Product Information Sheet

BURGIMMUNE PREMIUM IMMUNE-BOOSTING COMBINATION

[FIGURE] Photograph of the front of the product packaging (a stand-up, resealable pouch). The pouch is dark burgundy. At the top, the brand name "Burgimmune" appears in white letters; below it, on a yellow-gold ribbon, the text "PREMIUM IMMUNE-BOOSTING COMBINATION" is shown. Underneath, in white letters: "Veterinary preparation with health-promoting effect", followed by yellow lettering: "FOR DOGS AND CATS". The central area shows six coloured circles representing the active ingredients: at the top, "GINSENG" (burgundy) and "SPIRULINA ALGAE" (green); on the right, "CORIOLUS VERSICOLOR MUSHROOM" (burgundy); on the left, "BETA-GLUCAN" (burgundy); in the lower left, two smaller circles for "Vitamin B6" and "Vitamin E" (burgundy). Among the circles, in the centre of the pouch, a cheerful French bulldog (light brown / beige-brindle coat) is shown with its tongue out; beside it, in the lower right, a small white cat (ragdoll-style, blue-eyed) is depicted. At the bottom left of the pouch is the distributor's logo: "N.P.C.S. — Natural Pet Care System — We help naturally… www.naturalpetcaresystem.com." To the right of the bottom-left corner, in large yellow lettering: "POWDER, 1 MONTH'S DOSE", with a small-print note below: "(*for a healthy animal of 15 kg body weight)."*

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Dose sufficient for 30 days, i.e. a 1-month supply (for a healthy animal of 15 kg body weight).

Veterinary preparation with health-promoting effect, for dogs and cats.

Basic product data

Product name: BURGIMMUNE PREMIUM IMMUNE-BOOSTING COMBINATION

Product form: oral powder

Composition and active-ingredient content

Composition of the product, including quantities of the active ingredients:

Ingredient	Amount in 45 g of product
Coriolus versicolor mushroom	10,000 mg
Beta-glucan	1,500 mg
Ginseng	1,500 mg
Vitamin B6	750 mg

Ingredient	Amount in 45 g of product
Spirulina algae	600 mg
Vitamin E	150 mg
Carrier (pumpkin seed flour) ad	45 g

Nutritional values (relative to dry matter):

Crude protein	36.80 % w/w
Crude fibre	3.85 % w/w
Crude fat	12.50 % w/w
Crude ash	6.88 % w/w
Moisture	3.68 % w/w
Dry-matter content	96.32 % w/w

Effects of the preparation

Burgimmune is a combination of plant-based active ingredients, a medicinal mushroom, beta-glucan, and vitamins that are important for the effective functioning of the immune system. Its components support the non-specific, humoral and cellular immune response, enhance the effectiveness of antitumour therapies, and at the same time reduce their unpleasant side effects.

Effects, grouped by ingredient

- Immune-boosting: Coriolus versicolor, beta-glucan, ginseng, vitamin B6, Spirulina algae.
- Antioxidant: Coriolus versicolor, ginseng, vitamin E.
- Haematopoiesis-enhancing (supports blood-cell formation): vitamin B6, Spirulina algae.
- Appetite-stimulating and antiemetic: vitamin B6.
- Skin-supporting: vitamin B6, vitamin E.

Detailed presentation of the active ingredients

Coriolus versicolor (turkey tail) mushroom

Coriolus versicolor (also known as Trametes versicolor, Polyporus versicolor or yunzhi mushroom) is a common fungus species found throughout the world. The name “versicolor” refers to its multi-coloured appearance. The mushroom is often called the “turkey tail” because its shape resembles the tail of a wild turkey. It supports the activity of so-called natural killer (NK) cells and promotes their formation. These cells help to kill cancer cells and combat infections.

In some countries, the turkey tail mushroom is regularly cultivated for the production of natural polysaccharides — beta-glucan (PSK) and polysaccharide-peptide (PSP). Pharmaceuticals made from these are used in the treatment of cancer patients as adjuncts, to reduce the side effects of surgery, radiotherapy and chemotherapy. PSK is a commonly used anticancer drug in Japan. In addition to reducing the negative effects of conventional therapies, the mushroom extract also has a beneficial effect on the immune system.

In a study* conducted at the School of Veterinary Medicine of the University of Pennsylvania, dogs suffering from haemangiosarcoma — an aggressive, malignant tumour formed in the cells of the blood vessels — were treated with a compound extracted from the Coriolus versicolor mushroom. Based on the criteria examined by the researchers — how quickly the tumour grew and/or spread, and how long the animals lived — the results showed that the mushroom preparation is effective against the tumour: the average survival time increased to 199 days, whereas the previously longest survival time had been only 86 days.

The active substances of Coriolus versicolor are beta-glucan-protein complexes (PSK, krestin), which have antioxidant, antitumour, antiviral and immunomodulatory effects. The direct antitumour effect of the PSK polysaccharide has been demonstrated experimentally. The other important active substance is polysaccharide-peptide (PSP), which is also an antiviral and antioxidant compound. Ergosterols (D29-provitamin derivatives) are antitumour polysaccharide components. PSK and PSP are the most important active substances of the Coriolus versicolor mushroom. Both compounds support the functioning of the immune system at many points. Ergosterols, in turn, inhibit blood-vessel formation, thereby preventing the growth of tumours and the development of metastases.

** Source: Evidence-Based Complementary and Alternative Medicine: Single Agent Polysaccharopeptide Delays Metastases and Improves Survival in Naturally Occurring Hemangiosarcoma, Dorothy Cimino Brown, 2012.*

Beta-glucans

Beta-glucans are complex carbohydrate molecules with a unique molecular structure that determines their biological activity. Molecules with branching at the 1-3 and 1-6 carbon atoms are among the best-known immunostimulants. These are derived from the cell wall of yeast, which is processed using a special procedure to achieve the strongest possible immunological activity.

Numerous clinical studies have shown that beta-glucans extracted from yeast cells have the strongest immunological effects. They effectively help the immune system fight bacteria and viruses, and increase the effectiveness of vaccination.* It has been shown that the number of antibodies against canine parvovirus and the rabies virus increased significantly in dogs that received beta-glucan at the same time as vaccination (Haladová et al., 2011).

Administered orally, beta-glucans increase the level of IgG and IgA antibodies in the blood and on the mucous membranes. Their mechanism of action is based on specific receptors located on macrophages, neutrophils, monocytes, dendritic cells, and NK lymphocytes (Stuyven et al., 2010). Beta-glucans activate the complement system and stimulate the production of pro- and anti-inflammatory interleukins (IL-1, IL-6, IL-10, IL-12) and TNF-α, which increases the stability of the immune system and protects the body against bacterial, viral, fungal, and parasitic infections (Pelizon et al., 2005; Wójcik et al., 2007; Chen and Seviour, 2007).

The main role of beta-glucans is to activate macrophages — the immune cells that form the first line of defence of the immune system. Macrophages capture and engulf all foreign substances (bacteria, viruses, etc.), alert and mobilise the defence system, and recognise and destroy mutant cells. Macrophages digest the beta-glucan; the released active fragments then bind to the so-called complement receptors of neutrophil granulocytes, thereby activating the pathogen-killing mechanism.

A similar process takes place in the case of tumour cells: here, the administration of beta-glucan activates those natural immune cells that would otherwise not play a role in recognising cancer cells. Beta-glucan activates the complement receptors of neutrophil granulocytes, enabling them to recognise and destroy tumour cells as well.

** Source: Food and Agricultural Immunology: Effects of orally administered β-1,3/1,6-glucan on vaccination responses and immunological parameters in dogs, Boris Vojtek, 2017.*

Ginseng

An ancient Chinese medicinal plant with antioxidant and anti-inflammatory effects; its anticancer effect has been demonstrated for certain types of tumour. It enhances the function of the non-specific immune system and is an immune booster. It improves brain function and may help to lower blood-sugar levels. The saponins found in ginseng — the ginsenosides — promote the production and maturation of mononuclear cells, macrophages and dendritic cells. These cells are responsible, among other things, for antigen presentation: recognising foreign substances that have entered the body and presenting them to other cells of the immune system.

Vitamin B6

Vitamin B6 not only improves metabolism but also supports vision and has many positive effects on skin health. It also helps detoxify the liver and supports kidney function. Its appetite-stimulating and antiemetic effects are also well documented, which can be very important in cases of cancer. This water-soluble vitamin is a precursor of important coenzymes; it is essential for the proper functioning of the immune system, the digestive system and the nervous system, as well as for haemoglobin synthesis.

Spirulina algae

Spirulina is a type of blue-green algae found in both saltwater and freshwater. It is probably the most nutrient-dense food on Earth. Its main active substances are: C-phycocyanin (a blue pigment, which does not contain magnesium), chlorophyll-A (a green pigment, which does contain magnesium), approximately 50 % protein (which is why it is particularly rich in amino acids, including essential amino acids), high-molecular-weight polysaccharides (e.g. the calcium salt of spirulan), sulpholipids, γ-linolenic acid (whose content can reach 1 %), β-carotene and other carotenoids, as well as vitamins B, C and E.

Microalgae have often been used in various parts of the world to treat anaemia. Their effect on anaemia is based on enhancing haematopoiesis (blood-cell formation) and on increasing iron intake, since the iron content of Spirulina is relatively well absorbed compared with other plant sources.

Animal experiments have also demonstrated a haematopoiesis-enhancing and immune-stimulating effect, which can be beneficial alongside chemotherapy — Spirulina increases the division (proliferation) and maturation (differentiation) of the cells involved in bone-marrow haematopoiesis. Its consumption may also increase the activity of natural killer cells.

Spirulina owes its bluish colour to the pigment phycocyanin. Phycocyanin has antioxidant, immune-boosting, haematopoiesis-enhancing and antiviral effects and reduces the toxicity of harmful substances. Both C-phycocyanin and the polysaccharides may play a role in increasing white-blood-cell production.

Main effects of Spirulina algae: antiviral, antimicrobial, antioxidant, anti-inflammatory (especially C-phycocyanin, whose anti-inflammatory effect has also been demonstrated experimentally in animal models of induced arthritis), analgesic (C-phycocyanin); cardio-, hepato- and nephroprotective; immunomodulatory; preventing and slowing tumour formation; detoxifying and mitigating drug-induced side effects. It inhibits the aggregation of platelets, slows the progression of atherosclerosis, and has a favourable effect on blood-lipid values (it reduces the concentration of harmful LDL cholesterol and increases the proportion of vascular-protective HDL cholesterol). It is also blood-sugar-lowering, antiallergenic (its anti-allergic effect has been demonstrated in allergic rhinitis), and tonic.

Vitamin E

Vitamin E (alpha-tocopherol) is a fat-soluble antioxidant vitamin — it protects against the harmful effects of free radicals. Free radicals are formed in cells during their normal metabolic processes. Vitamin E inhibits the formation of free radicals and their cell-damaging effects. Being fat-soluble, it also provides effective protection for the cell membrane.

It protects the coronary arteries of the heart, inhibits blood-clot formation, and is therefore an effective aid against thrombosis. It is also beneficial for the brain, because the cells that protect the nerve cells contain a great deal of fatty acid, which can likewise be damaged by free radicals. Vitamin E supports the immune system in many processes, reduces the fragility of the skin, supports wound healing and also protects red blood cells.

Target species

Dogs and cats.

Indication

Burgimmune Premium Immune-Boosting Combination contains a specially designed combination of plant-based active ingredients, a medicinal mushroom, beta-glucan, and vitamins. Through their multiple effects on the immune system (immune-boosting and antioxidant), these substances effectively contribute to maintaining health and to the body's defence against disease.

Owing to its special composition, Burgimmune is specifically indicated as an adjunct in the treatment of tumour diseases. It supports the non-specific, humoral and cellular immune response, enhances the effectiveness of antitumour therapies, and at the same time reduces their unpleasant side effects (with appetite-stimulating, antiemetic, haematopoiesis-enhancing, and skin-supporting effects).

It is also generally recommended for strengthening the immune system (e.g. in viral or bacterial infections or parasitic infestations). It may also be used to support the immune system of young animals, in mother animals during pregnancy and lactation, and in ageing pets, so that they can enjoy a good quality of life for as long as possible.

Dosage and method of administration

For healthy animals, for immune support

Once daily:

- Up to 15 kg body weight: half a measuring spoon, or 1 heaped coffee spoon (1.5 g).
- 16–30 kg body weight: 1 measuring spoon, or 2 heaped coffee spoons (3 g).
- 31–45 kg body weight: 1.5 measuring spoons, or 3 heaped coffee spoons (4.5 g).

In other (acute or chronic) cases: double the dose.

For extra-mini animals (under 5 kg): one-third of a measuring spoon, or 1 level coffee spoon.

At the normal dose, one sachet is enough for approximately 30 days — i.e. one month — for animals up to 15 kg body weight.

Method of administration

To be administered orally, mixed into the food or dissolved in warm water and given by syringe. For dry food, dissolve and stir in 0.5 dl (50 ml) of warm water.

Recommended duration of use

- Healthy animals: a 2-month course is recommended, twice a year.
- Ageing animals (small breed: over 8 years of age; large breed: over 6 years of age): continuous use is recommended.
- Young animals: continuous use is recommended from 6 weeks of age up to 6 months. (If immune support becomes necessary earlier, consult your veterinarian.)
- During pregnancy and lactation: may be given continuously.
- In illness or infection: a 1- to 3-month course is recommended, or continuous use is advised for as long as the disease persists. (Consult your veterinarian.)

- In case of surgery or allergy: a 1- to 3-month course is recommended, or continuous use is advised until recovery or wound healing. For planned surgery or anticipated allergy seasons, it is recommended to start the course beforehand. (Consult your veterinarian.)

The recommended dosage must be strictly adhered to!

Contraindications

Must not be used in case of known hypersensitivity to any of the ingredients.

Side effects

None known.

⚠️ WARNINGS

The use of this product does not replace the veterinary medication recommended for specific clinical conditions.

Before use, and if the animal's condition worsens or does not improve, seek the advice of your veterinarian.

Very rarely, diarrhoea may occur. In such cases, it is recommended to reduce the dose or to discontinue use of the product, and to consult a veterinarian.

Shelf life, storage, and packaging

Shelf life: the product retains its quality until the date shown on the packaging (month/year). When stored in the original packaging, it may be used for 2 years from the date of manufacture.

Storage instructions: store at room temperature, below 25 °C, in a dry place, protected from light and frost.

Packaging (type of container or packaging material, pack sizes): 45 g, in a recyclable sachet. A 3 g measuring spoon is included.

Keep out of the reach of children!

For veterinary use only!

Disposal of unused product and waste

Any unused remainder of the product and the empty packaging materials must be disposed of in accordance with local requirements.

Distributor, manufacturer, and registration data

Name and address of the distributor: Natural Pet Care System Magyarország Kft., 2120 Dunakeszi, Szent István utca 59/a, Hungary.

E-mail: info@burgimmune.com

Name and address of the manufacturer: Újdonságok Kft., 6728 Szeged, Budapesti út 11, Hungary. (HU 05 1 00 164)

Product registration number: 1695/1/NM/2020 NÉBIH ÁTI (Hungarian National Food Chain Safety Office, Directorate of Animal Health and Animal Welfare).

For further information, please consult your veterinarian or pharmacist.