Heptran

Feed additive for cattle, horses, sheep, goats, poultry, dogs, cats

Beleka
Care for Animals

COMPOSITION PER LITRE

L-carnitine .... 50 g.
Magnesium sulfate.. 200 g.
Sorbitol.. 220 g.
Cyanocobalamin.. 30 mg.
Calcium pantothenate.. 8 g.
Nicotinamide... 20 g.

Excipients and forming substances up to 1 litre. Clear light yellow to a brown solution. GMO-free.

INDICATIONS FOR USE

For the prevention of metabolic disorders and support of the health of farm animals and poultry during convalescence or stress period. Heptran increases appetite and feed conversion, improves metabolism, growth performance and meat quality, supports proper hepatic and renal functions, prevents fatty liver syndrome.

- Stress conditions (transportation, vaccination, diet change, heatstroke, first days of life, weaning)
- Convalescence period
- Stimulation of growth, development and productive performance
- Improving the quality of meat in poultry farming

DESCRIPTION

Heptran is a combination of natural ingredients selected to stimulate energy metabolism and to optimize the overall performance of animals and poultry during critical periods of life.

L-carnitine is an amino acid, which is synthesized in the liver from methionine and lysine. L-carnitine regulates fatty acid metabolism. It is involved in the utilization of fatty acids (excessive deposition of fatty acids in the mitochondria can damage cells, especially cells of the liver, brain and myocardium). It removes the remaining fatty acids from the mitochondria, and then from the cells, and promotes their excretion through the kidneys. Carnitine indirectly stimulates the cells of the immune system by removing excess lipids, which have an immunosuppressive effect.

L-carnitine is also involved in energy metabolism because it is responsible for the transport of long-chain fatty acids into the mitochondria, which allows the body to use additional energy sources and increase energy status (energy metabolism of fatty acids occurs in the mitochondria through beta-oxidation; the mitochondrial membrane is permeable to short- and medium-chain fatty acids and impermeable to long-chain fatty acids), it also increases enzyme activity in the digestive glands and body weight.

Following oral administration, L-carnitine is fully absorbed with maximum serum levels being obtained in 3 hours. It remains within the therapeutic range for 9 hours. L-carnitine accumulates mainly in muscle tissue. It is slowly excreted in the urine and partially reabsorbed by the kidneys.

Sorbitol is an osmotically active ingredient involved in energy metabolism. It has a diuretic, detoxification, choleretic, antispasmodic effect. Sorbitol is quickly absorbed, 80-90% of it is utilized in the liver as glycogen, 5% is deposited in the brain and skeletal muscle, 6-12% is excreted in the urine. Sorbitol is converted by the liver to fructose and then to glucose and glycogen in its metabolism. Partially sorbitol is used for emergency energy needs and the rest is deposited as glycogen.

Magnesium sulphate has anticonvulsant, antiarrhythmic, vasodilating, hypotensive, spasmolytic, weak sedative, choleretic, tocolytic action. It is a source of magnesium. Magnesium is involved in muscular excitement and neurochemical transmission. It prevents penetration of Ca^{2+} through the presynaptic membrane and reduces acetylcholine level peripheral nervous system (PNS) and central nervous system (CNS). Magnesium stimulates intestinal motility and food absorption.

Nicotinamide stimulates the synthesis of nicotinamide adenine dinucleotide (NAD) and nicotinamide adenine dinucleotide phosphate (NADP), which are cofactors of many enzymes. Nicotinamide as NAD and NADP is involved in oxidation-reduction reactions providing the normal metabolic pathways. It is an important link in a series of reactions associated with the metabolism of lipids, proteins, amino acids and purines, tissue respiration, glycogenolysis, biosynthesis processes; it also normalizes lipoprotein blood level.

Calcium pantothenate is converted to pantethine in the body, which is a constituent of coenzyme A, which in turn is involved in the metabolism of lipids, carbohydrates, proteins. It participates in the oxidation and biosynthesis of fatty acids, acetylcholine, steroid hormones and mucopolysaccharides.

Cyanocobalamin is a growth factor. It is necessary for normal blood formation and erythrocyte maturation, synthesis of labile methyl groups, methionine, choline, and nucleic acids. Vitamin B_{12} has a strong lipotropic effect, prevents fatty liver infiltration. It is required for the synthesis and accumulation of proteins, provides an anabolic effect and stimulates the defense mechanism of the body. It is involved in protein synthesis and accumulation. It provides also an anabolic effect. Cyanocobalamin strengthens the immune system due to increased phagocytic activity of leukocytes and activation of reticuloendothelial system function.

DOSAGE AND ADMINISTRATION

Solution for use in drinking water. Heptran may also be poured over feed rations.

The duration of treatment may be changed depending on the veterinarian's discretion and animal's health condition.

Prolonged use, as well as repeated treatment, are not restricted.

The prepared solution should be refreshed every 48 hours.

Target species	Groups of animals	Maintenance dose (stress)	Increased daily dose (convalescence, intensive growth and productivity)
Cattle, horses	Adult	20 ml per animal daily for 5-7 days	50 ml per animal daily for 5 days
	Young	15 ml per animal daily 2-3 times a week	20 ml per animal daily for 5 days
Sheep, goats	Adult	3 ml per animal daily for 5-7 days	10 ml per animal daily for 5 days
	Young	1 ml per animal daily for 5-7 days	5 ml per animal daily for 5 days
Dogs, cats	General recommendations	0,1-0,2 ml per 1 kg body weight daily for 5-7 days	0,3-0,4 ml per 1 kg body weight daily for 7 days

Poultry (broiler chicks, laying hens, turkeys, geese, ducks, ornamental birds)	General recommendations	0,5-1,0 ml per 1 litre of drinking water daily for 7 days	1-2 ml per 1 litre of drinking water daily for 7 days

Poultry farming:

Period	Dosage
First days of life	1-2 ml/L of drinking water for 2-5 days (depending on the state of health of chickens)
During illness	1-2 ml/L of drinking water for 2-5 days
Diet change	1-2 ml/L of drinking water for the period of feed change and adaptation to a new feed
Beginning of egg-laying	1-2 ml/L of drinking water for 2 days every 3-4 weeks up to egg laying-peak
Heatstroke	2-4 ml/L of drinking water for 1-4 hours in the morning and 1-2 ml/L of drinking water for 8-10 hours in the evening
Other stress conditions	1-2 ml/L of drinking water for 1-3 days during and after stress

Dosage to improve the quality of poultry meat (reducing fat infiltration), average daily gain, feed conversion rate:

Broilers	2 ml/L of drinking water for 5 days during the change in diet, then once a week up to slaughter
Laying hens (egg-laying start)	1-2 ml/L of drinking water for 2 days every 3-4 weeks up to the egg-laying peak
Laying hens (egg-laying peak)	2 ml/L of drinking water for 2 days every 2-3 weeks
Fattening geese, ducks	4 ml per bird a day for the first 15 days of fattening

CONTRAINDICATIONS

None known.

ADVERSE REACTIONS

None known.

DRUG INTERACTIONS

Concurrent administration with tetracyclines is not recommended.
Simultaneous administration with vaccines given via drinking water is not allowed.

WITHDRAWAL PERIOD

Meat/Eggs/Milk: Zero days/hours.

SPECIAL WARNINGS

Dispose of any unused product and empty containers in accordance with guidance from your local waste regulation authority.

USER WARNINGS

People with known hypersensitivity to any of the ingredients should avoid contact with the product. Dermal and ocular exposure should be avoided. In case of exposure rinse the skin and/or the eye with water.

STORAGE CONDITIONS AND SHELF LIFE

Store in the original package between 0°C to 35°C, protected from light and moisture.
Shelf life of the veterinary product as packaged for sale: 2 years.
Shelf life after opening the immediate packaging: 30 days at the temperature between 3°C - 5°C (in a refrigerator).
Do not use this veterinary product after the expiry date, which is stated on the label.
Keep out of the sight and reach of children.

MARKETING PACKAGING

Heptran is marketed in polymer cans of 10 L.

MANUFACTURER

Belekotechnika Ltd, 9 Promyshlenny lane, 222823 Svisloch, Pukhovichi region, Minsk area, the Republic of Belarus.
Approved: September 3, 2012.