# **ADIVA<sup>®</sup> Hepatic Cat**

FREE OF INGREDIENTS OF ANIMAL ORIGIN

Complete Dietary Supplement for Cats to Support Normal Hepatic Function Formulated in Highly Palatable Vegetarian Chews

### Introduction

One of the main functions of the liver is the detoxification and metabolism of endogenous and exogenous substances. Hence, liver cells are potentially exposed to many toxins. Oxidative stress and free radical damage are increased in hepatobiliary diseases, playing an essential role in most liver damage.

Hepatic lipidosis is the most frequent hepatic pathology in cats. It consists of an excessive accumulation of triglycerides in hepatocytes. It is thought to be caused by the mobilization of fat from adipose tissue, which accumulates in the hepatic tissue, hence obese cats are at a higher risk of developing it.

Increased plasma levels of liver enzymes are a nonspecific finding in biochemical analysis, common in many chronic and acute processes. They may be an indicator of liver damage or disease, but it is often not easy to reach a definitive diagnosis. Even so, it is important to try to preserve hepatic functionality by promoting all detoxification processes and helping to protect liver tissue from free radical damage. Supplements with hepatoprotective action promote the natural defense mechanisms of the hepatocytes.

Active ingredients per 2 chews (3 g)	
<i>Silybum marianum</i> (Milk thistle) seed extract / phosphatidylcholine complex	12.5 mg
<i>Curcuma longa</i> (Turmeric) root extract / phosphatidylcholine complex	10 mg
Cynara scolymus (Artichoke) leaf extract	50 mg
Choline Chloride	50 mg
L-carnitine	125 mg
Taurine	125 mg
L-Arginine	125 mg
Betaine	25 mg
Thiamine (Vitamin Bı)	13.5 mg
Riboflavin (Vitamin B₂)	0.25 mg
Pyridoxine HCI (Vitamin B₀)	0.175 mg
Folic Acid (Vitamin B₀)	45 µg
Cyanocobalamin (Vitamin B12)	0.105 mg
d-alpha Tocopheryl Acetate (Vitamin E)	12.5 IU
Zinc (Zn Proteinate)	0.55 mg

#### **Inactive ingredients**

Brewer's yeast, calcium sulfate, citric acid, glycerin, maltodextrin, mixed tocopherols, propionic acid, rosemary extract, safflower oil, silicon dioxide, sodium alginate, soy lecithin, vegetable flavor, vegetable oil.



# **Characteristics**

- Unique formula of **15 ingredients** that act synergistically.
- Cat specific formula for the specific hepatic needs of cats.
- Highly palatable chews to improve compliance.
- Free of animal origin ingredients to minimize food allergies.
- Curcumin and silybin in **phytosome** form for increased availability.
- Supports metabolism and liver detoxification functions.
- Helps maintain liver functionality.
- Powerful antioxidant Protects the liver from free radical damage.
- Supports the production of Glutathione and SAMe.
- Promotes tissue repair and regeneration for normal liver function.
- **Does not require fasting** Can be administered with food.
- Compatible with hepatic diets.



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# Mechanism of action

- **Phytosomes** are obtained from a process by which a standardized plant extract or its components are bound to phospholipids (mainly phosphatidylcholine) to obtain a complex with a higher bioavailability. Some of the most widely studied phytosomes are those of curcumin and silybin.
- **Curcumin** promotes glutathione synthesis and helps in hepatic detoxification by reducing free radicals and promoting the body's antioxidant systems. It has also been observed to support a healthy inflammatory response and may increase bile flow and solubility.
- **Silybin** is one of the most active constituents of those present in *Silybum marianum* (Milk thistle) which, together with others, forms the complex known as Silymarin. It acts as an antioxidant, cellular regeneration stimulant and antifibrotic.
- The leaves of **Cynara scolymus** (Artichoke) are a great source of bioactive polyphenols, which have great antioxidant and hepatoprotective activity. It also contains **Cynarin**, a compound that promotes bile production and also supports a healthy inflamatory response.
- **L-carnitine** is involved in the transport of long-chain fatty acids through the mitochondrial membrane. Its supplementation seems to protect obese cats from lipid accumulation in the liver during rapid weight loss.
- **Taurine** and **Arginine** are essential amino acids for cats. Amino acid deficiency can increase hepatic accumulation of lipids by limiting the synthesis of lipoproteins necessary for lipid metabolism and transport. Taurine is necessary for biliary conjugation and promotes ursodiol function. Its deficiency may favor the appearance of cholestasis. Arginine is essential for the normal process of nitrogen detoxification.
- **Choline** plays an essential role in the metabolism of fats as a precursor of phosphatidylcholine. It has been observed that it can help to reduce hepatic fat accumulation by increasing fat mobilization. Its deficiency may lead to fatty liver.
- **Betaine** is a choline derivative that provides methyl groups for the conversion of homocysteine to methionine, supporting the production of SAMe.
- **B Vitamins** are necessary for liver metabolism. Folic acid, Vitamins  $B_{12}$  and  $B_6$  are involved in the metabolism of methionine and help to regulate homocysteine metabolism.
- **Vitamin E** is a powerful antioxidant that protects hepatocyte membrane lipids from oxidation.
- **Zinc** acts as an antioxidant by inhibiting lipid peroxidation and helps to protect the liver against fibrosis. The combined use of Vitamin E and Zinc produces a synergistic action against some types of lipid peroxidation. Zinc and Vitamin E can be useful in cases of hepatic copper accumulation.

# Cautions

If animal's condition worsens or does not improve, stop product administration, and consult your veterinarian. Safe use in pregnant animals or animals intended to breed has not been proven. Store container tightly closed at room temperature and away from direct sunlight.

#### Recommended uses

- Situations affecting liver health in cats.
- Senior and geriatric cats.
- Exposure to substances harmful to the liver.
  Maintenance of liver function and health, favoring the functions of detoxification, protection and regeneration of liver tissue.

### **Directions for use**

**2 chews for up to 10 lbs** once a day or divided into two doses (morning and night).

The duration of treatment should be assessed by the veterinarian in each case.

### **Presentation 60 chews**

