



VITAMIN B1

REGISTRATION NUMBER Q- 7972-021

Vitamin complement food product, for thiamin deficiencies.

FORMULATION:

Each 100 mL contain:
Thiamine Hydrochloride
(Vitamin B1) 12 g
Vehicle q.s..... 100 mL

DOSAGE SIZE AND FORM: 50 mL

VETERINARY USE



SOLUTION FOR INJECTION

**Thiamine hydrochloride
(Vitamin B1)**

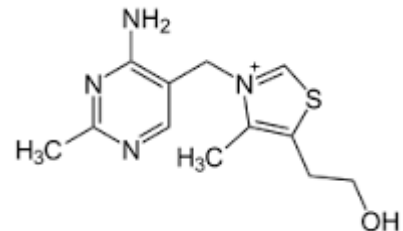
VITAMIN PRODUCT

DESCRIPTION:

VITAMIN B1, is indicated for conditions presenting thiamine deficiencies, due to poor diet or incorrect metabolism, weight loss, muscle weakness, nervous system disorders (ataxia) and anorexia.

VITAMIN B1 is made with 12% thiamin (vitamin B1), which is indicated for the proper functioning of the muscular and nervous systems, as well as for improving carbohydrate metabolism and lipid synthesis.

Thiamine is a molecule with 2 interconnected organic cyclic structures: a pyrimidine ring with an amino group and a sulfur-containing thiazole ring bound to the pyrimidine by a methylene bridge. It is soluble in water and insoluble in alcohol. Its absorption occurs in the small intestine (jejunum and ileum) as free





Protege lo ganado

thiamine and as thiamine diphosphate (TDP), which is promoted by the presence of vitamin C and folic acid but is inhibited by the presence of ethanol (alcohol).

PHARMACOKINETICS:

Thiamine can be administered orally or by intramuscular or intravenous injection. After intramuscular administration, thiamine is quickly absorbed and distributed throughout the whole body. It is excreted through breast milk (100-200 µg/day) but under normal conditions, its excretion is small. When high doses are administered, which are higher than necessary, it is excreted through the kidneys in the form of pyrimidine. Water-soluble vitamins such as thiamine are not accumulated, but instead they are eliminated if the body does not need them at that moment.

In bovines, it is also used as an adjuvant in the treatment of ethylene glycol intoxication, which helps to facilitate the conversion of glyoxylate to a non-toxic metabolite.

PHARMACODYNAMICS:

Thiamine combines with adenosine triphosphate (ATP) in the liver, kidneys, and white blood cells to form thiamine diphosphate. Thiamine diphosphate acts as a coenzyme in carbohydrate metabolism, in transketolization reactions and in the use of hexoses. Without adequate amounts of thiamine, pyruvic acid is unable to convert to acetyl-CoA and therefore cannot enter the Krebs cycle. The accumulation of pyruvic acid in the blood and its conversion to lactic acid is responsible for the lactic acidosis that develops in vitamin B1 deficiency.

ADVERSE EFFECTS

Hypersensitivity reactions have occurred after injection of this agent.
Some animals may have tenderness or pain after intramuscular injection.

SPECIES:

Bovines, horses, pigs, sheep, goats, dogs, and cats.

VITAMIN B1 DOSE:

Canines and Felines: 0.5 to 1 mL.

Pigs, Sheep and Goats: 3 to 6 mL

Cattle and Horses: 10 to 20 mL, per day.

Specific doses

Cattle: For thiamine deficiency:

- For polioencephalomalacia: start with 10 mg/kg IV; then 10 mg/kg IM twice daily for 2 to 3 days.



Protege lo ganado

- 10 to 20 mg/kg IM or SC 3 times a day; administered IV diluted whether in isotonic saline solution or isotonic dextrose solution.
- 10 mg/kg up to 4 times a day; The first dose can be administered slowly intravenously and the subsequent dose IM. Less severely affected animals may respond to lower or less frequent dosing.
- As adjunctive therapy for lead intoxication:
- 2 mg/kg IM (at the same time as Ca EDTA therapy); Total daily dose of 8 mg/kg.

Horses:

- For thiamine deficiency: 0.5 to 5 mg/kg IV or IM
- For the adjuvant treatment of perinatal asphyxia syndrome (hypoxic-ischemic encephalopathy): In foals: 1 gram (0.9 mL of vitamin B1) in one liter of PSS IV once a day.

Pigs:

- For thiamine deficiency: 5 to 100 mg IM, SC, or IV.

Sheep and goats:

- For thiamine deficiency:
- For polioencephalomalacia: Start with 10 mg/kg IV; then 10 mg/kg IM twice daily for 2 to 3 days.
- Sheep: 20 to 200 mg via IM, SC or IV.

ROUTE OF ADMINISTRATION

Intramuscular or slow intravenous.

WITHDRAWAL PERIOD:

It does not have a withdrawal period

WARNINGS AND/OR RESTRICTIONS:

Keep in a dry, cool place, at a range of 15-30°C and protected against direct sunlight. Keep out of reach of children and pets. Product for exclusive use in Veterinary Medicine.

Consult a Doctor of Veterinary Medicine.

Available by prescription only.

Exclusive literature for veterinary doctors.

Responsible for content: Technical Department.

