3/4 vial)[4] or 1.5 vials Addaven[5] (3/4 vial)[4] or 3/4 vial (7.5 mL) Addamel N or 3/4 vial (7.5 mL) Tracutil
Other Trace Elements[2]	10 mg Zinc 100 µg Selenium
Vitamins[3]	1.5 vials Cernevit or 1.5 vials Soluvit (+ 1.5 vials Vitalipid)*
ClinOleic 20% Lipid Emulsion	75 to 375 mL[6]

Physical shelf-life	**Refrigerated (+2°C - +8°C)**	**+ Room Temperature (<25°C)**
	7 days	48 hours[7]

*Values in brackets must be used if ClinOleic 20% lipid emulsion is added.
**It is not always possible to add full vial(s) of trace elements with full vial(s) of vitamins. For combination stability table, see end of Clinimix section.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Only tested in presence of Nutryelt / Suppliven.
3. Vitamin C may oxidise during storage. It is recommended to infuse the vitamin-containing mixture within 72 hours after the preparation.
4. Values in brackets must be used if combined with 1.5 vials Soluvit or 1.5 vials Soluvit-Vitalipid.
5. Used if lipid emulsion is added and combined with 1.5 vials Cernevit.
6. If Addamel N or Tracutil used, lipid range would be 188-375 mL.
7. Storage at room temperature reduced to 24 hours if Addamel N or Tracutil is added.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

Clinimix N9G15E/N9G20E/N12G20E/N14G30E/N17G35E 2000 mL

with electrolytes
(+ 100-500 mL ClinOleic 20%)*

Electrolytes in mmol per bag[1]			
	Included level	**Maximum further addition**	**Maximum total level**
Sodium	70	$Na^+ + K^+$ = 470 (220)*	$Na^+ + K+$ = 600 (350)*
Potassium	60		
Magnesium	5	25 (9)*	30 (14)*
Calcium	4.5	10.5 (3)*	15 (7.5)*
Inorganic or Organic Phosphate[2]	30	0	30

Other possible additions: Maximum level per bag	
Trace Elements**	2 vials Nutryelt (1 vial)[4] or 2 vials Addaven[5] (1 vial)[4] or 1 vial (10 mL) Addamel N or 1 vial (10 mL) Tracutil
Other Trace Elements[2]	10 mg Zinc 100 µg Selenium
Vitamins[3]	2 vials Cernevit or 2 vials Soluvit (+ 2 vials Vitalipid)*
ClinOleic 20% Lipid Emulsion	100 to 500 mL[6]

Physical shelf-life	Refrigerated (+2°C - +8°C)	+ Room Temperature (<25°C)
	7 days	48 hours[7]

*Values in brackets must be used if ClinOleic 20% lipid emulsion is added.
**It is not always possible to add full vial(s) of trace elements with full vial(s) of vitamins. For combination stability table, see end of Clinimix section.

1. For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
2. Only tested in presence of Nutryelt/Addaven.
3. Vitamin C may oxidise during storage. It is recommended to infuse the vitamin-containing mixture within 72 hours after the preparation.
4. Values in brackets must be used if combined with 2 vials Soluvit or 2 vials Soluvit-Vitalipid.
5. Used if lipid emulsion is added and combined with 2 vials Cernevit.
6. If Addamel N or Tracutil used, lipid range would be 250-500 mL.
7. Storage at room temperature reduced to 24 hours if Addamel N or Tracutil is added.

Quantities of vitamins, trace elements and drugs tested and mentioned in this booklet were for stability purposes only. It does not represent clinical suggestions for additions. Please refer to respective SmPCs.

Clinimix Stable Combinations/Table

2-in-1 - 1000 mL

- If Soluvit = 1 vial, then 1/2 vial Nutryelt or 1/2 vial Addaven
- If Cernevit=1 vial, then 1 vial Nutryelt or 1/2 vial Addaven

Binary admixture	1000 mL	1500 mL	2000 mL
Nutryelt	1 vial	1 1/2 vials	2 vials
Cernevit	1 vial	1 1/2 vials	2 vials

Binary admixture	1000 mL	1500 mL	2000 mL
Nutryelt	1/2 vial	3/4 vial	1 vial
Soluvit	1 vial	1 1/2 vials	2 vials

Binary admixture	1000 mL	1500 mL	2000 mL
Addaven	1/2 vial	3/4 vial	1 vial
Cernevit or Soluvit	1 vial	1 1/2 vials	2 vials

3-in-1 (with Clinoleic) - 1000 mL

- If Soluvit/Vitalipid = 1 vial, then 1/2 vial Nutryelt or 1/2 vial Addaven
- If Cernevit=1 vial, then 1 vial Nutryelt or 1 vial Addaven

With Clinoleic	1000 mL	1500 mL	2000 mL
Nutryelt or Addaven	1 vial	1 1/2 vials	2 vials
Cernevit	1 vial	1 1/2 vials	2 vials

With Clinoleic	1000 mL	1500 mL	2000 mL
Nutryelt or Addaven	1/2 vial	3/4 vials	1 vial
Soluvit-Vitalipid	1 vial	1 1/2 vials	2 vials

Clinimix Unstable Combinations/Table

2-in-1 - 1000 mL

Binary admixture	1000 mL	1500 mL	2000 mL
Nutryelt	1 vial	1 1/2 vials	2 vials
Soluvit	1 vial	1 1/2 vials	2 vials

Binary admixture	1000 mL	1500 mL	2000 mL
Addaven	1 vial	1 1/2 vials	2 vials
Cernevit or Soluvit	1 vial	1 1/2 vials	2 vials

3-in-1 (with Clinoleic) - 1000 mL

With Clinoleic	1000 mL	1500 mL	2000 mL
Nutryelt or Addaven	1 vial	1 1/2 vials	2 vials
Soluvit-Vitalipid	1 vial	1 1/2 vials	2 vials

Aminomel 3-in-1

Component	Concentration Range	Unit
Nitrogen as Aminomel	3.0 - 8.0	g/L of final admixture
Glucose	40 - 180	
Lipid as ClinOleic 20%	20 - 40	
Sodium	0 - 120	mmol/L of final admixture
Potassium	0 - 60	
Magnesium	0 - 5	
Calcium	0 - 3	

Shelf-life of the admixtures	
Refrigerated (+2°C - +8°C)	60 days
+ Room Temperature (<25°C)	24 hours

For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.

Aminopad 2-in-1

Component	Concentration Range	Unit
Nitrogen as Aminopad	1.5 - 4.5	g/L of final admixture
Glucose	40 - 200	
Sodium	0 - 80	mmol/L of final admixture
Potassium	0 - 40	
Magnesium	0 - 5	
Calcium	0 - 20	
Organic phosphate	0 - 20	
Junyelt or Peditrace (10 mL)	1 vial	per litre of final admixture

Shelf-life of the admixtures	
Refrigerated (+2°C - +8°C)	90 days
+ Room Temperature (<25°C)	48 hours

For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.

Primene 2-in-1 (Low Nitrogen)

Component	Concentration Range	Unit
Nitrogen as Primene	0.5 - 1.5	g/L of final admixture
Glucose	55 - 115	
Sodium	0 - 34	mmol/L of final admixture
Potassium	0 - 29	
Magnesium	0 - 0.7	
Calcium	0 - 4	
Phosphate	0 - 2	
Zinc	0 - 4	µmol/L of final admixture
Iron	0 - 13.5	
Manganese	0 - 6.8	
Copper	0 - 2	
Fluoride	0 - 20	
Iodide	0 - 3	

Refrigerated (+2°C - +8°C)	30 days
+ Room Temperature (<25°C)	24 hours

For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.

Primene 2-in-1

Component	Concentration Range	Unit
Nitrogen as Primene	1.5 - 4.5	g/L of final admixture
Glucose	40 - 200	
Sodium	0 - 80	mmol/L of final admixture
Potassium	0 - 40	
Magnesium	0 - 5	
Calcium	0 - 30	
Organic Phosphate	0 - 30	
Junyelt or Peditrace (10 mL)	1 vial	per litre of final admixture

Shelf-life of the admixtures	
Refrigerated (+2°C - +8°C)	90 days
+ Room Temperature (<25°C)	48 hours

For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.

Primene 2-in-1 (High Nitrogen)

Component	Concentration Range	Unit
Nitrogen as Primene	5.0 - 7.7	g/L of final admixture
Glucose	40 - 240	
Sodium	0 - 200	mmol/L of final admixture
Potassium	0 - 200	
Magnesium	0 - 10	
Calcium	0 - 12	
Organic or inorganic (monobasic) phosphate	0 - 12	

Shelf-life of the admixtures	
Refrigerated (+2°C - +8°C)	30 days
+ Room Temperature (<25°C)	24 hours

For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.

Primene 3-in-1 (Low Calcium)

Component	Concentration Range	Unit
Nitrogen as Primene	1.5 - 3.8	g/L of final admixture
Glucose	40 - 200	
Lipid as ClinOleic 20%	20 - 40	
Sodium	0 - 35	mmol/L of final admixture
Potassium	0 - 35	
Magnesium	0 - 2.5	
Calcium as Gluconate	0 - 4.5	
Organic or inorganic (monobasic) phosphate	0 - 10	
Junyelt or Peditrace (10 mL)	up to 1 vial	per litre of final admixture

Shelf-life of the admixtures	
Refrigerated (+2°C - +8°C)	30 days
+ Room Temperature (<25°C)	24 hours

For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.

Primene 3-in-1 (High Calcium)

Component	Concentration Range	Unit
Nitrogen as Primene	1.5 - 3.8	g/L of final admixture
Glucose	40 - 200	
Lipid as ClinOleic 20%	20 - 40	
Sodium	0 - 35	mmol/L of final admixture
Potassium	0 - 35	
Magnesium	0 - 2.5	
Calcium as Gluconate	0 - 10	
Organic or inorganic (monobasic) phosphate	0 - 10	
Junyelt or Peditrace (10 mL)	up to 1 vial	per litre of final admixture

Shelf-life of the admixtures	
Refrigerated (+2°C - +8°C)	14 days*
+ Room Temperature (<25°C)	24 hours

For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.
* 30-days refrigerated shelf-life when lipid content is less than 30 g/L.

Synthamin 3-in-1 (Low Lipid)

Component	Concentration Range	Unit
Nitrogen as Synthamin Viaflex	3.0 - 8.0	g/L of final admixture
Glucose	25 - 170	
Lipid as ClinOleic 20%	16 - 29	
Sodium	0 - 150	mmol/L of final admixture
Potassium	0 - 150	
Magnesium	0 - 5.6	
Calcium	0 - 5	
Organic or inorganic (monobasic) phosphate	0 - 15	

Shelf-life of the admixtures	
Refrigerated (+2°C - +8°C)	30 days
+ Room Temperature (<25°C)	24 hours

For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.

Synthamin 3-in-1 (High Lipid)

Component	Concentration Range	Unit
Nitrogen as Synthamin Viaflex	2.7 - 8.0	g/L of final admixture
Glucose	23 - 161	
Lipid as ClinOleic 20%	29 - 65	
Sodium	0 - 150	mmol/L of final admixture
Potassium	0 - 150	
Magnesium	0 - 5.6	
Calcium	0 - 5	
Phosphate	*	
Additrace (10 mL)**	1 vial	per minimum 1.5L of final admixture

Shelf-life of the admixtures	
Refrigerated (+2°C - +8°C)	30 days
+ Room Temperature (<25°C)	24 hours

For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.

* The phosphate content is determined by the volume of Synthamin with electrolytes used and no further phosphate is added.
** Additrace should be only added to admixtures containing at least 4.5 g nitrogen per litre of final admixture.

Synthamin 3-in-1 (Diluted Regimen)

Component	Concentration Range	Unit
Nitrogen as Synthamin EF Viaflex	1.8 - 2.7	g/L of final admixture
Glucose	30 - 100	
Lipid as ClinOleic 20%	16 - 29	
Sodium	0 - 150	mmol/L of final admixture
Potassium	0 - 150	
Magnesium	0 - 5.6	
Calcium	0 - 5	
Organic or inorganic (monobasic) phosphate	0 - 10	

Shelf-life of the admixtures	
Refrigerated (+2°C - +8°C)	30 days
+ Room Temperature (<25°C)	24 hours

For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.

Compatibility of Vaminolact 2-in-1 after addition of Junyelt

Component	Concentration Range	Unit
Nitrogen as Vaminolact	1.5 - 4.5	g/L of final admixture
Glucose	40 - 200	
Sodium	0 - 80	mmol/L of final admixture
Potassium	0 - 40	
Magnesium	0 - 5	
Calcium	0 - 20	
Organic phosphate	0- - 20	
Junyelt (10 mL)	1 vial	per litre of final admixture

Shelf-life of the admixtures	
Refrigerated (+2°C - +8°C)	90 days
+ Room Temperature (<30°C)	48 hours

For calcium and magnesium multiply by 2 to obtain mEq. For sodium and potassium same value in mEq.

Cernevit compatibility with Additrace (Addamel) and Tracutil in various Perfusion Solutions (5% Glucose, 0.9% NaCl, 5% Glucion and 10% Glucion)

Diluent			Vitamin and Trace Element	Shelf Life of Admixture
Product	**Volume**	**Container**		
5% Glucose	**50 mL**	**Viaflo**	**1 vial Cernevit 1 vial TE***	None
0.9% NaCl	**100 mL**	**Viaflo**	**1 vial Cernevit 1 vial TE***	48 hours at 5°C + 4 hours at 25°C
5% Glucose	**100 mL**	**Viaflo**	**1 vial Cernevit 1 vial TE***	72 hours at 5°C + 4 hours at 25°C
5% Glucose	**1000 mL**	**Viaflo**	**1 vial Cernevit 1 vial TE***	None
0.9% NaCl	**1000 mL**	**Viaflo**	**1 vial Cernevit 1 vial TE***	None
5% Glucion	**1000 mL**	**Viaflo**	**1 vial Cernevit 1 vial TE***	72 hours at 5°C + 24 hours at 25°C
10% Glucion	**1000 mL**	**Viaflo**	**1 vial Cernevit 1 vial TE***	
0.9% NaCl + 6 mM Potassium Phosphate	**1000 mL**	**Viaflo**	**1 vial Cernevit 1 vial TE***	
5% Glucose + 6 mM Potassium Phosphate	**1000 mL**	**Viaflo**	**1 vial Cernevit 1 vial TE***	

*Trace Elements (TE) are either Additrace or Tracutil

Cernevit compatibility with Nutryelt in various Perfusion Solutions (5% Glucose, 0.9% NaCl and Plasma-Lyte 148)

Diluent			Vitamin and Trace Element	Shelf Life of Admixture
Product	**Volume**	**Container**		
5% Glucose	**100 mL**	**Viaflex**	**Nutryelt (up to 2 vials)**	24 h at 25°C
5% Glucose	**100 mL**	**Viaflex**	**Nutryelt (1 vial)** **Cernevit (1 vial)**	None
5% Glucose	**100 mL**	**Viaflex**	**Cernevit (1 vial)**	24 h at 25°C
0.9% NaCl	**100 mL**	**Viaflo**	**Nutryelt (1 vial)** **Cernevit (1 vial)**	24 h at 25°C
0.9% NaCl	**100 mL**	**Viaflo**	**Cernevit (1 vial)**	24 h at 25°C
0.9% NaCl	**100 mL**	**Viaflex**	**Nutryelt (up to 2 vials)**	24 h at 25°C
0.9% NaCl	**100 mL**	**Viaflex**	**Nutryelt (1 vial)** **Cernevit (1 vial)**	None
0.9% NaCl	**100 mL**	**Viaflex**	**Cernevit (1 vial)**	24 h at 25°C
Plasma-Lyte 148	**500 mL**	**Viaflex**	**Nutryelt (up to 2 vials)**	24 h at 25°C
Plasma-Lyte 148	**500 mL**	**Viaflex**	**Nutryelt (1 vial)** **Cernevit (1 vial)**	None
Plasma-Lyte 148	**500 mL**	**Viaflex**	**Cernevit (1 vial)**	None

Vitamins compatibility with Junyelt in various Perfusion Solutions (5% Glucose, 0.9% NaCl and Plasma-Lyte 148)

Diluent			Vitamin and Trace Element	Shelf Life of Admixture
Product	**Volume**	**Container**		
5% Glucose	**100 mL**	**Viaflo**	**Junyelt (up to 2 vials)**	24 h at 30°C
5% Glucose	**100 mL**	**Viaflo**	**Junyelt (1 vial)** **Soluvit (1 vial)**	None
5% Glucose	**100 mL**	**Viaflo**	**Soluvit (1 vial)**	None
5% Glucose	**100 mL**	**Viaflo**	**Junyelt (2 vials)** **Cernevit (1 vial)**	None
5% Glucose	**100 mL**	**Viaflo**	**Cernevit (1 vial)**	24 h at 30°C
5% Glucose	**100 mL**	**Viaflo**	**Junyelt (1 vial)** **Soluvit (1 vial)** **Vitalipid (4 vials)**	None
5% Glucose	**100 mL**	**Viaflo**	**Vitalipid (4 vials)**	24 h at 30°C
0.9% NaCl	**100 mL**	**Viaflo**	**Junyelt (up to 2 vials)**	24 h at 30°C
0.9% NaCl	**100 mL**	**Viaflo**	**Junyelt (1 vial)** **Soluvit (1 vial)**	None
0.9% NaCl	**100 mL**	**Viaflo**	**Soluvit (1 vial)**	None
0.9% NaCl	**100 mL**	**Viaflo**	**Junyelt (2 vials)** **Cernevit (1 vial)**	None
0.9% NaCl	**100 mL**	**Viaflo**	**Cernevit (1 vial)**	24 h at 30°C
0.9% NaCl	**100 mL**	**Viaflo**	**Junyelt (1 vial)** **Soluvit (1 vial)** **Vitalipid (4 vials)**	None
0.9% NaCl	**100 mL**	**Viaflo**	**Vitalipid (4 vials)**	24 h at 30°C
Plasma-Lyte 148	**500 mL**	**Viaflo**	**Junyelt (up to 2 vials)**	24 h at 30°C
Plasma-Lyte 148	**500 mL**	**Viaflo**	**Junyelt (1 vial)** **Soluvit (1 vial)**	None
Plasma-Lyte 148	**500 mL**	**Viaflo**	**Soluvit (1 vial)**	None
Plasma-Lyte 148	**500 mL**	**Viaflo**	**Junyelt (1 vial)** **Soluvit (1 vial)** **Vitalipid (4 vials)**	24 h at 30°C
Plasma-Lyte 148	**500 mL**	**Viaflo**	**Vitalipid (4 vials)**	24 h at 30°C

Compatibility table of Nutriflex Omega after addition of Nutryelt

According to their commercial brochure, B. Braun provides the following compatibility table for their 3-chamber bag including addition of Fresenius Kabi trace element Addamel N (or Additrace) and Cernevit, with a physical compatibility of 7 days under refrigerated conditions (2-8°C) plus 2 days at room temperature.

	NUTRIFLEX OMEGA PLUS			NUTRIFLEX OMEGA SPECIAL			
	1250 mL	**1875 mL**	**2500 mL**	**625 mL**	**1250 mL**	**1875 mL**	**2500 mL**
Max additions allowed (mmol)							
Sodium + Potassium	165	247.5	330	68	136	204	272
Calcium*	4.0	6.0	8.0	1.4	2.7	4.0	5.4
Magnesium	8.0	12.0	16.0	3.4	6.7	10.0	13.4
Phosphate**	10	15	20	2.5	5	7.5	10
Max content (mmol)							
Sodium + Potassium	250	375	500	125	250	375	500
Calcium	8.0	12.0	16.0	4.0	8.0	12.0	16.0
Magnesium	12.0	18.0	24.0	6.0	12.0	18.0	24.0
Phosphate	25	37.5	50	12.5	25	37.5	50
Max additions other additives							
Cernevit	1 vial						
Nutryelt or Addamel N	10 mL						

* as calcium gluconate 10%
** as inorganic phosphate (sodium or potassium dihydrogen phosphate)

Compatibility table of Nutriflex Lipid after addition of Nutryelt

According to their commercial brochure, B. Braun provides the following compatibility table for their 3-chamber bag including addition of Fresenius Kabi trace element Addamel N (or Additrace) or Tracel (or Suppliven, or Addaven) and Cernevit, with a physical compatibility of 4 days under refrigerated conditions (2-8°C) plus 48 hours at room temperature.

	NUTRIFLEX LIPID PERI			NUTRIFLEX LIPID PLUS			NUTRIFLEX LIPID SPECIAL		
	1250 mL	1875 mL	2500 mL	1250 mL	1875 mL	2500 mL	1250 mL	1875 mL	2500 mL
Max additions allowed (mmol)									
Sodium + Potassium	160	240	320	155	232.5	310	133	199.5	266
Calcium	7	10.5	14	6	9	12	4.7	7	9.4
Magnesium	7	10.5	14	6	9	12	4.7	7	9.4
Phosphate*	20	30	40	20	30	40	20	30	40
Max content (mmol)									
Sodium + Potassium	240	360	480	240	360	480	247	370.5	494
Calcium	10	15	20	10	15	20	10	15	20
Magnesium	10	15	20	10	15	20	10	15	20
Phosphate	27.5	41.25	55	35	52.5	70	40	60	80
Max additions other additives									
Cernevit	1 vial								
Nutryelt or Addamel N or Tracel	10 mL								

* as calcium gluconate 10%
** as inorganic phosphate (sodium or potassium dihydrogen phosphate)

Compatibility table of Kabiven/Kabiven Peripheral after addition of Nutryelt

According to their commercial brochure, Fresenius Kabi provides the following compatibility table for their 3-chamber bag including addition of their trace element and vitamin solutions, with a physical compatibility of 6 days under refrigerated conditions (2-8°C) plus 24 hours at room temperature.

	KABIVEN				KABIVEN Peripheral		
	1026 mL	**1540 mL**	**2053 mL**	**2566 mL**	**1440 mL**	**1920 mL**	**2400 mL**
Nutryelt or Tracel	0-10 mL				0-10 mL		
Cernevit or Soluvit N/Vitalipid N	1 vial or 0-10 mL/0-10 mL				1 vial or 0-10 mL/0-10 mL		
Upper electrolyte limits per bag (mmol)							
Sodium	154	231	308	385	216	288	360
Potassium	154	231	308	385	216	288	300
Magnesium	5	8	10	13	7.2	9.6	12
Calcium	5	8	10	13	7.2	9.6	12
Phosphate*	15	23	31	38	22	29	36

* Same limits when addition of organic or inorganic phosphate. Includes the amount contained within the lipid source.

Compatibility table of SmofKabiven/SmofKabiven Peripheral after addition of Nutryelt

According to their commercial brochure, Fresenius Kabi provides the following compatibility table for their 3-chamber bag including addition of their trace element and vitamin solutions, with a physical compatibility of 7 days under refrigerated conditions (2-8°C) plus 24 hours at room temperature.

	SMOFKABIVEN				SMOFKABIVEN Peripheral		
	986 mL	**1477 mL**	**1970 mL**	**2463 mL**	**1206 mL**	**1448 mL**	**1904 mL**
Nutryelt or Tracel	0-10 mL				0-10 mL		
Cernevit or Soluvit N/Vitalipid N	1 vial or 0-10 mL/0-10 mL				1 vial or 0-10 mL/0-10 mL		
Upper electrolyte limits per bag (mmol)							
Sodium	150	225	300	375	180	225	300
Potassium	150	225	300	375	180	225	300
Magnesium	5	7.5	10	12.5	6	7.5	10
Calcium	5	7.5	10	12.5	6	7.5	10
Phosphate*	15	22.5	30	37.5	18	22.5	30

* Same limits when addition of organic or inorganic phosphate. Includes the amount contained within the lipid source.

Drug Additions and Prescribing Information

Physical compatibility of drugs delivered via Y-Site concurrently with all OliClinomel and Olimel N4E, N5E, N7/N7E, N9/N9E

Drug type		Drug solution diluent	Max drug concentration	TPN: Drug infusion volume ratio[1]	Max infusion time	Product supplier
Active ingredient	**Brand name**					
ANALGESIC						
Paracetamol	Perfusalgan[2]	No diluent	10 mg/mL	1:5	30 min at 25°C	Bristol-Myers Squibb
	Paracetamol[3]	No diluent	10 mg/mL	1:10	15 min at 25°C	Panpharma
Tramadol[2]	Tradonal	0.9% NaCl	1.2 mg/mL	2:1	24 h at 25°C	Viatris
Propacetamol hydrochloride[2]	Pro-Dafalgan	0.9% NaCl	40 mg/mL	1:2	15 min at 25°C	Bristol-Myers Squibb
ANTACID						
Ranitidine hydrochloride[3]	Ranitidin	0.9% NaCl	3.6 mg/mL	1:1	4 h at 25°C	Ratiopharm
	Zantac	0.9% NaCl	3.6 mg/mL	1:1	4 h at 25°C	Glaxo Smith Kline
ANTIBIOTIC						
Vancomycin HCL[3]	Vancomycin	WFI	24 mg/mL	1:1	1 h at 25°C	Sandoz
Amikacin sulfate[2]	Amukin (Amikin, Amiklin)	0.9% NaCl	15 mg/mL	1:2	30 min at 25°C	Bristol-Myers Squibb
Meropenem[2]	Meronem	0.9% NaCl	20 mg/mL	1:2	15 min at 25°C	AstraZeneca
Metronidazole[2]	Flagyl	No diluent	5 mg/mL	1:6	30 min at 25°C	Sanofi-Aventis
Tobramycin sulfate[2]	Obracin (Nebcin, Nebcina, Nebcine)	0.9% NaCl	4.5 mg/mL	1:2	30 min at 25°C	Eli Lilly

WFI = water for injection

Physical compatibility of drugs delivered via Y-Site concurrently with all OliClinomel and Olimel N4E, N5E, N7/N7E, N9/N9E

Drug type		Drug solution diluent	Max drug concentration	TPN: Drug infusion volume ratio[1]	Max infusion time	Product supplier
Active ingredient	**Brand name**					
ANTIEMETIC						
Ondansetron[3]	Zofran	0.9% NaCl	0.13 mg/mL	1:3	30 min at 25°C	Glaxo Smith Kline
Alizapride[2]	Litican	0.9% NaCl	0.8 mg/mL	2:1	24 h at 25°C	Sanofi-Aventis
Metoclopramide hydrochloride[2]	Primperan	0.9% NaCl	5 mg/mL	1:1	4 h at 25°C	Sanofi-Aventis
CORTICOID						
Methylpredniso-lone succinate[3]	Solu Medrol	WFI	1 mg/mL	1:1	4 h at 25°C	Pfizer
CYTOPROTECTOR						
Calcium Folinate	Lederfolin[2]	5% Glucose	2 mg/mL	1:1	4 h at 25°C	Pfizer (Wyeth-Lederle)
	Calcium Folinate[3]	0.9% NaCl	10 mg/mL	1:1	2 h at 25°C	Sanfo-Aventis
DIURETIC						
Furosemide	Lasilix (Lasix)[2]	5% Glucose	1.5 mg/mL	1:1	4 h at 25°C	Sanofi-Aventis
	Furosemid[3]	0.9% NaCl	6 mg/mL	1:1	6 h at 25°C	Ratiopharm
	Lasix[3]	0.9% NaCl	6 mg/mL	1:1	6 h at 25°C	Sanofi-Aventis

WFI = water for injection

Physical compatibility of drugs delivered via Y-Site concurrently with all OliClinomel and Olimel N4E, N5E, N7/N7E, N9/N9E

Drug type		Drug solution diluent	Max drug concentration	TPN: Drug infusion volume ratio[1]	Max infusion time	Product supplier
Active ingredient	**Brand name**					
HORMONE						
Insulin[3]	Humalog	0.9% NaCl	1.2 IU/mL	1:1	4 h at 25°C	Lilly
	Huminsulin	0.9% NaCl	1.2 IU/mL	1:1	4 h at 25°C	Lilly
Hydrocortisone sodium hemisuccinate[3]	Hydrocortisone Upjohn	WFI	1.2 mg/mL	1:1	4 h at 25°C	SERB
Hydrocortisone sodium phosphate[2]	Efcortesol	5% Glucose	1 mg/mL	1:1	4 h at 25°C	Sovereign Medical
NARCOTIC / ANAESTHETIC						
Fentanyl[3]	Fentanyl	No diluent	0.05 mg/mL	1:1	2 h 20 min at 25°C	Janssen-Cilag
Ketamine[3]	Ketamine	0.9% NaCl	3 mg/mL	1:1	4 h at 25°C	Panpharma
Morphine Hydrochloride[3]	Morphine HCl	0.9% NaCl	1.4 mg/mL	1:1	4 h at 25°C	Sterop
TRACE ELEMENT						
Selenium[3]	Selenase	0.9% NaCl	5 µg/mL	1:1	5 h at 25°C	Biosyn

WFI = water for injection

1. This parameter indicates the composition of the TPN / drug 1. mixture at the Y-site for the time of infusion. For example, a TPN / drug volume ratio of 1:3 corresponds to a mixture at the Y-site composed of 1 part TPN and 3 parts of drug solution.
2. Baxter 2008 data on file.
3. Baxter 2010 data on file.

Physical compatibility of admixed drugs with all OliClinomel and Olimel N4E, N5E, N7/N7E, N9/N9E

Drug type		Max drug concentration	Max infusion time	Product supplier
Active ingredient	**Brand name**			
AMINO ACID				
L-Carnitin[2]	Levocarnil	6 g/L	48 h at 25°C	Sigma-Tau
	Nefrocarnit	6 g/L	48 h at 25°C	Medice
ANALGESIC				
Butylhyoscine / Butylscopolamine[2]	Buscopan	100 mg/L	48 h at 24°C	Boeringher
ANTIBIOTIC				
Vancomycin HCL[2]	Vancomycin	2 g/L	48 h at 25°C	Sandoz
ANTACID				
Ranitidine hydrochloride[2]	Ranitidin	600 mg/L	48 h at 25°C	Ratiopharm
	Zantac	600 mg/L	48 h at 25°C	Glaxo Smith Kline
ANTIEMETIC				
Ondansetron[2]	Zofran	32 mg/L	48 h at 25°C	Glaxo Smith Kline
ANTIHYPERTENSIVE				
Dopamine hydrochloride[1]	Dopamine HCl	200 mg/L	48 h at 25°C	Fresenius Kabi
	Dopamine HCl	200 mg/L	48 h at 25°C	Solvay
DIURETIC				
Furosemide[2]	Furosemid	1.5 g/L	48 h at 25°C	Ratiopharm
	Lasix	1.5 g/L	48 h at 25°C	Sanofi-Aventis

Physical compatibility of admixed drugs with all OliClinomel and Olimel N4E, N5E, N7/N7E, N9/N9E

Drug type		Max drug concentration	Max infusion time	Product supplier
Active ingredient	**Brand name**			
HEPARIN				
Sodium Dalteparin[1]	Fragmine	1250 IU anti-Xa/L	48 h at 25°C	Pfizer
Sodium Enoxaparin[1]	Lovenox	1000 IU anti-Xa/L	48 h at 25°C	Sanofi-Aventis
HORMONE				
Insulin	Humalog[2]	200 IU/L	48 h at 25°C	Lilly
	Huminsulin[2]	200 IU/L	48 h at 25°C	Lilly
	NovoRapid[1]	100 IU/L	48 h at 25°C	Novo Nordisk
	Actrapid[1]	100 IU/L	48 h at 25°C	Novo Nordisk
Somatostatin[1]	Somatostatin-UCB	4 mg/L	For 72 h under refrigerated conditions (2-8° C) followed by 24 hours at 25°C	UCB
NARCOTIC				
Morphine Hydrochloride[2]	Morphine HCl	240 mg/L	48 h at 25°C	Sterop
ELECTROLYTE/TRACE ELEMENT				
Magnesium Sulfate[2]	Magnesium Sulfate	8 mmol/L	48 h at 25°C	Martindale Pharmaceutical
Zinc[2]	Unizink	20 mg/L	48 h at 25°C	Kohler

1. Baxter 2008 data on file.
2. Baxter 2010 data on file.

Physical compatibility of drugs delivered via Y-Site concurrently with OLIMEL N12/N12E

Drug type		Drug solution diluent	Max drug concentration	TPN: Drug infusion volume ratio[1]	Max infusion time	Product supplier
Active ingredient	**Brand name**					
ANALGESIC						
Paracetamol	Perfalgan	No diluent	10 mg/mL	1:10	15 min at 25°C	Fresenius Kabi
ANTIBIOTIC						
Meropenem	Meronem	0.9% NaCl	20 mg/mL	1:2	15 min at 25°C	Pfizer

1. This parameter indicates the composition of the TPN/drug 1. mixture at the Y-site for the time of infusion. For example, a TPN/drug volume ratio of 1:3 corresponds to a mixture at the Y-site composed of 1 part TPN and 3 parts of drug solution.

Physical compatibility of admixed drugs with OLIMEL N12/N12E

Drug type		Max drug concentration	Max infusion time	Product supplier
Active ingredient	**Brand name**			
ANTACID				
Ranitidine hydrochloride	Azantac (Zantac)	77 mg/L	48 h at 25°C	GlaxoSmithKline
ANTIEMETIC				
Alizapride	Litican	77 mg/L	48 h at 24°C	Sanofi
Ondansetron	Zofran	12 mg/L	48 h at 24°C	Fresenius Kabi
DIURETIC				
Furosemide	Lasix	31 mg/L	48 h at 25°C	Sanofi
HORMONE				
Insulin	Actrapid	154 IU/L	48 h at 25°C	Novo Nordisk
	Humulin Regular	92 IU/L	48 h at 25°C	Eli Lilly
PROTON PUMP INHIBITORS				
Omeprazole	Omep	62 mg/L	48 h at 25°C	Hexal

CERNEVIT

This abbreviated summary of product characteristics (SPC) is intended for international use. Please note that it may differ from the licensed SPC in the country where you are practicing. Therefore, please always consult your country-specific SPC or package leaflet.

CERNEVIT, powder for solution for injection or infusion

QUALITATIVE AND QUANTITATIVE COMPOSITION

One vial (5 ml) contains: Retinol (Vitamin A) in the form of retinol palmitate 3500 IU; Cholecalciferol (Vitamin D3) 220.000 IU; Alpha-tocopherol (Vitamin E) 11.200 IU; corresponding to DL alpha-tocopherol quantity 10.200 mg; Ascorbic acid (Vitamin C) 125.000 mg; Thiamine (Vitamin B1) 3.510 mg; in the form of cocarboxylase tetrahydrate 5.800 mg; Riboflavin (Vitamin B2) 4.140 mg; in the form of riboflavin sodium phosphate dehydrate 5.670 mg; Pyridoxine (Vitamin B6) 4.530 mg; in the form of pyridoxine hydrochloride 5.500 mg; Cyanocobalamin (Vitamin B12) 0.006 mg; Folic acid (Vitamin B9) 0.414 mg; Pantothenic acid (Vitamin B5) 17.250 mg; in the form of dexpanthenol 16.150 mg; Biotin (Vitamin B8) 0.069 mg; Nicotinamide (Vitamin PP) 46.000 mg

Excipients: Glycine, lycocholic acid, soya lecithin, sodium hydroxide, hydrochloric acid.

Therapeutic indications:

Vitamin supplementation in patients receiving parenteral nutrition. Only for adults and children aged over 11 years of age.

Posology and method of administration: Adults, adolescents and children aged over 11 years of age:1 vial per day. Intravenous route exclusively.Elderly:No adjustment of the adult dosage due to age alone is necessarily needed; however clinicians should be aware of the increased risk of conditions that may affect posology in this population for example multiple diseases, polypharmacy, malnutrition status, impaired metabolism, and in particular hepatic, renal and cardiac disease resulting in a reduction of dosing or frequency.Renal and hepatic impairment:Individualized vitamin supplementation needs to be considered to maintain adequate vitamin levels and to prevent vitamin toxicity

Method of administration: After reconstitution, administer by slow intravenous injection (at least 10 minutes) or infusion in a solution of 5% glucose or 0.9% sodium chloride solution for infusion. Administration can be continued throughout the period of parenteral nutrition. CERNEVIT may be included in the composition of nutritive admixtures combining carbohydrates, lipids, amino acids and electrolytes, provided that compatibility and stability have been previously confirmed for each nutritive admixture, used.

Contraindications: CERNEVIT must not be used in:hypersensitivity to the active substances, especially vitamin B1 or to any of the excipients, including soy protein/products (lecithin in mixed micelle is soy-derived) or peanut protein/products, hypervitaminosis from any vitamin contained in this formulation.

Special warnings and special precautions for use:

Warnings: Hypersensitivity Reactions: Mild to severe systemic hypersensitivity reactions to the constituents of CERNEVIT have been reported (including vitamins B1, B2, B12, folic acid and soya lecithin). Cross-allergic reactions between soybean and peanut proteins have been observed. The infusion or injection must be stopped immediately if signs or symptoms of a hypersensitivity reaction develop.Vitamin Toxicity: The patient's clinical status and blood vitamin concentrations should be monitored to avoid overdose and toxic effects, especially with vitamins A, D and E, and in particular in patients who receive additional vitamins from other sources or use other agents that increase the risk of vitamin toxicity.

Precautions: Hepatic Effects: Monitoring of liver function parameters is recommended in patients receiving CERNEVIT. Particularly close monitoring is recommended in patients with hepatic jaundice or other evidence of cholestasis.In patients receiving CERNEVIT, instances of liver enzyme increases have been reported, including isolated alanine aminotransferase (ALT) increases in patients with inflammatory bowel disease In addition, an increase in bile acid levels (total and individual bile acids including glycocholic acid) have been reported in patients receiving CERNEVIT. Due to the presence of glycocholic acid, repeated and prolonged administration in patients with hepatic jaundice or significant laboratory cholestasis requires careful monitoring of liver function. Hepatobiliary disorders including cholestasis, hepatic steatosis, fibrosis and cirrhosis, possibly leading to hepatic failure, as well as cholecystitis and cholelithiasis are known to develop in some patients on parenteral nutrition (including vitamin supplemented parenteral nutrition). The etiology of these disorders is thought to be multifactorial and may differ between patients. Patients developing abnormal laboratory parameters or other signs of hepatobiliary disorders should be assessed early by a clinician knowledgeable in liver diseases in order to identify possible causative and contributory factors, and possible therapeutic and prophylactic interventions.

Use in Patients with Impaired Hepatic Function: Patients with hepatic impairment may need individualized vitamin supplementation. Particular attention should be placed on preventing vitamin A toxicity, because the presence of liver disease is associated with increased susceptibility to vitamin A toxicity, in particular in combination with chronic excessive alcohol consumption.

Use in Patients with Impaired Renal Function: Patients with renal impairment may need individualized vitamin supplementation, depending on the degree of renal impairment and the presence of concomitant medical conditions. In patients with severe renal impairment, particular attention should be placed on maintaining adequate vitamin D status and preventing vitamin A toxicity.

General Monitoring: The total vitamin amounts from all sources such as nutritional sources, other vitamin supplements, or medications that contain vitamins as inactive ingredients should be considered. The patient's clinical status and vitamin levels should be monitored to ensure maintenance of adequate levels.It should be taken into account that some vitamins, especially A, B2, and B6 are sensitive to ultraviolet light (e.g., direct or indirect sun light). In addition, loss of vitamins A, B1, C, and E

may increase with higher levels of oxygen in the solution. These factors should be considered if adequate vitamin levels are not achieved. Patients receiving parenteral multivitamins as the only source of vitamins for extended periods of time should be monitored for adequate supplementation, for example:Vitamin A in patients with pressure ulcers, wounds, burns, short bowel syndrome or cystic fibrosis,Vitamin B1 in dialysis patients,Vitamin B2 in cancer patients,Vitamin B6 in patients with renal impairment,Individual vitamins whose requirements may be increased due to interactions with other medicines.Deficiency of one or more vitamins must be corrected by specific supplementation.CERNEVIT does not contain vitamin K, which should be administered separately if necessary.

Use in Patients with Vitamin B12 Deficiency: Evaluation of vitamin B12 status is recommended before starting supplementation with CERNEVIT in patients at risk for vitamin B12 deficiency and/or when supplementation over several weeks is planned. After several days of administration, both the individual amounts of cyanocobalamin (vitamin B12) and folic acid in CERNEVIT may be sufficient to result in an increase in red blood cell count, reticulocyte count, and hemoglobin values in some patients with vitamin B12 deficiency-associated megaloblastic anemia. This may be masking an existing vitamin B12 deficiency which requires higher doses of cyanocobalamin than provided in CERNEVIT.When interpreting levels of vitamin B12, it should be taken into account that recent intake of vitamin B12 may result in normal levels despite a tissue deficiency.

Laboratory Test Interferences: Biotin may interfere with laboratory tests that are based on a biotin/streptavidininteraction, leading to either falsely decreased or falsely increased test results, depending on the assay. Ascorbic acid may interfere with urine and blood glucose testing systems

Geriatric Use: In general, dosage adjustments for an elderly patient should be considered (reducing the dose and/or extending the dosing intervals) reflecting the greater frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or drug therapy.

Sodium content: CERNEVIT contains 24 mg sodium (1 mmoL) per vial. This should be taken into consideration if patients are on a controlled sodium diet. Compatibility must be tested before mixing with other solutions for infusion and, specifically, when CERNEVIT is added to bags containing binary parenteral nutrition mixtures combining glucose, electrolytes and an amino acid solution, together with ternary mixtures combining glucose, electrolytes and amino acid solutions and lipids.

Fertility, pregnancy and lactation: Pregnancy:No safety data are available for CERNEVIT administered during pregnancy or in breastfeeding women. This medicinal product may be prescribed during pregnancy if required, providing the indication and dosages are observed in order to avoid vitamin overdose. Lactation Use is not recommended during breastfeeding because of the risk of vitamin A overdose in the neonate. There are no adequate data from the use of Cernevit with regards to fertility in male or female patients.

Undesirable effects: Unknown frequency: Immune system disorders: Systemic hypersensitivity reactions with manifestations such as respiratory distress, chest discomfort, throat tightness, urticaria, rash, erythema, epigastric discomfort , as well as cardiac arrest with fatal outcome. Metabolism and nutrition disorders: Vit A increased. Retinol binding protein increased. Nervous system disorders: Dysgueusia. Cardiac disorders: Tachycardia. Respiratory, thoracic and mediastinal disorders: Tachypnea. Gastrointestinal disorders: Diarrhoea. Hepatobiliary disorders: Transaminases increased, isolated alanine aminotransferase increase, glutamate dehydrogenase increased, blood alkaline phosphatase increased, bile acids increased, gamma-glutamyltransferase increased. Skin and subcutaneous tissue disorders: Pruritus. General disorders: Pirexia, generalized aching, infusion site reactions. Uncommon: Nausea. Common:Injection/Infusion site pain.

Overdose
Acute or chronic overdose of vitamins (in particular A, B6, D, and E) can cause symptomatic hypervitaminosis. Treatment of vitamin overdose usually consists of withdrawal of the vitamin and other measures as clinically indicated

PHARMACEUTICAL PARTICULARS: Instructions for use and handling CERNEVIT:
Using a syringe, inject 5 ml of water for injections or 5% glucose solution or 0.9% sodium chloride solution into the vial. Mix gently to dissolve the powder.The obtained solution is yellow-orange in colour.Medicinal products subject to medical prescription.For more information, please check full SPC.

Date of preparation: Apr 2020

CLINIMIX

This abbreviated summary of product characteristics (SPC) is intended for international use. Please note that it may differ from the licensed SPC in the country where you are practicing. Therefore, please always consult your country-specific SPC or package leaflet.

NAMES OF THE MEDICINAL PRODUCT
CLINIMIX N9G20E, CLINIMIX N9G15E ,CLINIMIX N9G20E, CLINIMIX N12G20, CLINIMIX N12G20E, CLINIMIX N14G30, CLINIMIX N14G30E, CLINIMIX N17G35, CLINIMIX N17G35E, *solution for infusion*

QUALITATIVE COMPOSITION
CLINIMIX N9G20E, CLINIMIX N9G15E ,CLINIMIX N9G20E, CLINIMIX N12G20E, CLINIMIX N14G30E, CLINIMIX N17G35E, are packaged in a dual compartment plastic bag containing respectively an amino acid solution with electrolytes and a glucose solution with calcium.

CLINIMIX N12G20 ,CLINIMIX N14G30, CLINIMIX N17G35, are packaged in a dual compartment plastic bag containing respectively an amino acid solution without electrolytes and a glucose solution without calcium.
Please check full SPC for full Quantitative composition.

CLINICAL PARTICULARS

Therapeutic indications

Parenteral nutrition when oral or enteral alimentation is impossible, insufficient or contraindicated.
For patient undergoing long-term parenteral nutrition, the addition of a lipid emulsion to CLINIMIX in order to supply both calories and essential fatty acids is possible.

Contraindications

Known hypersensitivity to any of the active substances or excipients, or to the components of the container. • Amino acid metabolism disorders • Severe hyperglycaemia • Metabolic acidosis, hyperlactataemia • CLINIMIX containing electrolytes: should not be used in patients with hyperkalaemia, hypernatraemia and in patients with pathologically elevated plasma concentrations of magnesium, calcium and/or phosphorus. • As for other calcium-containing infusion solutions, concomitant treatment with ceftriaxone and CLINIMIX containing electrolytes is contraindicated in newborns (≤28 days of age), even if separate infusion lines are used (risk of fatal ceftriaxone calcium salt precipitation in the neonate's bloodstream).

Undesirable effects

Potential undesirable effects may occur as a result of inappropriate use: for example, overdose or excessively fast infusion rate.

Post-marketing Adverse Reactions

The following adverse reactions have been reported with CLINIMIX formulations in the post-marketing experience, listed by MedDRA System Organ Class (SOC) and by Preferred Term

System Organ Class (SOC)	Preferred MedDRA Term	Frequency[a]
Immune system disorders	Hypersensitivity*	Not known

a: Frequency is defined as very common (≥ 1/10); common (≥ 1/100 to < 1/10); uncommon (≥ 1/1000 to < 1/100): rare (≥ 1/10,000 to < 1/1000); very rare (< 1/10,000); and not known (cannot be estimated from the available data).

*Includes the following manifestations: Hypotension, Hypertension, Peripheral cyanosis, Tachycardia, Dyspnoea, Vomiting, Nausea, Urticaria, Rash, Pruritus, Erythema, Hyperhidrosis, Pyrexia, Chills

Class Reactions: Other adverse reactions reported with parenteral nutrition include: • Anaphylaxis • Pulmonary vascular precipitates • Hyperglycaemia; Hyperammonemia, Azotemia • Hepatic failure, Hepatic cirrhosis, Hepatic fibrosis, Cholestasis, Hepatic steatosis, Blood bilirubin increased, Hepatic enzyme increased • Cholecystitis, Cholelithiasis • Infusion site thrombophlebitis, Venous irritation (Infusion site phlebitis, Pain, Erythema, Warmth, Swelling, Induration).

Glucose intolerance is a common metabolic complication in severely stressed patients. With the infusion of the products, hyperglycaemia, glycosuria, and hyperosmolar syndrome may occur.

Precautions

Severe water and electrolyte equilibration disorders, severe fluid overload states, and severe metabolic disorders should be corrected before starting the infusion.
Metabolic complications may occur if the nutrient intake is not adapted to the patient's requirements, or the metabolic capacity of any given dietary component is not accurately assessed. Adverse metabolic effects may arise from administration of inadequate or excessive nutrients or from inappropriate composition of an admixture for a particular patient's needs.
Frequent clinical evaluation and laboratory determinations are necessary for correct monitoring during administration. These should include ionogram and kidney and liver function tests.
The electrolyte requirements of patients receiving the solutions should be carefully determined and monitored especially for the electrolyte-free solutions. CLINIMIX without electrolytes should not be used in cases of hypokalaemia and hyponatremia.
Glucose intolerance is a common metabolic complication in severely stressed patients. With the infusion of the products, hyperglycaemia, glycosuria, and hyperosmolar syndrome may occur. Blood and urine glucose should be monitored on a routine basis and for diabetics insulin dosage should be adapted, if necessary.
Use with caution in patients with renal insufficiency, particularly if hyperkalaemia is present, because of the risk of developing or worsening metabolic acidosis and hyperazotemia if extra- renal waste removal is not being performed. Fluid and electrolyte status should be closely monitored in these patients. In case of severe kidney failure, specially formulated amino acid solutions should be preferred.
Caution should be exercised in administering CLINIMIX to patients with adrenal insufficiency.
Care should be taken to avoid circulatory overload particularly in patients with pulmonary oedema, cardiac insufficiency and/or failure. Fluid status should be closely monitored.
In patients with pre-existing liver disease or hepatic insufficiency, apart from routine liver function tests, possible symptoms of hyperammonaemia should be controlled.
Hepatobiliary disorders including cholestasis, hepatic steatosis, fibrosis and cirrhosis, possibly leading to hepatic failure, as well as cholecystitis and cholelithiasis are known to develop in some patients on parenteral nutrition. The aetiology of these disorders is thought to be multifactorial and may differ between patients. Patients developing abnormal laboratory parameters or other signs of hepatobiliary disorders should be assessed early by a clinician knowledgeable in liver diseases in order to identify possible causative and contributory factors, and possible therapeutic and prophylactic interventions.
Increase in blood ammonia levels and hyperammonemia may occur in patients receiving amino acid solutions. In some patients

this may indicate the presence of a congenital disorder of amino acid metabolism (see section 4.3) or hepatic insufficiency. Blood ammonia should be measured frequently in newborns and infants to detect hyperammonemia, which may indicate the presence of a congenital abnormality of amino acid metabolism.
Depending on extent and aetiology, hyperammonemia may require immediate intervention.
A too rapid infusion of amino acids may result in nausea, vomiting and chills. In such cases, discontinue the infusion immediately.
In general, dose selection for an elderly patient should be cautious, reflecting the greater frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or drug therapy.
Paediatric population: This medicinal product is not recommended for preterm, and term neonates and for children below 2 years of age. See above regarding monitoring for hyperammonemia in patients below 2 years.
Light exposure of solutions for intravenous parenteral nutrition, especially after admixture with trace elements and/or vitamins, may have adverse effects on clinical outcome in neonates, due to generation of peroxides and other degradation products. When used in neonates and children below 2 years, CLINIMIX should be protected from ambient light until administration is completed
For the detailed composition, posology, Special warnings and precautions for use, interactions, pharmacological properties and pharmaceutical particulars, please refer to the full SPC. Medicinal products are subject to medical prescription.

Revised Apr 2021

CLINOLEIC

This abbreviated summary of product characteristics (SPC) is intended for international use. Please note that it may differ from the licensed SPC in the country where you are practicing. Therefore, please always consult your country-specific SPC or package leaflet.

ClinOleic 20%: Emulsion for infusion.

QUALITATIVE AND QUANTITATIVE COMPOSITION
Per 100 ml: Refined olive oil and refined soya bean oil* 20.00 g corresponding to a content of essential fatty acids 4.00 g. Energy content 2000 kcal/l (8.36 MJ/l).Lipid content (olive and soya bean oil) 200 g/l. Osmolarity 270 mOsm/l. pH 6-8 Density 0.986. Phospholipids provide 47 milligrams or 1.5 mmol of phosphorus per 100 ml.
*Mixture of refined olive oil (approximately 80%) and refined soya bean oil (approximately 20%).

CLINICAL PARTICULARS
Therapeutic indications:
Indicated as a source of lipids for patients requiring parenteral nutrition, when oral or enteral nutrition is impossible, insufficient or contraindicated.

Posology and method of administration:
Clinoleic 20% contains 200 mg/ml of lipids.
The posology depends on energy expenditure, the patient's clinical status, body weight, and ability to metabolize ClinOleic 20%, as well as additional energy given orally/enterally. Therefore, the dosage should be individualized and the bag size chosen accordingly.
Dosage:
In adults: The posology is 1 to a maximum of 2 g lipids/kg/day. The initial infusion rate must be slow and not exceed 0.1 g lipids or 0.5 ml (10 drops) per minute for 10 minutes then gradually increased until reaching the required rate after half an hour. Never exceed 0.15 g lipids/kg/hour (0.75 ml/kg/hour). **Adults per kg of body weight:** Usual lipid dosage: 1 to 2 g/kg/day. Infused volume of Clinoleic 20%:5 to 10 ml/kg/day. **Adults for 70 kg: Usual lipid dosage:** 70 to 140 g/day. Infused volume of Clinoleic 20%: 350 to 700 ml/day.
In children: Clinoleic 20% should be administered as a continuous 24h/day infusion. It is recommended not to exceed a daily dose of 3g-lipids/kg b.w. and an infusion rate of 0.15 g lipids/kg b.w./h. Daily dose should be increased gradually during the first week of administration.
In premature newborns and low birth weight infants: The use of Clinoleic 20% is restricted to premature infants of 28 weeks of gestational age or more. Clinoleic 20% should be administered as a continuous 24h/day infusion. The initial daily dose should be 0.5-1.0g lipids/kg b.w. The dose may be increased by 0.5-1.0g lipids/kg b.w. every 24 hours up to a daily dose of 2.0 g lipids/kg b.w. Usage in nutritive admixtures (with glucose and amino acids): "Breaking" or "oiling out" of the emulsion can be visibly identified by accumulation of yellowish droplets or particles in the admixture

Contraindications:
- hypersensitivity to the active substance or to any of the excipients (e.g.: egg or soybean protein)
- severe dyslipidemia and non corrected metabolism disorders including lactic acidosis and uncompensated diabetes

Special warnings and special precautions for use:
The infusion must be stopped immediately if any abnormal signs or symptoms of an allergic reaction (such as sweating, fever, shivering, headache, skin rashes or dyspnoea) develop. This medicinal product contains soya-bean oil and egg phospholipids. Soybean and egg proteins may cause hypersensitivity reactions. Cross-allergic reactions between soybean and peanut proteins have been observed.
During short-term or long-term intravenous nutrition, alkaline phosphatases and total bilirubin should be checked at regular intervals, depending on the health status of the patient. The blood sugar, serum triglycerides, the acid-base balance,

electrolytes, serum osmolarity, kidney function, coagulation parameters and the blood count must be checked at regular intervals.
Parenteral nutrition should be used with caution in patients with pre-existing liver disease or liver insufficiency. Liver function parameters should be closely monitored in these patients.
Parenteral Associated Liver Diseases (PNALD) including cholestasis, hepatic staetosis, fibrosis and cirrhosis, possibly leading to hepatic failure, as well as cholecystitis and cholelithiasis are known to develop in some patients on parenteral nutrition. The etiology of these disorders in thought to be multifactorial and may differ between patients. Patients developing abnormal laboratory parameters or other signs of hepatobiliary disorders should be assessed early by a clinician knowledgeable in liver diseases in order to identify possible causative and contributory factors, and possible therapeutic and prophylactic interventions.
Clinoleic 20% should be administered with caution in case of neonatal hyperbilirubinemia (total serum bilirubin >200 µmol/l). Total bilirubin levels should be monitored closely. As other lipid emulsions, Clinoleic 20% should be used in extremely premature and/or very low birth-weight infant under the close supervision of a neonatologist. There is clinical experience for Clinoleic 20% infusion time, up to 7 days in neonates and up to 2 months in children. **Light exposure of solutions for intravenous parenteral nutrition, especially after admixture with trace elements and/or vitamins, may have adverse effects on clinical outcome in neonates, due to generation of peroxides and other degradation products. When used in neonates and children below 2 years, Clinoleic should be protected from ambient light until administration is completed.**

Interactions with other medicaments and other forms of interaction: Complete information about incompatibilities is not available. ClinOleic 20% contains vitamin K, naturally present in lipid emulsions. The amount of Vitamin K in recommended doses of ClinOleic 20%, are not expected to influence effects of coumarin derivatives.
The lipids contained in this emulsion may interfere with the results of certain laboratory tests if the blood sample is taken before the lipids are eliminated from the serum (these are generally eliminated after a period of 5 to 6 hours without receiving lipids). Refer to the laboratory testing system product information regarding potential assay interference associated with lipemic samples.

Pregnancy and lactation: The safety of administration of Clinoleic 20% during pregnancy and lactation has not been established. Therefore, Clinoleic 20% should not be used during pregnancy and lactation except after special consideration.

Undesirable effects:
Common: nausea vomiting, hyperglycaemia, mean arterial pressure decreased.
Uncommon: Dyspnea, Cholestasis, Blood bilirubin increased, Hepatic enzyme increased.

Overdose: A reduced ability to remove the lipids may result in a "fat overload syndrome" which may be caused by overdose, the effects of which are usually reversible after the lipid infusion is stopped.

PHARMACEUTICAL PARTICULARS:
List of excipients:
Egg phospholipids, glycerol, sodium oleate, sodium hydroxide, water for injections.

Incompatibilities:
Complete information about incompatibilities is not available. Never add medication or electrolytes directly to the lipid emulsion. If it is necessary to introduce additives, verify the compatibility and mix thoroughly before administration to the patient.

Shelf life:
18 months in plastic bag in its overwrap. **When used in neonates and children below 2 years, the solution (in bags and administration sets) should be protected from light exposure until administration is completed.**

Special precautions for storage:
Do not store above 25°C. Do not freeze. Keep the container in the outer carton. Medicinal products subject to medical prescription.

Date of preparation: Mar 2020

JUNYELT, concentrate for solution for infusion

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JUNYELT, concentrate for solution for infusion

QUALITATIVE AND QUANTITATIVE COMPOSITION

One ampoule (10 ml) contains: Zinc gluconate 6970 µg; Copper gluconate 1428 µg, Manganese gluconate 40.52 µg, Potassium iodide 13.08 µg, Sodium selenite 43.81 µg. Excipients: hydrochloric acid, water for injections.

CLINICAL PARTICULARS

Therapeutic indications:

JUNYELT is used as part of the intravenous nutrition of preterm and term newborns, infants and children. It is intended to meet the basal requirements for trace elements.

Posology and method of administration:

Preterm, and term newborns, infants and children (weighing 20 kg or less): Basal requirements of the included trace elements are covered by 1 ml of JUNYELT per kg body weight per day to a maximum daily dose of 20 ml. **Children (weighing more than 20 kg):** A daily dose of 20 ml JUNYELT should meet basal trace element requirements. JUNYELT should be supplemented with a single zinc injectable solution in case of administration to preterm infants to reach a total zinc parenteral intake of 450-500 µg/kg/day. A daily iron infusion is recommended when preterm infants are receiving long term parenteral nutrition (> 3 weeks), and molybdenum add-on in case of parenteral nutrition > 4 weeks

Method of administration:
Intravenous route: JUNYELT is not intended to be administered in its current presentation. It should be diluted according to the final desired osmolarity.

Contraindications:
Patients with known hypersensitivity to one of the actives substances and to the excipients. In case of Wilson's disease and if serum concentrations of any of the trace elements contained in JUNYELT are elevated.

Special warnings and precautions for use:
The solution should be used after an accurate control of the patient clinical and biological parameters. In paediatrics, individual trace element requirements may vary based on factors such as age, weight, underlying disease state and duration of parenteral nutrition. Blood manganese levels should be regularly monitored in case of prolonged artificial nutrition. A dose reduction may be necessary or infusion of JUNYELT should be stopped if manganese levels rise into the potentially toxic range. The occurrence of neurological signs must evoke the possibility of a manganese overdose. Particular attention must be paid when the product is given to patients with reduced biliary excretion, since this could interfere with the biliary elimination of manganese, copper and zinc, leading to accumulation and overdose. Copper overdose must be considered in the presence of nausea, vomiting, gastralgia. In patients with hepatic impairments or mild cholestasis the posology should be adapted. Besides, in case of pronounced cholestasis blood copper levels and hepatobiliary parameters should be monitored. JUNYELT should be used with caution in patients with impaired renal function, as excretion of some trace elements (selenium and zinc) may be significantly decreased, leading to accumulation and overdose. In patients with renal impairments, the posology should be adapted. JUNYELT should be used with caution in patients with manifest hyperthyroidism. In patients undergoing medium to long-term parenteral nutrition, there is an increased frequency of copper, zinc and selenium deficiency. In such circumstances, when necessary, the dosage should be adapted with the use of an extra supply of solutions, which contain only these individual components. Because of a risk of precipitation, drugs or electrolytes should not be added to JUNYELT before the later has been diluted. The compatibility profile of infusion solutions administered through the same line should be verified. No adjustment of JUNYELT is required in case of additional intake of iodine through iodine-based antiseptic. This product contains 11.6 µg of sodium per ampoule, i.e. essentially "sodium free" and 3.1 µg of potassium per ampoule, i.e. essentially "potassium free".

Interaction with other medicinal products and other forms of interaction: No interaction studies have been performed. **Fertility, pregnancy and lactation:** Not relevant. **Undesirable effects:** Pain at the application site.

Overdose: If overdose is suspected, treatment with JUNYELT should be withdrawn. Overdose should be confirmed by appropriate laboratory tests.

PHARMACEUTICAL PARTICULARS:

Incompatibilities: JUNYELT must not be used as a vehicle for other drugs. This medicinal product must not be mixed with other medicinal products except those mentioned in section 6.6 of SPC.

Shelf life: 36 months. After dilution, chemical and physical in-use stability has been demonstrated for 48 h at 25°C. From a microbiological point of view, the product should be used immediately after dilution. If not used immediately, in-use storage times and conditions prior to use are the responsibility of the user

Date of preparation: April 2020

NUTRYELT, concentrate for solution for infusion

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NUTRYELT, concentrate for solution for infusion

QUALITATIVE AND QUANTITATIVE COMPOSITION
One ampoule (10 ml) contains: Zinc 10 mg; Copper 300 ug, Manganese 55 ug, Fluoride 950 ug, Iodine 130 ug, Selenium 70 ug, Molybdenum 20 ug, Chromium 10 ug, Iron 1 mg.Excipients: hydrochloric acid, water for injections.

CLINICAL PARTICULARS
Therapeutic indications:
NUTRYELT is used as part of an intravenous nutrition regimen, to cover basal or moderately increased trace element requirements in parenteral nutrition.

Posology and method of administration:
For adults only.
The recommended daily dose in patients with basal to moderately increased requirements is one ampoule (10 ml) of NUTRYELT. In cases of significantly increased trace element requirements (such as extensive burns, patients in severe hypercatabolic state due to major trauma) 2 ampoules (20 ml) of NUTRYELT may be given per day, and monitoring of serum trace element level is recommended.

Method of administration
NUTRYELT is not intended to be administered in its current presentation. It should be diluted according to the final desired osmolarity. The osmolarity value of the final preparation allows either administration through a peripheral vein, or only central venous catheter administration

Contraindications:
NUTRYELT must not be used in: Children, patients less than 40 kg body weight, pronounced cholestasis (serum bilirubin > 140 µmol/l), hypersensitivity to the active substances and to the excipient, in cases of Wilson's disease and hemochromatosis, if serum concentrations of any of the trace elements contained in NUTRYELT are elevated.

Special warnings and precautions for use:
The solution should be used after an accurate control of the patient clinical and biological parameters. Blood manganese levels should be regularly monitored in case of prolonged artificial nutrition: dose reduction may be necessary or NUTRYELT infusion should be stopped if manganese levels rise into the potentially toxic range (please refer to appropriate reference ranges). Particular attention must be paid when the product is given to patients with reduced biliary excretion, since it could interfere with the biliary elimination of manganese, copper and zinc, leading to accumulation and overdose. NUTRYELT should be used with caution in patients with impaired renal function as excretion of some trace elements (selenium, fluoride, chromium, molybdenum and zinc) may be significantly decreased. In patients with renal, hepatic impairments or mild cholestasis the posology should beadapted. In patients undergoing medium to long-term parenteral nutrition, there is an increased occurence of iron, zinc and selenium deficiency. In such circumstances, when necessary, the dosage should be adapted with the use of an extra supply of solutions, which contain only these individual components. For patients receiving repeated blood transfusions, a risk of iron overload can occur. Parenterally administered iron preparations can cause hypersensitivity reactions including serious and potentially fatal anaphylactic/anaphylactoid reactions. The risk is enhanced for patients with known allergies including drug allergies

Interaction with other medicinal products and other forms of interaction:
Combinations not recommended:
+ **Iron salts (oral route):**
Fainting or shock attributed to the rapid release of iron from its complex shape and transferrin saturation.

Fertility, pregnancy and lactation
Pregnancy
No safety data for NUTRYELT are available when it is administered during pregnancy and lactation. Therefore, NUTRYELT should not be used during pregnancy and lactation except after special consideration and if it is absolutely necessary.

Undesirable effects: Pain at the application site, cases of hypersensitivity reactions including fatal anaphylactic reactions have been reported in patients receiving IV iron-containing products.

Overdose: If overdose is suspected, treatment with NUTRYELT should be withdrawn. Overdose should be confirmed by appropriate laboratory tests.

PHARMACEUTICAL PARTICULARS:
Incompatibilities
- NUTRYELT must not be used as a vehicle for other drugs.
- NUTRYELT, as with other trace element solutions, cannot be added directly to inorganic phosphate (additive) solutions.
- Degradation of ascorbic acid in parenteral nutrition mix is accelerated by trace elements

Shelf life
3 years. After dilution, chemical and physical in-use stability has been demonstrated for 48 h at 25°C protected from light. From a microbiological point of view, the product should be used immediately after dilution. If not used immediately, in-use storage times and conditions prior to use are the responsibility of the user.

Date of preparation: March 2017

PERIOLIMEL / OLIMEL

PERIOLIMEL / OLIMEL; PERIOLIMEL N4E, emulsion for infusion; OLIMEL N5E, emulsion for infusion; OLIMEL N7E, emulsion for infusion; OLIMEL N9E, emulsion for infusion; OLIMEL N7, emulsion for infusion; OLIMEL N9, emulsion for infusion; OLIMEL N12, emulsion for infusion; OLIMEL N12E, emulsion for infusion. **COMPOSITION** For PERIOLIMEL N4E, OLIMEL N5E, OLIMEL N7E, OLIMEL N9E and OLIMEL N12E: Active substances: Refined olive oil + refined soybean oil; Alanine; Arginine; Aspartic acid; Glutamic acid; Glycine; Histidine; Isoleucine; Leucine; Lysine; Methionine; Phenylalanine; Proline; Serine; Threonine; Tryptophan; Tyrosine; Valine; Sodium acetate, trihydrate; Sodium glycerophosphate, hydrated; Potassium chloride; Magnesium chloride, hexahydrate; Calcium chloride, dehydrate; Glucose anhydrous. For OLIMEL N7, OLIMEL N9 and OLIMEL N12: Active substances: Refined olive oil + refined soybean oil; Alanine; Arginine; Aspartic acid; Glutamic acid; Glycine; Histidine; Isoleucine; Leucine; Lysine; Methionine; Phenylalanine; Proline; Serine; Threonine; Tryptophan; Tyrosine; Valine; Glucose

anhydrous **Therapeutic indications** PERIOLIMEL / OLIMEL are indicated for parenteral nutrition for adults and children greater than 2 years of age when oral or enteral nutrition is impossible, insufficient or contraindicated. **Contraindications** The use of PERIOLIMEL / OLIMEL with and without electrolytes are contra-indicated in the following situations: In premature neonates, infants and children less than 2 years of age | Hypersensitivity to egg, soybean, or peanut proteins, or to any of the active substances or excipients | Congenital abnormalities of amino acid metabolism | Severe hyperlipidaemia or severe disorders of lipid metabolism characterized by hypertriglyceridemia | Severe hyperglycemia. The use of PERIOLIMEL / OLIMEL with electrolytes are contra-indicated in the following situations: Pathologically-elevated plasma concentrations of sodium, potassium, magnesium, calcium, and/or phosphorus.

UNDESIRABLE EFFECTS		
System Organ Class	**MedDRA Preferred Term**	**Frequency**
Immune System Disorders	Hypersensitivity reactions including hyperhidrosis, pyrexia, chills, headache, skin rash (erythematous, papular, pustular, macular, generalised rash), pruritus, hot flush, dyspnoea	Not known
Cardiac Disorders	Tachycardia	Common
Metabolism and Nutrition Disorders	Decreased appetite	Common
	Hypertriglyceridemia	Common
Gastrointestinal Disorders	Abdominal pain	Common
	Diarrhea	Common
	Nausea	Common
	Vomiting	Not known
Vascular Disorders	Hypertension	Common
General disorders and administration site conditions	Extravasation which may result at infusion site level in: pain, irritation, swelling/oedema, erythema/warmth, skin necrosis, blisters/vesicles, inflammation, induration, skin tightness	Not known

The following class-like-adverse drug reactions (ADRs) have been described in other sources in relation to similar parenteral nutrition products; the frequency of these events is not known. Blood and Lymphatic System Disorders: Thrombocytopenia | Hepatobiliary Disorders: Cholestasis, Hepatomegaly, Jaundice | Immune System Disorders: Hypersensitivity | Injury, poisoning and procedural complications: Parenteral nutrition associated liver disease | Investigations: Blood alkaline phosphatase increased, Transaminases increased, Blood bilirubin increased, Elevated liver enzymes | Renal and Urinary Disorders: Azotemia | Vascular disorders: Pulmonary vascular precipitates (pulmonary vascular embolism and respiratory distress) | Fat overload syndrome (very rare). For a detailed posology, Special warnings and precautions, incompatibilities, interactions, pharmacological properties and pharmaceutical particulars, please refer to the full SPC.
Medicinal products are subject to medical prescription.

Revision date: June 2020

OLICLINOMEL

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OLICLINOMEL
Emulsion for infusion.

Qualitative composition
This medicinal product is presented in the form of a 3-compartment bag. (Lipid emulsion compartment, amino acid compartment and glucose solution compartment).

Oliclinomel exist in 8 different formula:
- N4-550 and N4-550E (with electrolytes): 1000ml contains 20g lipids, 22g amino acids and 80g glucose
- N5-800 and N5-800E (with electrolytes): 1000ml contains 40g lipids, 28g amino acids and 100g glucose
- N6-900 and N6-900E (with electrolytes): 1000ml contains 40g lipids, 34g amino acids and 120g glucose
- N7-1000 and N7-1000E (with electrolytes): 1000ml contains 40g lipids, 40g amino acids and 160g glucose

For each formula, there are four presentations: 1000ml, 1500ml, 2000ml and 2500ml

Active substances
Refined olive oil + refined soya oil*
Alanine, Arginine, Glycine, Histidine, Isoleucine, Leucine, Lysine (As lysine hydrochloride), Methionine, Phenylalanine, Proline, Serine, Threonine, Tryptophan, Tyrosine, Valine, Anhydrous glucose (As glucose monohydrate)
* Mixture of refined olive oil (approximately 80%) and refined soya oil (approximately 20%)

For the Oliclinomel formula with electrolytes, following substances are also present: Sodium Acetate $3H_2O$, Sodium glycerophosphate $5H_2O$, Potassium chloride, Magnesium chloride 6H2O, Calcium chloride $2H_2O$

Therapeutic indications
Parenteral nutrition for adults and children above 2 years of age when oral or enteral nutrition is impossible, insufficient or contraindicated.

Posology
The dosage will depend on the patient's energy expenditure, clinical status, body weight, and the ability to metabolize the constituents of OLICLINOMEL, as well as additional energy or proteins provided orally/enterally; therefore, the bag size should be chosen accordingly.The administration may be continued for as long as is required by the patient's clinical conditions. Please check full SPC for more information about posology.
The maximum daily dose should not be exceeded in adult and paediatric patients.

Method of administration
For Oliclinomel N4-550 and N4-550E: By intravenous administration through a central or peripheral vein
For Oliclinomel N5-800, N5-800E, N6-900, N6-900E, N7-1000 and N7-1000E: By intravenous administration through a central vein. The recommended duration of the parenteral nutrition infusion is between 12 and 24 hours.

Contraindications
Use of OLICLINOMEL is contraindicated in the following situations:
- in premature neonates, infants and children less than 2 years old, as the calorie-nitrogen ratio and energy supply are inappropriate.
- known hypersensitivity to egg or soya proteins or to any other ingredient.
- congenital abnormalities of amino acid metabolism.
- severe hyperlipidaemia.
- Severe hyperglycemia,
- [***For Oliclinomel formulations with electrolytes:*** Pathologically-elevated plasma concentration of sodium, potassium, magnesium, calcium, and/or phosphorus]

Special warnings and precautions for use
[***For all Oliclinomel formulations except N4-550, and N4-550E:*** Do not administer through a peripheral vein.]
An excessively fast administration of total parenteral nutrition (TPN) solutions, including OLICLINOMEL, may result in severe or fatal consequences.
The infusion must be stopped immediately if any signs or symptoms of an allergic reaction (such as sweating, fever, chills, headache, skin rashes, dyspnoea or bronchospasm) develop. This medicinal product contains soybean oil and egg phosphatide. Soybean and egg proteins may cause hypersensitivity reactions. Cross-allergic reactions between soybean and peanut proteins have been observed.
Hypersensitivity reactions in patients with allergy to corn or corn products.
Specific clinical monitoring is required when an intravenous infusion is started.
Severe water and electrolyte equilibration disorders, severe fluid overload states, and severe metabolic disorders must be corrected before starting the infusion.

For Oliclinomel formulations with electrolytes: Ceftriaxone must not be mixed or administered simultaneously with any calcium-containing IV solutions even via different infusion lines or different infusion sites. Cefriaxone and calcium-containing solutions may be administered sequentially one after another if infusion lines at different sites are used or if the infusion lines are replaced or thoroughly flushed between infusions with physiological salt solution to avoid precipitation
Pulmonary vascular precipitates causing pulmonary vascular embolism and respiratory distress have been reported in patients receiving parenteral nutrition. In some cases, fatal outcomes have occurred. Excessive addition of calcium and phosphate increases the risk of formation of calcium phosphate precipitates.

[For OLICLINOMEL N4-550, N5-800, N6-900 and N7-1000 formulations:] Precipitates of various natures have been reported even in the absence of phosphate salt in the solution.
Suspected precipitate formation in the blood stream has also been reported.
In addition to inspection of the solution, the infusion set and catheter should also periodically be checked for precipitates.
If signs of respiratory distress occur, the infusion should be stopped and medical evaluation initiated.
Do not add other medicinal products or substances to any components of the bag or to the reconstituted emulsion without first confirming their compatibility and the stability of the resulting preparation (in particular, the stability of the lipid emulsion).
Formation of precipitates or destabilization of the lipid emulsion could result in vascular occlusion
Vascular-access infection and sepsis are complications that may occur in patients receiving parenteral nutrition, particularly in case of poor maintenance of catheters, immunosuppressive effects of illness or drugs. Careful monitoring of signs, symptoms, and laboratory tests results for fever/chills, leukocytosis, technical complications with the access device, and hyperglycaemia can help recognize early infections. Patients who require parenteral nutrition are often predisposed to infectious complications due to malnutrition and/or their underlying disease state.
Monitor water and electrolyte balance, serum osmolarity, serum triglycerides, acid-base balance, blood glucose, liver and kidney function tests, coagulation tests and blood count, including platelets throughout treatment.
Metabolic complications may occur if the nutrient intake is not adapted to the patient's requirements, or the metabolic capacity of any given dietary component is not accurately assessed. Serum triglyceride concentrations and the ability of the body to remove lipids must be checked regularly.

Serum triglyceride concentrations must not exceed 3 mmol/l during the infusion. These concentrations should not be determined before a minimum of a 3-hour period of continuous infusion.
If a lipid metabolism abnormality is suspected, it is recommended that tests be performed daily by measuring serum triglycerides after a period of 5 to 6 hours without administering lipids. In adults, the serum must be clear in less than 6 hours after stopping the infusion containing the lipid emulsion. The next infusion should only be administered when the serum triglyceride concentrations have returned to normal values.
Fat overload syndrome has been reported with the administration of OLICLINOMEL and similar products.
In the event of hyperglycaemia, the infusion rate of OLICLINOMEL must be adjusted and/or insulin administered.
While OLICLINOMEL N4-550, N4-550E may be administered through a peripheral vein, thrombophlebitis may develop.
The catheter insertion site must be monitored daily for local signs of thrombophlebitis.
When making additions, the final osmolarity of the mixture must be measured before administration.
Although there is a natural content of trace elements and vitamins in the product, the levels are insufficient to meet body requirements and these should be added to prevent deficiencies from developing.
Caution should be exercised in administering OLICLINOMEL to patients with increased osmolarity, adrenal insufficiency, heart failure or pulmonary dysfunction.
Refeeding severely undernourished patients may result in the refeeding syndrome that is characterized by the shift of potassium, phosphorus, and magnesium intracellularly as the patient becomes anabolic. Thiamine deficiency and fluid retention may also develop. Careful monitoring and slowly increasing nutrient intakes while avoiding overfeeding can prevent these complications. This syndrome has been reported with similar products.
Do not connect bags in series in order to avoid the possibility of air embolism due to residual air contained in the primary bag.

Hepatic Insufficiency
Use with caution in patients with hepatic insufficiency because of the risk of developing or worsening neurological disorders associated with hyperammonaemia.

Renal Insufficiency
Use with caution in patients with renal insufficiency, particularly if hyperkalaemia is present, because of the risk of developing or worsening metabolic acidosis and hyperazotemia if extra-renal waste removal is not being performed.

Hematologic
Use with caution in patients with coagulation disorders and anaemia.

Endocrine and Metabolism
Use with caution in patients with:
- Metabolic acidosis. Administration of carbohydrates is not recommended in the presence of lactic acidosis. Regular clinical and laboratory tests are required.
- Diabetes mellitus. Monitor glucose concentrations, glucosuria, ketonuria and, where applicable adjust insulin dosages.
- Hyperlipidaemia due to the presence of lipids in the emulsion for infusion. Regular clinical and laboratory tests are required.
- Amino acid metabolism disorders

Extravasation
Catheter site should be monitored regularly to identify signs of extravasation

Interactions with other medicinal products and other forms of interactions
For Oliclinomel formulations with electrolytes: Precipitation of ceftriaxone-calcium can occur when ceftriaxone is mixed with calcium-containing solutions in the same intravenous administration line This emulsion for infusion must not be administered simultaneously with blood through the same infusion tubing because of the possibility of pseudoagglutination.
OLICLINOMEL contains vitamin K, naturally present in lipid emulsions. The amount of Vitamin K in recommended doses of OLICLINOMEL are not expected to influence effects of coumarin derivatives.
This emulsion for infusion must not be administered simultaneously with blood through the same infusion tubing because of the possibility of pseudoagglutination.

Oliclinomel with electrolytes: Due to the potassium content of OLICLINOMEL, special care should be taken in patients treated with potassium sparing diuretics (e.g., amiloride, spironolactone, triamterene), angiotensin converting enzyme (ACE) inhibitors, angiotensin II receptor antagonists or the immunosuppressants tacrolimus and cyclosporine in view of the risk of hyperkalemia.

Fertility, pregnancy and lactation
There are not at present sufficient relevant clinical findings to assess the tolerability of the ingredients in OLICLINOMEL in women who are pregnant or breast-feeding.

Shelf life
2 years if the overwrap is not damaged.
It is recommended that the product is used immediately after the non-permanent seals between the 3 compartments have been opened.
For the Quantitative Composition, Posology, incompatibilities and undesirable effects, please refer to the full SPC.
Medicinal products are subject to medical subscription.

Date of preparation: Jan 2019

PRIMENE 10%

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NAME OF THE MEDICINAL PRODUCT

PRIMENE 10%

QUALITATIVE AND QUANTITATIVE COMPOSITION

Each litre of the infusion solution contains:
L-Isoleucine 6.70g ; L-Leucine 10.00g ; L-Valine 7.60g ; L-Lysine 11.00g ; L-Methionine 2.40g ; L-Phenylalanine 4.20g ; L-Threonine 3.70g ; L-Tryptophan 2.00g ; L-Arginine 8.40g ; L-Histidine 3.80g ; L-Alanine 8.00g ; L-Aspartic Acid 6.00g ; L-Cysteine 1.89g; L-Glutamic Acid 10.00g ; Glycine 4.00g ; L-Proline 3.00g ; L-Serine 4.00g ;L-Tyrosine 0.45g ; L-Ornithine Hydrochloride 3.18g ; Taurine 0.60g
In a formulation also containing L-Malic acid, as described in the application.

CLINICAL PARTICULARS

Therapeutic Indications

Primene 10% is indicated in 1) children and infants 2) neonates, at term or premature, of normal or low birth weight when oral or enteral nutrition is impossible, insufficient or contraindicated.

Posology and Method of Administration

Dosage depends on the age, weight and protein catabolism of the child:
The usual range is: 15 – 35 ml of Primene 10%/kg/24 hours
The infusion rate should not exceed 0.05 ml/kg/min.
Recommended flow rates: Neonates and Infants: continuous infusion (over 24 hours).
Children: continuous infusion (over 24 hours) or cyclic infusion (over about 12 hours in 24).
The flow rate should be adjusted according to the dosage, the characteristics of the infusion solution, the total volume intake per 24 hours and the infusion duration.
Route of administration: Primene 10% alone should be administered in a central vein.
Primene 10% in co-administration or as a mixture should be administered according to the final osmolarity of the solution infused, in a peripheral or central vein.
Mode of administration: Primene 10% is usually administered with a source of energy appropriate for the needs of the child, either by co-administration or as a mixture.
Primene 10% may be included in the composition of nutritive mixtures combining carbohydrates, lipids, electrolytes, trace elements and vitamins to meet nutrient needs and prevent deficiencies and complications from developing, when compatibility and stability are known.

Contraindications

- Hypersensitivity to any of the active substances or to any of the excipients
- Congenital abnormality in the metabolism of one or more amino-acids.

Special Warnings and Special Precautions for Use

Primene 10% must be used with caution where severe restriction of water intake is necessary, e.g., cardiac, respiratory or renal failure. In cases of renal insufficiency, the nitrogen intake must be adjusted according to the Childs renal clearance. Caution should be exercised in cases of hepatic insufficiency with careful monitoring of blood ammonia levels. Careful monitoring of the infusion and of the clinical and biochemical conditions of the child is essential. In view of its osmolality, Primene 10% should not be infused alone into a peripheral vein. When used in neonates and children below 2 years of age, Primene should be protected from ambient light until administration is completed.

Undesirable effects

From post-marketing reports: Immune system disorders: Hypersensitiviy reaction manifested by face oedema, eyelid oedema, rash- frequency not known.
Adverse reactions reported with parenteral amino acid products include: azotaemia, hyperammonaemia, anaphylactic/ anaphylactoid reactions, hepatic failure, raised blood urea nitrogen in children with renal insufficiency, metabolic acidosis, pulmonary vascular precipitates, necrosis at the infusion site, infusion site thrombophlebitis, etc.
For a detailed posology, Special warnings and precautions, incompatibilities, interactions, pharmacological properties and pharmaceutical particulars, please refer to the full SPC. Medicinal products are subject to medical prescription

Jan 2020

SYNTHAMIN

SYNTHAMIN AMINO ACID INTRAVENOUS INFUSIONS PRESCRIBING INFORMATION

Name and composition: Synthamin amino acid intravenous infusions.

Total Amino Acids{% w/v)	5.5	8.5	10.0	5.5	8.5	10.0
L-Leucine	4.02g	6.20g	7.30g	4.02g	6.20g	7.30g
L-Phenylalanine	3.08g	4.76g	5.60g	3.08g	4.76g	5.60g
L-Methionine	2.20g	3.40g	4.00g	2.20g	3.40g	4.00g
L-Lysine (added as the hydrochloride salt)	3.19g	4.93g	5.80g	3.19g	4.93g	5.80g
L-lsoleucine	3.30g	5.10g	6.00g	3.30g	5.10g	6.00g
L-Valine	3.19g	4.93g	5.80g	3.19g	4.93g	5.80g
L-Histidine	2.64g	4.08g	4.80g	2.64g	4.08g	4.80g
L-Threonine	2.31g	3.57g	4.20g	2.31g	3.57g	4.20g
L-Tryptophan	0.99g	1.53g	1.80g	0.99g	1.53g	1.80g
L-Alanine	11.38g	17.60g	20.70g	11.38g	17.60g	20.70g
Amino acetic acid (glycine)	5.66g	8.76g	10.30g	5.66g	8.76g	10.30g
L-Arginine	6.32g	9.78g	11.50g	6.32g	9.78g	11.50g
L-Proline	3.74g	5.78g	6.80g	3.74g	5.78g	6.80g
L-Tyrosine	0.22g	0.34g	0.40g	0.22g	0.34g	0.40g
L-Serine	2.75g	4.25g	5.00g	2.75g	4.25g	5.00g
Sodium Acetate	4.31g	5.94g	6.80g			
Dibasic Potassium Phosphate	5.22g	5.22g	5.22g			
Sodium Chloride	2.24g	1.54g	1.17g			
Magnesium Chloride	1.02g	1.02g	1.02g			

Indication: A source of L-amino acids for use in parenteral nutrition regimens for patients unable to absorb adequate oral nutrition. **Dosage and Route:** For intravenous use through a central venous catheter. The total daily dose of the solution depends upon the patient's metabolic requirement and clinical response. Administer with non-protein energy source. Consider nitrogen balance. Recommended daily dietary allowances for protein range from 2.2g/kg of body weight for infants to 56g for adults weighing 70kg. The dosage of parenteral nutrition should be individually tailored to the amino acid, electrolyte and energy requirements of the patient. **Side effects:** *See Summary of Product Characteristics for detail.* Unknown frequency - Anaphylactic reactions (including shock), hypersensitivity, pulmonary vascular precipitate. Adverse reactions attributed to parenteral amino acid products include azotemia and to parenteral nutrition with amino acid components include hepatic failure, hepatic cirrhosis, hepatic fibrosis, cholestasis, cholecystitis and cholelithiasis. **Precautions:** Anaphylactic / anaphylactoid and other hypersensitivity / infusion reactions have been reported - stop infusion immediately if signs / symptoms develop. Pulmonary vascular precipitates have been reported, some with fatal outcomes - excessive addition of calcium and phosphate increases risk. If signs of pulmonary distress stop infusion and initiate medical evaluation. Solution, infusion set and catheter should be checked for precipitates. Infection and sepsis may occur particularly in patients predisposed to infectious complications. Careful symptomatic and laboratory monitoring can help recognise early infections. Heightened emphasis on aseptic technique in catheter placement, maintenance and nutritional formula preparation can decrease occurrence of septic complications. Careful monitoring and slowly increasing fluid intake while avoiding overfeeding can prevent complications of refeeding syndrome. The solution is hypertonic and liable to cause venous irritation at the site of injection if administered peripherally. Monitoring should be appropriate to the patient's clinical situation and condition, and should include determinations of water and electrolyte balance, serum osmolarity, acid / base balance, blood glucose monitoring and liver and kidney function. Amino acid solutions should be used with caution in patients with pre-existing liver disease or liver insufficiency. Increase in blood ammonia levels and hyperammonemia may occur in patients receiving amino acid solutions, consider discontinuation should symptoms develop. In some patients this may indicate the presence of a congenital disorder of amino acid metabolism or hepatic insufficiency. Blood ammonia should be measured frequently in newborns and infants to detect hyperammonem, which may indicate the presence of a congenital abnormality of amino acid metabolism. Mixtures containing amino acids may precipitate acute folate deficiency and folic acid should be administered daily. An adequate source of non-protein energy should be administered concurrently if parenterally administered amino acids are to be retained by the body and utilised for protein synthesis. Caution in patients with pulmonary oedema, cardiac and renal insufficiency. There are no adequate data from the use of Synthamin in pregnant or lactating women. Healthcare Professionals should carefully consider the potential risks and benefits for each specific patient before administering Synthamin. **Contraindications:** Known hypersensitivity to any of the active substances, excipients, components or container. Congenital abnormality of amino acid metabolism. Synthamin (with electrolytes) must not be administered to patients with clinically significant elevation of plasma concentrations of sodium, potassium, magnesium and / or phosphorous. **Interactions:** Do not add other medicinal products or substances without first confirming their compatibility and the stability of the resulting preparation. Administer Synthamin (with electrolytes) with caution in patients treated with agents or products that can cause or increase the risk of hyperkalaemia. **Overdose:** Hypervolemia, electrolyte disturbances, acidosis and / or azotemia may occur. In case of overdose, stop infusion immediately. Further intervention may be required if medically indicated. **Legal category:** POM

Updated: April 2018.

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