

# Product Information

– for professionals only –



## Zero TVMI Piccos

SLOW RELEASE

### In Short

- ZeroTVMI Piccos are a Food for Special Medical Purposes (FSMP) for use in the dietary management of Methylmalonic Aciduria (MMA) or Propionic Aciduria (PA)
- prolonged release of amino acids – Slow Release
- in form of very small tablets/pellets – coated
- suitable from 3 years of age
- highly concentrated protein supplement free of Threonine, Valine, Methionine and Isoleucine (TVMI)
- 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  $\hat{=}$  8,4 g product  $\hat{=}$  5 g protein eqv.
- 1 Securibox® contains 100 g ZeroTVMI Piccos  $\hat{=}$  60 g protein eqv.

### Product Profile

ZeroTVMI Piccos are a highly concentrated mixture of highly purified L-amino acids free of Threonine, Valine, Methionine and Isoleucine (TVMI) 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)

SLOW RELEASE

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

ZeroTVMI Piccos are a pressed and coated protein supplement.

ZeroTVMI 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.

ZeroTVMI 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.

ZeroTVMI Piccos provide an alternative for all those patients who wish to benefit from the advantages of our ZeroTVMI 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  $\hat{=}$  8,4 g product  $\hat{=}$  5 g protein equivalent.

1 Securibox® contains 100 g ZeroTVMI Piccos  $\hat{=}$  60 g protein equivalent.

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

Suitable from 3 years of age.

### Convenience Product

ZeroTVMI 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

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

### Amino acids

ZeroTVMI Piccos	100 g	8,4 g
L-Alanine	g 4,9	0,41
L-Arginine	g 4,3	0,36
L-Aspartic acid	g 9,4	0,79
L-Cystine	g 2,7	0,23
L-Glutamine	g 3,9	0,33
L-Glutamic acid	g 6,3	0,53
Glycine	g 4,1	0,34
L-Histidine	g 1,6	0,13
L-Isoleucine	g –	–
L-Leucine	g 7,0	0,58
L-Lysine	g 4,6	0,39
L-Methionine	g –	–
L-Phenylalanine	g 3,1	0,26
L-Proline	g 8,7	0,73
L-Serine	g 5,4	0,45
L-Threonine	g –	–
L-Tryptophan	g 1,6	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.  $\hat{=}$  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.  $\hat{=}$  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. ZeroTVMI 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. ZeroTVMI Piccos are not meant to dissolve in the mouth.

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

ZeroTVMI Piccos should be used within

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

ZeroTVMI 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.

ZeroTVMI 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

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

**Indication** ZeroTVMI Piccos are a food for special medical purposes and as protein supplement suitable for the dietary management of Methylmalonic Aciduria (MMA) or Propionic Aciduria (PA).

**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.

ZeroTVMI Piccos can be combined with other products from the ZeroTVMI-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 Methylmalonic Aciduria (MMA) or Propionic Aciduria (PA). Suitable from 3 years of age.

Reference:

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



#### 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 post-prandial glucose and insulin peaks.

**NUTRITION INFORMATION**

		100 g	8,4 g
<b>Energy</b>	kJ	1165	98
	kcal	276	23
<b>Fat</b>	g	1	0,08
of which saturates	g	1	0,08
<b>Carbohydrate</b>	g	0	0
of which sugars	g	0	0
<b>Fibre</b>	g	13	1,1
<b>Protein eqv.</b>	g	60	5
<b>Amino acids</b>	g	72	6
<b>Salt</b>	g	2,4	0,2

			g protein	
<b>Vitamins</b>				
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, potassium-L-glutamate, L-arginine-L-aspartate, L-leucine, L-serine, L-alanine, calcium phosphate, glycine, L-glutamine, L-tyrosine, L-phenylalanine, magnesium L-aspartate, L-cystine, anti-caking agents: calcium silicate & magnesium stearate, glazing agents: E 464 & E 463 & E 422, colouring food: safflower & lemon, colour: beetroot red, L-histidine, L-tryptophan, 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-001-31580
Delivery to	Pharmacies, clinics
Storage	Store in a cool, dry place.