

SUPRA® RC-5 SUPRA® RC-15

Complete vitamin-mineral supplement for the treatment of anemic conditions, inappetence, convalescence and to support recovery in cats and dogs, formulated in Chews of high palatability.

Anaemia is defined as a decrease in the haematocrit level, the red blood cell count or haemoglobin below the reference range. Its main consequence is the decrease in oxygen transport capacity to tissues. Anaemias can be classified as regenerative (implies a normal production of erythrocytes in the bone marrow) or non-regenerative (a consequence of poor production in the bone marrow). The total reticulocyte count is used to determine the degree of regenerative response. Some studies suggest that the frequency of anaemia in total may be 3.6% in cats, with more than half being non-regenerative anaemias. Non-regenerative anaemias can have different etiologies: chronic blood loss, anaemia from inflammatory disease, kidney disease, infectious causes such as feline leukaemia, medullary aplasia ... among them, there is also iron deficiency and nutritional deficits.

Iron deficiency anaemia may be due to chronic blood loss, inadequate mineral intake or inadequate absorption of the same. In small animals, the main cause is chronic blood loss, with the gastrointestinal tract being the main source of these losses. Bleeding from neoplasms such as leiomyomas, leiomyosarcomas or carcinomas, the use of ulcerogenic medications or inflammatory bowel disease are potential causes of chronic blood loss. On the other hand, both gastrointestinal parasites and ectoparasites can cause substantial blood loss, especially in puppies.

Growing young animals may have an iron deficiency if the diet does not provide the right amount of this mineral that is necessary for development. In addition, nursing puppies and kittens are more susceptible due to a low iron content in milk. On the other hand, pathologies that present with intestinal malabsorption can also cause iron deficiency in dogs. Iron deficiency anaemia has been described in animals often used as blood donors.

Oral iron supplementation is considered the safest and most affordable route in these cases. Anaemias due to nutritional deficiencies are rare in veterinary medicine, due to the improvement in the quality of dog and cat diets. However, it can be observed in some cases where inadequate homemade diets are administered, in animals with gastrointestinal problems that affect absorption or in suckling puppies.



Active ingredients (per chew):

| | SUPRA® RC-5 | SUPRA® RC-15 |
|--|-------------|--------------|
| Iron | 20 mg | 60 mg |
| Copper | 1 mg | 3 mg |
| Vitamin B ₁ (Thiamine) | 2 mg | 6 mg |
| Vitamin B ₂ (Riboflavin) | 1 mg | 3 mg |
| Vitamin B ₃ (Niacin) | 10 mg | 30 mg |
| Vitamin B ₆ (Pyridoxine) | 1 mg | 3 mg |
| Vitamin B ₉ (Folic acid) | 50 µg | 150 µg |
| Vitamin B ₁₂ (Cyanocobalamin) | 25 µg | 75 µg |
| Vitamin C (Ascorbic Acid) | 10 mg | 30 mg |
| Vitamin E | 11,25 UI | 33,75 UI |
| Vitamin K ₃ (Menadione) | 0,25 mg | 0,75 mg |

VetNova



Data Sheet



Features

Indicated in anaemic, convalescent, postoperative states, etc.

Complete and balanced formula of 11 nutrients that favour the synthesis of red blood cells.

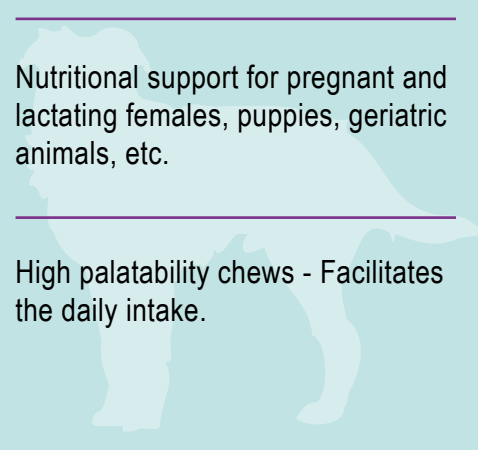
Rich in iron, copper, vitamins B₂, B₆, B₉, B₁₂ and K₃, essential for synthesis of erythrocytes and haemoglobin.

With vitamin C, for better absorption of iron.

Contains moderate levels of phosphorus - suitable for animals with Kidney Disease.

Nutritional support for pregnant and lactating females, puppies, geriatric animals, etc.

High palatability chews - Facilitates the daily intake.



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Composition (in descending order):

Melaza de caña de azúcar, melaza de remolacha de azúcar, glicerina, aceite de soja, harina de hígado porcino, fibra de soja, almidón de maíz, sacarosa, fosfato dicálcico, estearato de magnesio, grasa vegetal de soja, aceite de pescado, sal, mezcla de tocoferoles, extracto de romero.

Additives (per kg): Vitamins, provitamins and chemically defined substances of analogous effect: 3a700 Vit E 4500 IU; 3a821 Vit B1 800 mg; Vit B2 400 mg; 3a314 Niacin 4000 mg; 3a831 Vit B6 400 mg; 3a316 Folic Acid 20 mg; Vit B12 10 mg; 3a300 Vit C 4000 mg; 3a710 Vit K3 100 mg.

Trace elements: E1 Fe (Ferrous Fumarate) 8000 mg; E4 Cu (Copper Sulphate Pentahydrate) 400 mg.

Analytical constituents: Crude protein 8.8%; crude oils and fats 14.3%; crude fibre 6.45%; crude ash 7%; sodium 0.27%; calcium 0.74%; phosphorus 0.5%.

Properties and Mechanism of Action:

Iron is an essential element for almost all living animals: it participates in a multitude of biochemical processes, such as the formation of neurotransmitters and myelin, the formation of collagen, the function of the immune system, the synthesis of DNA and RNA and many enzymatic systems. However, most iron is used in the formation of haemoglobin. Healthy animals obtain iron exclusively through the diet.

It is important that iron deficit therapy be continued until the haematocrit level returns to normal (approximately 4 weeks after the start of treatment). The haematocrit level increases before the iron body stores have recovered, so if the therapy is stopped prematurely (minimum 4 weeks, but supplementation of several months may be necessary depending on the severity of the anaemia), the animal runs the risk of getting anaemia again.

On the other hand, treatments with erythropoietin can cause a rapid erythropoiesis that depletes the iron body reserves, so it may be advisable to administer iron supplements before and during this type of treatment.

Copper, Bvitamins and vitamin K perform different roles, all of them essential, in the correct formation of haemoglobin, erythrocytes and the optimal functioning of the physiological mechanisms of coagulation. Anaemia associated with copper deficiency and vitamins B₆, B₉ y B₁₂. have been described. On the other hand, vitamin K deficiency can cause serious haemostatic problems.

Vitamin B₁ or thiamine is an essential component of the diet of small animals. Because it is not stored in the body, increased activity, stress, illness or increased metabolism can deplete systemic levels. Its deficiency causes mental confusion, muscle weakness, spasms, nervousness and loss of appetite, for this reason it is important to ensure its contribution during periods of stress.

Vitamin B₆ o piridoxina interviene en diferentes procesos, como la síntesis de determinados neurotransmisores y la síntesis de hemoglobina.

Vitamin B₁₂ or cobalamin is a water-soluble vitamin that dogs and cats get through intestinal absorption. It is an essential micronutrient as a cofactor for the functioning of many enzymes, and has an important role in the synthesis of proteins and erythrocytes. Cobalamin deficiency can lead to a functional deficiency of folate. In addition, deficits in vitamin B₁₂ and folic acid can cause anaemia. Although these deficits are not usually observed spontaneously in small animals, we can see them associated with chemotherapy, anticonvulsant drugs or the feline leukaemia virus.

Copper performs two major functions: it can be a structural component of large macromolecules and, on the other hand, it is an important cofactor for many essential oxidases and reductases. It is part of several metalloproteins, among which we can highlight superoxide dismutase or cytochrom-c oxidase.

Anaemia is probably the most frequent sign observed in chronic copper deficiency. This deficit leads to less absorption, mobilisation and use of iron, which can cause a functional deficit of this mineral.

Vitamin C or ascorbic acid is a water-soluble vitamin. It is one of the most potent antioxidants that exists, it is key to the formation of collagen and glycosaminoglycans, and enhances the immune response. As an

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antioxidant, vitamin C intervenes in a large number of oxide reduction reactions, favouring the elimination of free radicals produced by the organism, as well as exogenous ones.

It has been observed that vitamin C increases the absorption of iron. The predominant form of iron in diets is ferric iron (Fe +++), which is less bioavailable than ferrous iron (Fe ++). One of the main features of ascorbic acid is its ability to reduce ferric iron to ferrous iron, increasing its solubility. In addition, some studies suggest that for ascorbic acid to increase iron absorption, they must be consumed simultaneously, since this effect does not occur if ascorbic acid is administered several hours after iron.

On the other hand, there is increasing evidence that, apart from the well-known capacity of ascorbic acid to increase the absorption of iron in the intestine, it can also regulate its metabolism.

Vitamin E is a fat-soluble vitamin and the most important antioxidant in cell membranes.

Among its many functions, it inhibits the peroxidation of lipids, so that its deficit increases the susceptibility of erythrocytes to peroxidative haemolysis. In addition, a deficiency in vitamin E can produce abnormalities in the immune system.

Indications:

- Nutritional support in animals with anemia due to iron deficiency or nutritional deficiencies.
- Convalescence processes, inappetence and recovery states.
- Nutritional deficits.
- Blood donor animals.
- Nutritional support in pregnant and lactating females.
- Improvement of the performance and delay of the appearance of the fatigue in the animals of sport or work.

Target species: Cats and dogs.

Directions of use:

- SUPRA® RC-5: 1 chew for every 5 kg of weight, once a day or divided into two doses (morning and night).
- SUPRA® RC-15: 1 chew for every 15 kg of weight, once a day or divided into two doses (morning and night).

Warnings: VetNova is a pioneer in the development of Chews technology to facilitate the administration of supplements to dogs and cats. Unlike tablets, capsules, etc., which are administered "forced" in the mouth to ensure the intake of the product, the Chews should be administered freely in the feeder allowing the pet to take them voluntarily. Some shy dogs or cats may need a long time to fully accept them, but once they do, the daily intake is easier and more satisfying. To facilitate initial acceptance, the following strategies can be used during the first week: 1) Reduce the dose and increase it progressively, 2) Distribute the daily dose in two doses (morning and night), 3) Crush the Chew and mix it with pâté or any other attractive food for the pet, etc.

Presentation:

SUPRA® RC-5: 30 chews (30 días para un perro o gato de 5 kg).

SUPRA® RC-15: 30 chews (30 días para un perro de 15 kg).

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