



- ZeroVIL is a food for special medical purposes for use in the dietary management of disorders in metabolism of branched chain amino acids, e.g. Maple Syrup Urine Disease (MSUD)
- protein supplement free of Valine, Isoleucine and Leucine (VIL)
- ZeroVIL available for 3 age groups (K, J, A):  
ZeroVIL K for infants/ children from 4 months to 6 years of age  
ZeroVIL J for children/ adolescents from 7 to 14 years of age  
ZeroVIL A for adolescents from 15 years of age and adults
- highly concentrated – low in energy – no carbohydrate – no fat
- pure L-amino acids – and vitamins, minerals and trace elements in adequate amounts
- in 500 g tins or in convenient sachets containing 5 g (K) respectively 10 g (J, A) protein equivalent

### Definition and Indication

ZeroVIL is a mixture of pure L-amino acids free of Valine, Isoleucine and Leucine (VIL), enriched with vitamins, minerals and trace elements according to the needs of the age group. ZeroVIL is a highly concentrated amino acid supplement – low in energy, without carbohydrate and fat.

ZeroVIL is a food for special medical purposes to be used in the dietary management of disorders in metabolism of branched chain amino acids, e.g. Maple Syrup Urine Disease (MSUD). ZeroVIL is available in 3 age-adapted stages as follows:

- ZeroVIL K for infants/ children from 4 months to 6 years of age
- ZeroVIL J for children/ adolescents from 7 to 14 years of age
- ZeroVIL A for adolescents from 15 years of age and adults

### Dosage and Directions for use

The daily dosage of ZeroVIL depends on age, body weight and individual medical condition/ protein tolerance and is determined under medical supervision. The daily amount of ZeroVIL should be taken in 3 to 5 single portions and at best along with precalculated amounts of other foods, considering the individual protein/ Leucine tolerance. The diet must contain adequate amounts of natural protein, carbohydrate and fat.

### Preparation

For the preparation of a standard solution fill 100 - 150 ml of still water into a shaker. For ZeroVIL K 50 ml might be sufficient. Add

1 sachet/ 6,9 g ZeroVIL K or

1 sachet/ 13,2 g ZeroVIL J or

1 sachet/ 12,9 g ZeroVIL A

shake, ready! ZeroVIL can also be prepared with more water, if desired. Always prepare ZeroVIL freshly. Please consider the individually prescribed daily dosage.

### The Nutrients in ZeroVIL

#### Protein

The protein compound consists of highly purified L-amino acids and contains balanced amounts of indispensable (with the exception of L-Valine, L-Isoleucine and L-Leucine), conditionally indispensable and dispensable amino acids.

ZeroVIL replaces that part of the protein in the diet which may not be taken up by natural foods.

### Amino acid pattern per 100 g ZeroVIL

	K	J	A		K	J	A
L-Alanine	g 6,0	6,2	6,4	L-Lysine	g 5,8	6,0	5,9
L-Arginine	g 5,1	5,3	5,7	L-Methionine	g 2,0	2,0	2,1
L-Aspartic acid	g 12,3	13,3	13,5	L-Phenylalanine	g 3,7	3,9	4,1
L-Cystine	g 3,3	3,4	2,3	L-Proline	g 10,1	10,5	10,0
L-Glutamic acid	g 7,8	7,9	4,8	L-Serine	g 6,5	6,8	6,2
L-Glutamine	g 4,6	4,4	8,9	L-Threonine	g 4,7	4,9	5,0
Glycine	g 6,2	6,6	7,8	L-Tryptophan	g 1,8	1,9	2,1
L-Histidine	g 2,5	2,6	2,6	L-Tyrosine	g 4,3	4,5	5,2
L-Isoleucine	g –	–	–	L-Valine	g –	–	–
L-Leucine	g –	–	–				

### Carbohydrate and Fat

ZeroVIL contains neither carbohydrate nor fat. Thus the intake of both nutrients can be covered by natural foods in line with a dietary schedule.

### Vitamins, Minerals and Trace elements (Micronutrients)

In the dietary management of disorders in metabolism of branched chain amino acids, e.g. Maple Syrup Urine Disease (MSUD) the intake of protein is restricted and has to be carefully calculated. The variety of natural protein sources is severely limited. A lot of natural suppliers for important micronutrients are therefore missing. This has been considered in the development of the ZeroVIL formulation, in line with current reference values.

### INGREDIENTS

For nutrition specialists the list of ingredients is provided on our website [www.metax.org](http://www.metax.org).

To enter this particular area of the website, registration as specialist is necessary. The process how to do so is described on our website.

NUTRITION INFORMATION	ZeroVIL K		ZeroVIL J		ZeroVIL A	
	100 g	6,9 g/ 1 sachet	100 g	13,3 g/ 1 sachet	100 g	12,9 g/ 1 sachet
Energy	1231	85	1275	170	1313	170
	kcal					
	290	20	300	40	309	40
Fett	0	0	0	0	0	0
of which saturates	0	0	0	0	0	0
Carbohydrate	0	0	0	0	0	0
of which sugars	0	0	0	0	0	0
Protein eqv.	72	5	75	10	77	10
Amino acids	87	6	90	12	93	12
Salt	2,6	0,18	0	0	0	0

Vitamins		g protein			g protein			g protein		
		100 g	6,9 g/ 1 sachet	15 g	100 g	13,3 g/ 1 sachet	12 g	100 g	12,9 g/ 1 sachet	16 g
Vitamin A	µg	1100	76	15	880	117	12	1200	155	16
Vitamin D3	µg	30	2	0,4	23	3	0,3	9	1,2	0,12
Vitamin E	mg	26	1,8	0,36	20	2,7	0,27	19	2,5	0,25
Vitamin K1	µg	67	5	1	75	10	1	85	11	1
Vitamin C	mg	130	9	1,8	100	13	1,3	100	13	1,3
Thiamin (Vit. B1)	mg	2,6	0,18	0,036	2,6	0,35	0,035	2	0,25	0,025
Riboflavin (Vit. B2)	mg	3	0,23	0,05	3	0,4	0,04	2	0,3	0,03
Niacin	mg	33	2,3	0,5	33	4	0,4	31	4	0,4
Vitamin B6	mg	3	0,23	0,05	3,4	0,45	0,045	2	0,3	0,03
Folic acid	µg	557	38	8	302	40	4	696	90	9
Vitamin B12	µg	7	0,5	0,1	7	0,9	0,09	7	0,9	0,09
Biotin	µg	59	4	0,8	300	40	4	193	25	2,5
Pantothenic acid	mg	15	1	0,2	14	2	0,2	12	1,6	0,16

Minerals		g protein			g protein			g protein		
		100 g	6,9 g/ 1 sachet	15 g	100 g	13,3 g/ 1 sachet	12 g	100 g	12,9 g/ 1 sachet	16 g
Potassium	mg	1857	128	26	1875	250	25	1160	150	15
Chloride	mg	637	44	9	0	0	0	0	0	0
Calcium	mg	2228	154	31	1800	240	24	1190	154	15
Phosphorus	mg	1188	82	16	1001	133	13	787	102	10
Magnesium	mg	334	23	5	405	54	5	387	50	5

Trace elements		g protein			g protein			g protein		
		100 g	6,9 g/ 1 sachet	15 g	100 g	13,3 g/ 1 sachet	12 g	100 g	12,9 g/ 1 sachet	16 g
Iron	mg	33	2,3	0,5	27	3,6	0,36	23	3	0,3
Zinc	mg	27	2	0,4	27	3,6	0,36	20	2,6	0,26
Copper	mg	3	0,2	0,04	3	0,4	0,04	2	0,25	0,025
Manganese	mg	6	0,4	0,08	6	0,8	0,08	5	0,7	0,07
Fluoride	mg	1,1	0,1	0,015	1,1	0,15	0,015	0	0	0
Selenium	µg	54	4	0,7	90	12	1,2	56	7	0,7
Chromium	µg	156	11	2	150	20	2	77	10	1
Molybdenum	µg	117	8	1,6	113	15	1,5	116	15	1,5
Iodine	µg	386	27	5	338	45	4,5	271	35	3,5

#### FURTHER NUTRITION INFORMATION

Sodium	mg	1050	72	14	0	0	0	0	0	0
L-Carnitine	mg	67	5	1	68	9	0,9	54	7	0,7
Choline	mg	297	20	4	300	40	4	193	25	2,5
myo-Inositol	mg	349	24	5	353	47	5	116	15	1,5
Taurine	mg	74	5	1	75	10	1	0	0	0

	tin	box	tin	box	tin	box
Delivery Unit	2 x 500 g tins =1000 g	4 boxes à 25 x 6,9 g sachets = 690 g	2 x 500 g tins =1000 g	4 boxes à 25 x 13,3 g sachets = 1330 g	2 x 500 g tins =1000 g	4 boxes à 25 x 12,9 g sachets = 1290 g
Article Number	xx-001-30511	xx-001-30518	xx-001-30561	xx-001-30568	xx-001-30611	xx-001-30618
Delivery to	Pharmacies, clinics					
Storage	Store in a cool, dry place.					