1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Gabbrovet 140 mg/ml solution for use in drinking water / milk for pre-ruminant cattle and pigs

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains:

Active substances:
Paromomycin (as sulfate) 140 mg
(equivalent to 140 000 IU of paromomycin activity)
(equivalent to approximately 200 mg of paromomycin sulfate)

Excipients:

Qualitative composition of excipients and other constituents	**Quantitative composition if that information is essential for proper administration of the veterinary medicinal product**
Benzyl alcohol (E1519)	7.5 mg
Sodium metabisulfite (E223)	3.0 mg
Disodium edetate	
Purified water	

Pale yellow to yellow solution

3. CLINICAL INFORMATION

3.1 Target species

Cattle (pre-ruminant), pigs

3.2 Indications for usefor each target species

Treatment of gastro-intestinal infections caused by *Escherichia coli* susceptible to paromomycin.

3.3 Contraindications

Do not use in cases of hypersensitivity to paromomycin, other aminoglycosides or to any of the excipients.
Do not use in cases with impaired function of the kidneys or liver.
Do not use in ruminating animals.
Do not use in turkeys due to the risk of selection for antimicrobial resistance in intestinal bacteria.

3.4 Special warnings

Cross-resistance has been shown between paromomycin and neomycin in Enterobacterales. Use of the product should be carefully considered when susceptibility testing has shown resistance to amynoglycosides because its effectiveness may be reduced.

3.5 Special precautions for use

Special precautions for safe use in the target species:

The uptake of medication by animals can be altered as a consequence of illness. In case of insufficient uptake of water/milk animals should be treated parenterally using a suitable injectable product following the advice of the veterinarian.
The use of the veterinary medicinal product should be combined with good management practices e.g. good hygiene, proper ventilation, no overstocking.
Since the veterinary medicinal product is potentially ototoxic and nephrotoxic, it is recommended to assess kidney function. Special care should be taken when considering administration of the veterinary medicinal product to newborn animals due to the known higher gastrointestinal absorption of paromomycin in neonates. This higher absorption could lead to an increased risk of oto-and nephrotoxicity. The use of the veterinary medicinal product in neonates should be based on benefit-risk assessment by the responsible veterinarian.
Prolonged or repeated use of the veterinary medicinal product should be avoided by improving management practices and through cleansing and disinfection. Use of the product should be based on susceptibility testing of the bacteria isolated from the animal. If this is not possible, therapy should be based on local (regional, farm level) epidemiological information about susceptibility of the target bacteria. Official, national and regional antimicrobial policies should be taken into account when the product is used.
Use of the veterinary medicinal product deviating from the given instructions may increase the prevalence of bacteria resistant to paromomycin and may decrease the effectiveness of treatment with aminoglycosides due to the potential for cross-resistance.
Aminoglycosides are considered as critical in human medicine. Consequently, they should not be used as a first intention treatment in veterinary medicine.

Special precautions to be taken by the person administering the veterinary medicinal product to animals:

This veterinary medicinal product contains paromomycin, which can cause allergic reactions in some people.
People with known hypersensitivity (allergy) to paromomycin or any other aminoglycosides should avoid contact with the veterinary medicinal product.
Avoid contact with the skin and eyes.
Personal protective equipment consisting of protective clothing and impervious gloves should be worn when handling the veterinary medicinal product.
In the event of accidental contact with the skin or eyes, rinse with plenty of water.
If you develop symptoms following exposure, such as skin rash, you should seek medical advice and show the physician this warning. Swelling of the face, lips and eyes or difficulty in breathing are more serious symptoms and require urgent medical attention.
Do not eat, drink and smoke when handling the veterinary medicinal product.
Do not ingest. In case of accidental ingestion, seek medical advice immediately and show the label to the physician.
Wash hands after use.

3.6 Adverse events

Cattle (pre-ruminant) pigs:

Rare (1 to 10 animals / 10,000 animals treated):	Soft stool
Undertermined frequency (cannot be estimated from available data)	Nephropathy[1] Internal ear disorder [1]

[1]Aminoglycoside antibiotics such as paromomycin can cause oto- and nephrotoxicity.

Reporting adverse events is important. It allows continuous safety monitoring of a veterinary medicinal product. Reports should be sent, preferably via a veterinarian, to either the marketing authorisation holder or the national competent authority via the national reporting system. See the package leaflet for respective contact details.

3.7 Use during pregnancy, lactation or lay

Laboratory studies in the rat and rabbit have not produced any evidence of teratogenic, foetotoxic or maternotoxic effects. The use is not recommended during pregnancy.

3.8 Interaction with other medicinal products and other forms of interaction

General anaesthetics and muscle relaxing products increase the neuro-blocking effect of aminoglycosides. This may cause paralysis and apnoea.
Do not use concurrently with strong diuretics and potentially oto- or nephrotoxic substances.

3.9 Administration routes and dosage

In drinking water/milk use.
Pre-ruminant cattle: administration in milk/milk replacer.
Pigs: administration in drinking water.
Duration of treatment: 3-5 days.

Pre-ruminant cattle 1.25 – 2.5 ml of veterinary medicinal product/10 kg BW/day, equivalent to 17500 - 35000 IU of paromomycin per kg BW/day (i.e. approximately 25-50 mg paromomycin sulfate per kg BW/day).

Pigs: 1.25 – 2 ml of veterinary medicinal product/10 kg BW/day, equivalent to 17500 - 28000 IU of paromomycin per kg BW/day (i.e. approximately 25-40 mg paromomycin sulfate per kg BW/day).

Based on the recommended dose and the number and weight of animals to be treated, the exact daily concentration of the veterinary medicinal product should be calculated according to the following formula:

$$\frac{\text{ml veterinary medicinal product/ kg body weight per day} \times \text{average body weight (kg) of animals to be treated}}{\text{average daily water intake (litre) per animal}} = \text{ml veterinary medicinal product per litre of drinking water}$$

To ensure a correct dosage, bodyweight should be determined as accurately as possible.
The intake of medicated water depends on the clinical conditions of the animals and other factors (e.g. local conditions such as ambient temperature and humidity). In order to obtain the correct dosage, intake of drinking water has to be monitored and the concentration of paromomycin has to be adjusted accordingly.

Medicated drinking water/milk/milk replacer and any stock solutions should be freshly prepared every 6 hours (in milk/milk replacer) or every 24 hours (in water).

3.10 Symptoms of overdose (and where applicable, emergency procedures, antidotes)

Paromomycin when administered orally is hardly absorbed systemically. Harmful effects due to accidental overdosing are highly unlikely.

3.11 Special restrictions for use and special conditions for use, including restrictions on the use of antimicrobial and antiparasitic veterinary medicinal products in order to limit the risk of development of resistance

Not applicable.

3.11 Withdrawal period(s)

Cattle:
Meat and offal: 20 days

Pigs:
Meat and offal: 3 days

4. PHARMACOLOGICAL INFORMATION

4.1 ATCvet code:

QA07AA06.

4.2 Pharmacodynamics

Paromomycin belongs to the group of aminoglycoside antibiotics. Paromomycin changes the reading of messenger-RNA, which disrupts protein synthesis. The bactericidal activity of paromomycin is mainly attributed to its irreversible binding to ribosomes. Paromomycin has broad spectrum activity against numerous Gram-positive and Gram-negative bacteria, including *E. coli*.
Paromomycin acts in a concentration-dependant manner. Five mechanisms of resistance have been identified: changes of the ribosomes due to mutations, reduction of permeability of bacterial cell wall or active efflux, enzymatic modification of ribosomes and inactivation of aminoglycosides by enzymes. The first three resistance mechanisms arise from mutations of certain genes on bacterial chromosome. The fourth and fifth resistance mechanism only occurs following uptake of mobile genetic elements coding for resistance. Paromomycin selects for resistance and cross-resistances at high frequency against a variety of other aminoglycosides among intestinal bacteria.

4.3 Pharmacokinetics

Following oral administration of paromomycin, hardly any absorption takes place and the molecule is eliminated unchanged via the faeces.

Environmental properties

The active ingredient paromomycin sulfate is persistent in the environment

5. PHARMACEUTICAL PARTICULARS

5.1 Major incompatibilities

In the absence of compatibility studies, this veterinary medicinal product must not be mixed with other veterinary medicinal products. No information is available on potential interactions or incompatibilities of this veterinary medicinal product administered orally by mixing into drinking water or liquid feed containing biocidal products, feed additives or other substances used in drinking water.

5.2 Shelf life

Shelf life of the veterinary medicinal product as packaged for sale in 125 ml bottles: 1 year
Shelf life of the veterinary medicinal product as packaged for sale in 250 ml bottles: 18 months
Shelf life of the veterinary medicinal product as packaged for sale in 500 ml bottles: 2 years
Shelf life of the veterinary medicinal product as packaged for sale in 1,000 ml bottles: 30 months
Shelf life after first opening the immediate packaging: 6 months.
Shelf life after dilution in drinking water: 24 hours
Shelf life after dilution in milk or milk replacer: 6 hours

5.3 Special precautions for storage

125 ml and 250 ml bottles:
Do not store above 25°C.

500 ml and 1000 ml bottles:
This veterinary medicinal product does not require any special storage conditions.
All Presentations:
After first opening, keep the bottle tightly closed.

5.4 Nature and composition of immediate packaging

Nature of container
- White high density polyethylene bottles
- Polypropylene screw stopper equipped with a polyethylene seal
- Polypropylene dosing device of 30 ml graduated every 5 ml

Pack sizes:
Box containing 1 plastic bottle of 125 ml,
Box containing 1 plastic bottle of 250 ml
Box containing 1 plastic bottle of 500 ml
Box containing 1 plastic bottle of 1,000 ml
Plastic bottle of 125 ml
Plastic bottle of 250 ml
Plastic bottle of 500 ml
Plastic bottle of 1,000 ml

For each listed pack size, a dosing device is joined.

Not all pack sizes may be marketed.

5.5 Special precautions for the disposal of unused veterinary medicinal product or waste materials derived from the use of such products

Medicines should not be disposed of via wastewater or household waste.
Use take-back schemes for the disposal of any unused veterinary medicinal product or waste materials derived thereof in accordance with local requirements and with any national collection systems applicable to the veterinary medicinal product concerned.

6. NAME OF MARKETING AUTHORISATION HOLDER

Ceva Santé Animale

7. MARKETING AUTHORISATION NUMBER(S)

VPA10815/050/001

8. DATE OF FIRST AUTHORISATION

13/04/2018

9 DATE OF THE LAST REVISION OF THE SUMMARY OF THE PRODUCT CHARACTERISTICS

13/03/2026

10 CLASSIFICATION OF VETERINARY MEDICINAL PRODUCTS

Veterinary medicinal product subject to prescription.
Detailed information on this veterinary medicinal product is available in the Union Product Database (https://medicines.health.europa.eu/veterinary).