# **PROPICUM**<sup>®</sup>

Food Supplement 500 mg Sodium Propionate

# 60 Capsules

# Dear user of PROPICUM®,

We are glad you choose to buy PROPICUM<sup>®</sup>, a quality product of the company FLEXOPHARM<sup>®</sup> BRAIN. Within this leaflet you will find information about the product, its ingredients and recommendations for the intake. If you have further questions, please ask your doctor or pharmacist.

# What is PROPICUM<sup>®</sup>?

PROPICUM<sup>®</sup> is a food supplement. Its main ingredient sodium propionate is a salt of propionic acid, a short chain fatty acid.

# How to take PROPICUM®?

Take one capsule unchewed twice daily with fluid during meals. The daily dosage equals 1000 mg sodium propionate.

## How long should I take PROPICUM®?

Short chain fatty acids are produced by specific gut bacteria. They are needed by different gut bacteria and also the human metabolism. A regular use over an extended period of time is therefore recommendable.

### How do I store PROPICUM®?

Please store dry, cool and protected of sunlight.

## What do I have to consider?

- Food supplements are not a substitute for a balanced and diversified diet.
- The recommended portion for daily consumption should not be exceeded.
- Keep out of reach of children.

## More information about PROPICUM®:

- Free of lactose and gluten.
- Free of animal ingredients, vegan product.
- Free of milk, wheat, yeast, corn and refined oils.
- The capsules are free of invisible coating, binding material, shellac, artificial scent or dyestuffs.

The contents of PROPICUM<sup>®</sup> are white capsules filled with white powder.

**Ingredients:** Sodium Propionate, Separating Agent: Tricalciumphosphate (E341), Silicon Dioxide (E551), Magnesium Stearate (E470b)

Capsule Shell: HMP-Cellulose (out of plants only)

#### Where can I get more information?

If you want to know more about short chain fatty acids and PROPICUM<sup>®</sup>, please visit our website www.propicum.com.

Nutritional Information:		
Content	Per 100 g	Per Capsule
Energy	1.030 kJ / 242 kcal	5,15 kJ / 1,21 kcal
Fat	0,5 g	0,0025 g
of which saturated fatty acids	< 0,1 g	< 0,1 g
Carbohydrate	58,3 g	0,2915 g
of which sugar	37 g	0,185 g
Protein	1,3 g	0,0065 g
Salt	< 0,1 g	< 0,1 g



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# General information about short chain fatty acids

#### Essential foundation for a healthy gut

About 95 % of short chain fatty acids found in the human body are acetic acid, butyric acid and propionic acid. These are currently in the focus of scientific research. As of known today, short chain fatty acids play a crucial role within the human metabolism especially in the human gut. In principle our own gut bacteria (gut flora) can produce short chain fatty acids on their own. To be able to do so, they need fiber rich food e.g. vegetables, fruits and legumes. Short chain fatty acids have two central tasks, first they are a food source for other bacteria of the gut flora and also for the intestinal membrane cells while on the other hand they regulate a large amount of processes in the human body. The modern so called western diet consists of low fiber food items, which can lead to a very limited production of short chain fatty acids by the gut flora, which ultimately can lead to a change of the gut flora itself.

A gut which is sick or which is not optimally supplied with short chain fatty acids is affecting overall health. So bacteria in your gut have a massive impact on whether your gut functions properly and if your overall health is good or not.

#### Impact on the immune system

The human gut is the strongest defense mechanisms of the human immune system. About 80 % of immune cells are within or around the gut. From there the cells move into the whole body. Type and function of immune cells are influenced by the gut flora. Short chain fatty acids help adjusting the immune system to function properly, in other words, they can help "regulate". Therefore they are a part of identifying and attacking unwelcomed guests like viruses and parasites, but also are dampening unintended reactions of the immune system against harmless and useful "visitors" or the own body.

Short chain fatty acids affect the production of regulatory T cells positively. These T cells suppress autoimmune reactions, if the immune system falsely activates its defense mechanisms, like when having an allergic reaction or with food intolerances. An optimal supply of short chain fatty acids helps the body to help itself or not to damage itself.

For all diseases like asthma, rheumatism and other inflammatory joint disorders, psoriasis, neurodermatitis, multiple sclerosis or Crohns disease (inflammatory disease of the gut) regulatory T cells are of massive importance. The immune system overshoots and reacts too intensively and fights against the own body. Short chain fatty acids may act as an emergency brake against inflammation.

#### Impact on the metabolism

The positive impact of fiber rich food on losing weight and normalizing the sugar metabolism is long known. The explanation for this lies within short chain fatty acids.

Propionic acid is playing a central role with the regulation of the blood sugar level. It has a positive impact on sugar metabolism and helps improving insulin production in the pancreas while increasing the insulin sensitivity of body cells – therefore preventing diabetes. Model experiments have shown that the supplementation of short chain fatty acids lead to significantly lower chances to develop diabetes.

In addition short chain fatty acids trigger the release of appetite suppressing messenger substances within the gut and restrain especially the appetite for unhealthy food and the classical calorie bombs.

A summary about the scientific publications on the topic of short chain fatty acids is available on our website: http://en.propicum.com/pages/scientific-information