

# OMAPONE®

OMAPONE® provides various options considering individual patient's condition.

### OMAPONE® Composition

Composition (per 1,000 mL)		OMAPONE® Inj.			OMAPONE® Peri Inj.						
Total Volume		986 mL	1477 mL	1970 mL	362 mL	500 mL	724 mL	952 mL	1448 mL	1904 mL	
Glucose	% in compartment	42%	42%	42%	13%	13%	13%	13%	13%	13%	
	% after mixing	13%	13%	13%	7%	7%	7%	7%	7%	7%	
	Volume (ml)	298	446	595	197	272	394	518	788	1036	
	Glucose Anhydrous(Dextrose) (g)	125	187	250	26	52	52	68	103	135	
<b>Approx. Calories (kcal)</b>		<b>500 kcal</b>	<b>748 kcal</b>	<b>1,000 kcal</b>	<b>103 kcal</b>	<b>142 kcal</b>	<b>206 kcal</b>	<b>270 kcal</b>	<b>412 kcal</b>	<b>540 kcal</b>	
Lipid	% in compartment	20%	20%	20%	20%	20%	20%	20%	20%	20%	
	% after mixing	4%	4%	4%	3%	3%	3%	3%	3%	3%	
	Volume (ml)	188	281	375	51	70	102	134	204	268	
	Lipid (g)	37.6	56.3	75.1	10.2	14.1	20.4	26.8	40.8	53.6	
	SO - Soybean oil, refined (g)	11.3	16.9	22.5	3.1	4.2	6.2	8.1	12.3	16.1	
	MCT - Medium-chain triglycerides (g)	11.3	16.9	22.5	3.1	4.2	6.2	8.1	12.3	16.1	
	OO - Olive oil, refined (g)	9.4	14.1	18.8	2.5	3.5	5.1	6.7	10.1	13.4	
	FO - Fish oil, rich in ω-3 (g)	5.6	8.4	11.3	1.5	2.1	3.1	4.0	6.1	8.0	
	Purified egg phospholipid (g)	2.3	3.4	4.5	0.6	0.8	1.2	1.6	2.4	3.2	
	Glycerol (g)	4.7	7.0	9.4	1.275	1.76	2.55	3.35	5.10	6.70	
	α-Tocopherol (g)	0.036	0.055	0.073	0.010	0.014	0.020	0.026	0.040	0.052	
<b>Approx. Calories (kcal)</b>		<b>378 kcal</b>	<b>565 kcal</b>	<b>754 kcal</b>	<b>102 kcal</b>	<b>142 kcal</b>	<b>205 kcal</b>	<b>269 kcal</b>	<b>410 kcal</b>	<b>538 kcal</b>	
Amino acids	% in compartment	10%	10%	10%	10%	10%	10%	10%	10%	10%	
	% after mixing	5.1%	5.1%	5.1%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	
	Volume (ml)	500	750	1000	114	158	228	300	456	600	
	Amino acids (g)	50.1	75.1	100.1	11.4	15.8	22.8	30.0	45.6	60.0	
	Nitrogen (g)	8	12	16	1.9	2.6	3.7	4.9	7.4	9.8	
	<b>Approx. Calories (kcal)</b>		<b>200 kcal</b>	<b>300 kcal</b>	<b>400 kcal</b>	<b>46 kcal</b>	<b>63 kcal</b>	<b>91 kcal</b>	<b>120 kcal</b>	<b>183 kcal</b>	<b>240 kcal</b>
	EAA/TAA (%)	41%	41%	41%	41%	41%	41%	41%	41%	41%	
	BCAA/TAA(%)	19%	19%	19%	19%	19%	19%	19%	19%	19%	
	BCAA/EAA(%)	45%	45%	45%	46%	46%	46%	46%	46%	46%	
	Alanine (g)	7.0	10.5	14.0	1.6	2.2	3.2	4.2	6.4	8.4	
	Arginine (g)	6.0	9.0	12.0	1.4	1.9	2.8	3.6	5.5	7.2	
	Glycine (g)	5.5	8.2	11.0	1.3	1.7	2.6	3.3	5.1	6.6	
	Histidine (g)	1.5	2.2	3.0	0.3	0.5	0.7	0.9	1.3	1.8	
	Isoleucine (g)	2.5	3.8	5.0	0.6	0.8	1.2	1.5	2.3	3.0	
	Leucine (g)	3.7	5.6	7.4	0.8	1.2	1.7	2.2	3.4	4.4	
	Lysine (g)	3.3	5.0	6.6	0.8	1.0	1.5	2.0	3.0	4.0	
	Methionine (g)	2.2	3.2	4.3	0.5	0.7	1.0	1.3	1.9	2.5	
	Phenylalanine (g)	2.6	3.9	5.1	0.6	0.8	1.2	1.6	2.3	3.1	
	Proline (g)	5.6	8.4	11.2	1.3	1.7	2.6	3.4	5.1	6.7	
	Serine (g)	3.2	4.9	6.5	0.8	1.0	1.5	2.0	3.0	3.9	
	Taurine (g)	0.50	0.75	1.00	0.12	0.2	0.23	0.30	0.46	0.60	
	Threonine (g)	2.2	3.3	4.4	0.5	0.7	1.0	1.3	2.0	2.6	
Tryptophan (g)	1.0	1.5	2.0	0.2	0.3	0.5	0.6	0.9	1.2		
Tyrosine (g)	0.2	0.3	0.4	0.04	0.1	0.09	0.12	0.18	0.24		
Valine (g)	3.1	4.6	6.2	0.7	1.0	1.5	1.9	2.9	3.7		
Sodium (Na <sup>+</sup> )	40	60	80	9	12	18	24	36	48		
Potassium (K <sup>+</sup> )	30	45	60	7	10	14	18	28	36		
Magnesium (Mg <sup>2+</sup> )	5.0	7.5	10.0	1.2	1.6	2.3	3.0	4.6	6.0		
Calcium (Ca <sup>2+</sup> )	2.5	3.8	5.0	0.6	0.8	1.2	1.5	2.3	3.0		
Phosphate (PO <sub>4</sub> <sup>3-</sup> )	12.0	19.0	25.0	3.0	4.1	6.0	7.8	11.9	15.6		
Chloride (Cl <sup>-</sup> )	35	52	70	8.0	11.2	16.0	21.0	32.0	42.0		
Acetate (CH <sub>3</sub> COO <sup>-</sup> )	104	157	209	24.0	32.8	48.0	62.5	96.0	125.0		
Sulfate (SO <sub>4</sub> <sup>2-</sup> )	5.0	7.5	10.0	1.2	1.6	2.3	3.1	4.6	6.1		
Zinc (Zn <sup>2+</sup> )	0.04	0.06	0.08	0.01	0.01	0.02	0.03	0.03	0.05		
*NPC (kcal)	878	1,313	1,754	205	282	411	539	822	1,078		
*NPC/N	110	109	110	111	111	111	110	111	110		
Osmolarity (mosm/l)	1,500	1,500	1,500	850	850	850	850	850	850		
pH	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6		
<b>Total Calories (kcal)</b>		<b>1,078</b>	<b>1,613</b>	<b>2,154</b>	<b>251</b>	<b>345</b>	<b>502</b>	<b>659</b>	<b>1,004</b>	<b>1,318</b>	
<b>Approx. Total Calories (kcal)</b>		<b>1,100</b>	<b>1,600</b>	<b>2,200</b>	<b>250</b>	<b>350</b>	<b>500</b>	<b>650</b>	<b>1,000</b>	<b>1,300</b>	

Reference 1. Mayer K et al. Curr Opin Clin Nutr Metab Care 2006 Mar; 9(2): 140-8. 2. Grimm H et al. Ann Nutr Metab. 2006; 50(3): 253-259. 3. Mercier N et al. Ann Nutr Metab. 2006; 50(3): 253-259. 4. Greco I et al. Clin Nutr 2003; 22 (Suppl):S23. 5. Jiang ZM et al. Br J Surg. 2010 Jun; 97(6): 804-809. 6. Weiss G et al. Br J Nutr. 2002 Jan; 87 (Suppl 1):S89-94. 7. Schade I et al. Crit Care 2008; 12 (Suppl 2):S96-97. 8. Antebi H et al. JPN 2004; 28: 142-148. 9. Goulet O et al. Curr Opin Organ Transplant 2010; 14(3): 256-261. 10. Tomatis E et al. Journal of Pediatric Gastroenterology & Nutrition 2010; 51: 514-521. 11. Cotin I et al. Curr Opin Clin Nutr Metab Care. 2008 May; 11(3): 297-302. 12. Cooper A et al. J Pediatr Surg. 1984 Aug; 19(4): 462-466. 13. Wang WY et al. JPN J Parenter Enteral Nutr. 1991; 15(3): 294-297. 14. Redmond HP et al. Nutrition 1998 Jul-Aug; 14(7-8): 599-604. 15. Rostan EF et al. Int J Dermatol. 2002 Sep; 41(9): 606-611. 16. Carpenter Y in: Scoboka L. "Basis in Clinical Nutrition", 3rd edition. Galen 2004; 153-156. 17. Singer P et al. Clin Nutr. 2009 Aug; 28(4): 387-400. 18. Braga M et al. Clin Nutr. 2009 Aug; 28(4):378-386. 19. Morion et al. Clin Nutr. 2009; 16: 49. 20. Furst P et al. Clin Nutr. 2000 Feb; 19(1): 7-14. 21. Adolph M et al. Clin Nutr. 2001; 20: 11-14. 22. Grimm H et al. JPN 1994; 18: 417-421. 23. Grimm H et al. Langenbecks Arch Surg 2001; 368: 369-376. 24. Macle J et al. Gastroenterology. 1981 Jan; 80(1): 103-107. 25. Tulikoura I et al. Scand J Gastroenterol. 1982 Mar; 17(2): 177-185. 26. Tappy L et al. Crit Care Med. 1998 May; 26(5): 860-867. 27. Stoner HB et al. Br J Surg. 1963 Jan; 70(1): 32-35.

# OMAPONE® TPN

(Containing Fish Oil, 3<sup>rd</sup> Generation TPN)



OMAPONE® is the safe and convenient 3<sup>rd</sup> generation of TPN which has been developed with advanced technology of HK inno.N

### Innovation

HK inno.N's self developed Hanger Bar helps

- ✓ easily distinguish the uses for **peripheral veins** and **central veins**, thus prevent from administration error.
- ✓ the bag consistently maintain its shape, thus check any residual amount easily.

Peri (Blue)



Central (Red)



### Safety

- ✓ With the application of "Safe-Flex® technology" developed by HK inno.N, sterilized tabs and ports make it safer to use without additional sterilization.
- ✓ With improved port functions, the liquid does not leak even when removing the needle.

### Simplicity

- ✓ Users can easily identify the product through double sided transparent outer pouch design of the bag.
- ✓ Different color design and arrow directions of each port make it easier to distinguish between Infusion Port and Additive Port



### Convenience

After removing the outer pouch, break up the partition of the chambers by rolling up from the hanger bar. Then mix and use.

Open



Break



Mix



Use

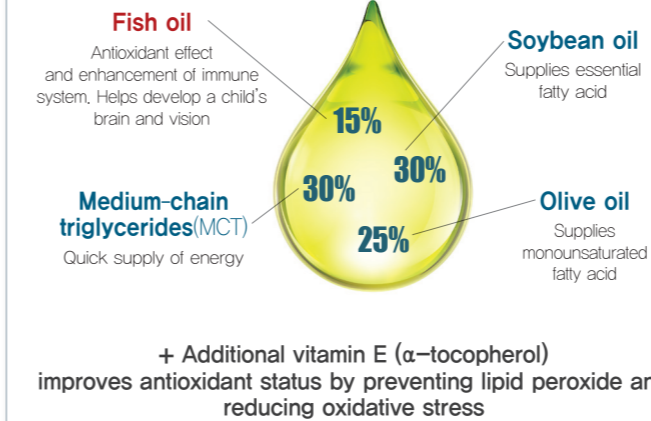


OMAPONE® is the 1<sup>st</sup> generic of SmofKaviben (3-in-1 mix).

### Composition

#### Lipid emulsion

Composed of 4 optimized lipids



#### Glucose

Supplies energy through an optimized glucose-lipid ratio\*

#### Amino acids with Electrolytes

- ✓ Supplies optimized content of amino acids.
- ✓ Contains Taurine, which promotes bile production and regulates immune system<sup>13-14</sup>
- ✓ Contains Zinc, which is essential for injury recovery and immune response<sup>9</sup>

### OMAPONE® is in line with recommendation for Parenteral Nutrition

OMAPONE with an ω-6:ω-3 fatty acid ratio of 2.5:1 perfectly meets the recommended range.

#### ESPEN® Guidelines on Parenteral Nutrition : Intensive Care<sup>17</sup>

- Lipids should be an integral part on PN for energy and to ensure essential fatty acid provision in long-term ICU patients. (Grade B)
- **Addition of EPA and DHA** to lipid emulsions has demonstrable effects on cell membranes and inflammatory processes. **Fish oil-enriched lipid emulsions probably decrease length of stay** in critically ill patients. (Grade B)

#### ESPEN® Guidelines on Parenteral Nutrition : Surgery<sup>18</sup>

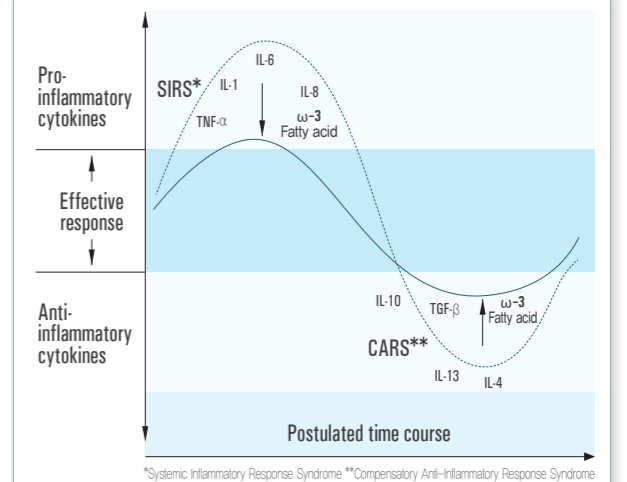
- The optimal parenteral nutrition regimen for critically ill surgical patients should probably include **supplemental ω-3 fatty acids**. (GRADE C)

#### Expert opinions

- Experts recommend an ω-6:ω-3 fatty acid ratio of 4:1 to 2:1<sup>19-23</sup>

\*The European Society for Clinical Nutrition and Metabolism

### Effects of fish oil based ω-3 fatty acids on immune function<sup>1-7</sup>

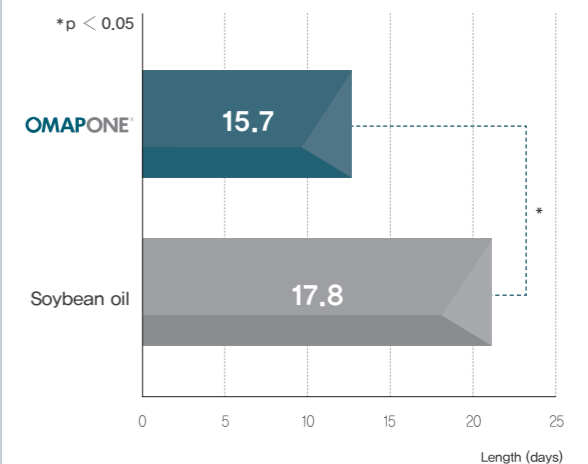


- ✓ Administration of ω-3 fatty acids from fish oil leads to more balanced immune response which may result in a faster resolution of inflammation and recovery

Pro-inflammatory cytokines ↓ Anti-inflammatory cytokines ↑

### Favourable clinical outcome with the 3<sup>rd</sup> generation of lipid emulsion containing fish oil.<sup>1-7</sup>

Length of hospital stay after 5 days of TPN in adult post operative patients<sup>2</sup>



- ✓ Significantly shorter length of hospital stay compared to a soybean oil emulsion<sup>4,6</sup>
- ✓ Significantly reduce reoperation rates in post operative patients.<sup>4,6</sup>