





# Maintains hepatic function in demanding situations

- Detoxifies and protects the hepatic function
- Indicated in fatty liver syndrome
- In cases of lack of appetite
- Protects the liver in anticoccidial, antibiotic and antiparasitic treatments

# Specific formulation for liver protection

- Contains choline chloride to regulate the liver metabolism
- Carnitine has a key role in the energetic metabolism
- With betaine, which increases intracellular water retention
- Silybum marianum has a proven hepatoprotective effect

### **Convenience of use**

- Can be used during laying
- Microdose: 1 ml every 5 litres of water

Liver Prot



# **O Liver Protector Plus** Oral solution

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## Hepatoprotective effects of Silybum marianum



Silybum marianum contains silymarin, a substance with pharmacological effects. Silymarin is a mixture of silybin (50-60%), silichristin (20%) and silydianin (10%), and to a lesser extent, isosylibins A and B, 3-desoxy-silichristin (5%), silandrin and silimonin. Silymarin is mainly an **antioxidant** which prevents lipid peroxidation (antioxidant action in fatty tissues). The absorption of free radicals is one of the key mechanisms for liver protection. It acts in four different ways:

- It collaborates in absorption and regulation of intracellular glutathione, the main antioxidant of the cells.
- It stabilises and regulates the permeability of the cell membrane, preventing the entry of hepatotoxic substances into the hepatocytes.
- It intervenes in the synthesis of the ribosomal RNA, stimulating the regeneration of the liver
- It is an inhibitor of the transformation of the starred liver cells into myofibroblasts (prevents hepatic fibrosis). It prevents the collagen fibres from being deposited in the liver.

In addition, some studies suggest that it has a powerful anticholestatic action, which collaborates in hepatic protection, and inhibits the biosynthesis of cholesterol.



#### **COMPOSITION PER LITRE**

Vitamins, provitamins and chemically well-defined substances with similar effect:

Choline chloride (3a890)	17.81 g
L-carnitine (3a910)	11.88 g
Betaine (3a920)	3.5 g
Natural products:	
Silybum extract	0.125 g
Amino acids, their salts and analogues:	
DL-Methionine (3c301)	9.5 g
Stabilizing and emulsifying agents, thickeners and gelling agents:	
Xanthan gum	1.06 g
Preservative:	
Benzyl alcohol (E 1519)	9.5 g

#### **INDICATIONS**

Liver Protector Plus maintains hepatic function in demanding situations, preventing fatty liver, detoxifying and protecting the vital liver function. It is endowed with the following properties:

- Improves digestion and metabolism of the main feed ingredients, especially fats.
- It aids in the natural detoxification function of the liver.
- Use for lack of appetite, water belly syndrome or hydropericardium.
- Use in conjunction with anticoccidials, antibiotics and antiparasitics.
- Indicated in Fatty Liver Syndrome.

#### **DOSAGE AND ADMINISTRATION ROUTE**

Oral solution to be administered in drinking water. Use 1 ml of Liver Protector Plus for 5 litres of drinking water.

#### **USE DURING OVIPOSITION** Can be used during oviposition.

#### **SPECIAL PRECAUTIONS FOR STORAGE**

Store in a cool and dry place, below 25 °C and protected from light. Shelf life: 2 years stored in its original sealed container.

#### PRESENTATIONS

200 ml and 1 litre bottles. 5 litre jug.

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