

# Product Information

– for professionals only –



## Zero VIL Piccos

SLOW RELEASE

### In Short

- ZeroVIL Piccos are a Food for Special Medical Purposes (FSMP) for use in the dietary management of disorders in metabolism of branched chain amino acids, e.g. Maple Syrup Urine Disease (MSUD)
- prolonged release of amino acids – Slow Release
- in form of very small tablets/pellets – coated
- suitable from 3 years of age
- highly concentrated protein supplements free of Valine, Isoleucine and Leucine (VIL)
- highly purified L-amino acids
- with vitamins, minerals and trace elements
- low in calories: no carbohydrate – small amount of fat
- very easy to swallow
- ready to use – ideal also for “ready to go”
- neutral in smell and taste
- in resealable and environmentally friendly plastic container (Securibox®), with dosing aid for individual and flexible dosing
- 1 dosing aid filled with 11,25 ml  $\triangleq$  8,4 g product  $\triangleq$  5 g protein eqv.
- 1 Securibox® contains 100 g ZeroVIL Piccos  $\triangleq$  60 g protein eqv.

### Product Profile

ZeroVIL Piccos are a highly concentrated mixture of highly purified L-amino acids free of Valine, Isoleucine and Leucine (VIL) in form of very small tablets/pellets. The amino acid mixture is embedded in sodium alginate. This leads to a slow/prolonged release of amino acids within the gastrointestinal tract – Slow Release.

#### GOOD TO KNOW Slow Release

The individual amino acids are gradually released within the gastrointestinal tract over an extended period of time. This contributes to a digestion of the amino acids similar to that of natural protein.  
(see p. 2)

ZeroVIL Piccos do not contain carbohydrate and only a small amount of fat, thus low in calories.

ZeroVIL Piccos are a pressed and coated protein supplement.

ZeroVIL Piccos allow a tasteless intake of the amino acid mixture. They do not leave an unpleasant aftertaste and do not cause breath malodour or belching.

The very small tablets/pellets can be consumed discreetly and directly, no preparation necessary.

ZeroVIL Piccos offer more flexibility, e.g.

concerning intake outside the home and with regard to a wider choice of drinks suitable for intake, without drawing attention to the diet – a big plus with regard to good compliance.

ZeroVIL Piccos provide an alternative for all those patients who wish to benefit from the advantages of our ZeroVIL minis but cannot swallow them.

Since packed in a plastic container (Securibox®) with a dosing aid for individual and flexible measuring, handling is particularly easy:

1 dosing aid filled with 11,25 ml  $\triangleq$  8,4 g product  $\triangleq$  5 g protein equivalent.  
1 Securibox® contains 100 g ZeroVIL Piccos  $\triangleq$  60 g protein equivalent.

ZeroVIL Piccos are supplemented with vitamins, minerals and trace elements.

Suitable from 3 years of age.

### Convenience Product

ZeroVIL Piccos are a convenient, ready to use option for the intake of an amino acid mixture, also when on the way: discreetly, in tablet form/pellets.

### Administration

ZeroVIL Piccos should always be taken with a sufficient quantity of liquid.

### Amino acids

ZeroVIL Piccos		100 g	8,4 g
L-Alanine	g	4,9	0,41
L-Arginine	g	4,3	0,36
L-Aspartic acid	g	9,6	0,81
L-Cystine	g	2,7	0,23
L-Glutamine	g	3,5	0,29
L-Glutamic acid	g	6,3	0,53
Glycine	g	5,3	0,44
L-Histidine	g	2,1	0,18
L-Isoleucine	g	–	–
L-Leucine	g	–	–
L-Lysine	g	4,8	0,40
L-Methionine	g	1,6	0,14
L-Phenylalanine	g	3,1	0,26
L-Proline	g	8,4	0,71
L-Serine	g	5,4	0,45
L-Threonine	g	3,9	0,33
L-Tryptophan	g	1,5	0,13
L-Tyrosine	g	3,6	0,30
L-Valine	g	–	–

### Measuring or Weighing?

The following applies to the enclosed dosing aid:

5 g protein eqv.  $\triangleq$  11,25 ml

This corresponds to a filling between the 10 ml indication and the mark above it.



It might be helpful to mark the corresponding spot with a permanent marker.

Nevertheless, we recommend weighing the desired amount of Piccos if possible:

5 g protein eqv.  $\triangleq$  8,4 g product.

Tip: If you check the first measurements using a scale (display with at least 1 digit after the decimal point), you will quickly get a feeling for how full the dosing aid is when the target value of 8,4 g is reached.

### Intake

The tablets/pellets should be swallowed unchewed as whole. ZeroVIL Piccos should always be taken with a sufficient quantity of liquid. The tablets/pellets are not intended to be dissolved in water or other drinks prior to intake. ZeroVIL Piccos are not meant to dissolve in the mouth.

We recommend to take the tablets/pellets in an upright position.

ZeroVIL Piccos should be used within

three weeks – the original Securibox® being closed tightly after every use.

ZeroVIL Piccos are coated with a flavour- and odour-neutral layer – therefore they do not produce an unpleasant aftertaste or breath malodour and there is no annoying belching.

Thanks to their protective coating the tablets/pellets are easy to swallow. This coating is extremely thin and water-soluble. If it were to dissolve, the tablets/pellets would taste like a typical amino acid mixture.

ZeroVIL Piccos are tooth-friendly. Intake of the coated tablets/pellets with water (including mineral water) contributes to oral hygiene and helps prevent possible tooth damage caused by caries.

#### Environmentally friendly Packaging

ZeroVIL Piccos are packed in a plastic container. The plastic of this so called Securibox® consists of renewable, plant-based raw material obtained from controlled, eco-friendly cultivation – sustainable and CO<sub>2</sub> efficient.

**Function** ZeroVIL Piccos substitute that part of the protein in the diet which may not be taken up from natural food sources.

**Indication** ZeroVIL Piccos are a food for special medical purposes and as protein supplement suitable for the dietary management of disorders in metabolism of branched chain amino acids, e.g. Maple Syrup Urine Disease (MSUD).

**Dosage** The daily total amount of amino acid mixture depends on age, body weight and individual medical condition and should be re-examined and adjusted in accordance with the results of regular monitoring. The daily dosage of amino acid mixture should at best be divided into 3 – 5 single portions.

ZeroVIL Piccos can be combined with other products from the ZeroVIL-system. The diet must be supplemented with energy, natural protein and other nutrients in prescribed quantities.

**Important Notice** Must only be used under medical supervision. Not for use as a sole source of nutrition. For enteral use only. Only for people with proven disorders in metabolism of branched chain amino acids, e.g. Maple Syrup Urine Disease (MSUD). Suitable from 3 years of age.

#### GOOD TO KNOW Slow Release

Slow Release protein substitutes are characterised by a prolonged release of amino acids.

By embedding the amino acid formulation in alginate, a natural polymer from brown algae forming a hydrophilic gel, the amino acids are gradually released within the gastrointestinal tract over an extended period of time. This contributes to a digestion of the amino acids similar to that of natural protein. The prolonged absorption kinetics of Slow Release protein substitutes promote endogenous protein synthesis and prevent catabolism. In animal and human studies, Slow Release amino acid formulations have been shown to lead to improved metabolic control and lower peak concentrations of individual amino acids in the blood. Alginates exhibit a prebiotic effect by promoting the microbiome. In addition, various clinical studies have demonstrated that alginates have the potential to reduce body weight and cholesterol levels and to prevent diabetes by reducing postprandial glucose and insulin peaks.

Reference:

• de Jesus Raposo MF, de Moraes AM, de Moraes RM. Emergent Sources of Prebiotics: Seaweeds and Microalgae. Mar Drugs. 2016.

**NUTRITION INFORMATION**

ZeroVIL Piccos		100 g	8,4 g
<b>Energy</b>	kJ	1144	96
	kcal	271	23
<b>Fat</b>	g	2	0,16
of which saturates	g	2	0,16
<b>Carbohydrate</b>	g	0	0
of which sugars	g	0	0
<b>Fibre</b>	g	7	0,6
<b>Protein eqv.</b>	g	60	5
<b>Amino acids</b>	g	72	6
<b>Salt</b>	g	2,4	0,2

**Vitamins**

g protein

Vitamin A	µg	1080	91	18
Vitamin D3	µg	39	3	0,6
Vitamin E	mg	21	1,8	0,35
Vitamin K1	µg	77	7	1,3
Vitamin C	mg	126	11	2
Thiamin (Vit. B1)	mg	2	0,17	0,035
Riboflavin (Vit. B2)	mg	2,4	0,2	0,04
Niacin	mg	48	4	0,8
Vitamin B6	mg	2	0,16	0,03
Folic acid	µg	360	30	6
Vitamin B12	µg	6	0,5	0,1
Biotin	µg	48	4	0,8
Pantothenic acid	mg	9	0,8	0,15

**Minerals**

Sodium	mg	950	80	16
Potassium	mg	1514	127	25
Calcium	mg	1507	127	25
Phosphorus	mg	976	82	16
Magnesium	mg	372	31	6

**Trace elements**

Iron	mg	22	1,8	0,36
Zinc	mg	22	1,8	0,36
Copper	mg	2,4	0,2	0,04
Manganese	mg	7	0,6	0,11
Fluoride	mg	0,9	0,08	0,015
Selenium	µg	87	7	1,5
Chromium	µg	120	10	2
Molybdenum	µg	102	9	1,7
Iodine	µg	270	23	4,5

**FURTHER NUTRITION INFORMATION**

L-Carnitine	mg	54	5	0,9
Choline	mg	540	45	9
myo-Inositol	mg	282	24	5
Taurine	mg	60	5	1

**INGREDIENTS**

Bulking agents: sodium alginate & microcrystalline cellulose & silicium dioxide & isomalt, L-lysine-L-aspartate, L-proline, anti-caking agents: calcium silicate & magnesium stearate, potassium-L-glutamate, L-arginine-L-aspartate, L-serine, glycine, L-alanine, calcium phosphate, L-threonine, L-tyrosine, L-glutamine, L-phenylalanine, magnesium L-aspartate, L-cystine, L-histidine, N-acetyl-L-methionine, L-tryptophan, glazing agents: E 464 & E 463 & E 422, colouring food: spirulina & apple, colour: beetroot red, choline, L-carnitine, vitamin E, vitamin A, sodium molybdate, folic acid, inositol, niacin, ferrous sulphate, sodium selenite, vitamin C, zinc sulphate, pantothenic acid, taurine, vitamin K, sodium fluoride, manganese sulphate, chromium (III) chloride, vitamin B2, vitamin B1, vitamin B6, potassium iodide, cupric sulphate, biotin, vitamin D, vitamin B12.

Delivery Unit	box, Securibox® 7 x Securibox® at 100 g = 700 g
Article Number	xx-001-30680
Delivery to	Pharmacies, clinics
Storage	Store in a cool, dry place.