Summary of Product Characteristics

1 NAME OF THE VETERINARY MEDICINAL PRODUCT

Orafluke 10% w/v Oral Suspension.

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Active Substances	per ml
Fenbendazole	100 mg
Rafoxanide	100 mg
Excipients	
Quinoline Yellow (E104)	0.09 mg
Propyl Parahydroxybenzoate (E216)	0.10 mg
Methyl Parahydroxybenzoate (E218)	1.00 mg

For a full list of excipients, see section 6.1

3 PHARMACEUTICAL FORM

Oral suspension.

A pale lemon, free flowing suspension.

4 CLINICAL PARTICULARS

4.1 Target Species

Cattle.

4.2 Indications for use, specifying the target species

Orafluke 10% w/v Oral Suspension permits a three-way activity against Fluke, Lungworms and Stomach worms in Cattle. It is a broad spectrum anthelmintic for the treatment of benzimidazole susceptible mature and immature stages of nematodes and cestodes of the gastrointestinal and respiratory tracts of cattle.

Cattle:
Haemonchus sp.
Ostertagia sp.
Trichostrongylus sp.
Cooperia sp.
Nematodirus sp.
Bunostomum sp.
Trichuris sp.
Strongyloides sp.
Oesophagostomum sp.
Dictyocaulus sp.
Moniezia sp.
Rafoxanide is active against immature and mature *Fasciola sp.* over 8 weeks of age.
The product has a good therapeutic effect against type II Ostertagiasis.

4.3 Contraindications

None.

4.4 Special warnings for each target species

Where a dosing gun is used to administer the product, care should be taken to avoid causing injury to the mouth and pharynx of animals.

As with other anthelmintics, veterinary advice should be sought on appropriate dosing programmes and stock management to achieve adequate parasite control and reduce the likelihood of anthelmintic resistance developing. If the product does not achieve the desired clinical effect, other diseases, nutritional disturbances or anthelmintic resistance may be involved.

4.5 Special precautions for use

Special precautions for use in animals

Estimate bodyweight accurately. Use properly calibrated equipment.

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

Wash hands after use.
In case of splashes into the eyes, rinse immediately with water.

4.6 Adverse reactions (frequency and seriousness)

None known.

4.7 Use during pregnancy, lactation or lay

Fenbendazole and rafoxanide are safe for use during pregnancy.
See section 4.11.

4.8 Interaction with other medicinal products and other forms of interaction

None known.

4.9 Amounts to be administered and administration route

For oral administration in cattle.
The recommended therapeutic dose is 11.25mg fenbendazole and 11.25mg rafoxanide per kilogram bodyweight
Shake well before use.

Practical dosage recommendations are as follows:

Cattle	
Bodyweight(kg)	**Dose (ml)**
50	5.60
100	11.25
300	33.75
500	56.25

4.10 Overdose (symptoms, emergency procedures, antidotes), if necessary

Orafluke 10 is well tolerated in cattle at three times the recommended dosage.

4.11 Withdrawal Period(s)

Meat: 60 days.
Milk:
Not authorised for use in animals producing milk for human consumption including during the dry period. Do not use during the last trimester of pregnancy in heifers which are intended to produce milk for human consumption.

5 PHARMACOLOGICAL or IMMUNOLOGICAL PROPERTIES

Fenbendazole (QP52AC13) is an anthelmintic belonging to the benzimidazole group which acts by blocking fumarate reductase which results in the inhibition of the formation of adenosine triphosphate (involved in mitochondrial energy).

Rafoxanide (QP52AG05) is a salicylanilide anthelmintic and these are known to be potent uncouplers of oxidative phosphorylation in animal tissues.

5.1 Pharmacodynamic properties

Fenbendazole, like many benzimidazoles, blocks fumarate reductase which results in the inhibition of the formation of adenosine triphosphate (involved in mitochondrial energy). There is also evidence that it inhibits glucose uptake and therefore increases glycogen utilization and depletes the worm's glycogen reserves. The overall effect of this action is to effectively starve the parasite to death. Furthermore, this action results in the detachment of the parasites, but in the case of intestinal helminths, this detachment does not result in loss of contact with the drug, whereas in the case of the liver fluke such detachment would reduce such contact. This probably explains its limited effect on the liver fluke and the good effect on intestinal helminths.
*In vitr*o experiments indicate that salicylanilides, including the commercially used flukicides, oxyclozanide and rafoxanide, uncouple oxidative phosphorylation in *Fasciola hepatica* and other parasites.

5.2 Pharmacokinetic properties

Fenbendazole

Fenbendazole is absorbed poorly from the gastro-intestinal tract leading to low plasma levels of fenbendazole, oxfendazole and sulphone. It is mainly excreted in the faeces though some of the metabolites that have been identified are excreted in the urine and bile. The active and its metabolites are mainly found in the plasma.

Rafoxanide

Kinetic studies of rafoxanide in cattle have shown that it is absorbed into the blood with a mean peak concentration of circa 23 microgram.ml^{-1} achieved in 2 to 3 days. Plasma levels are considerably higher than those in tissues. Only one metabolite has been identified (3,5-di-iodosalicylic acid) and it was found in blood tissues and milk. There is little known or reported on the excretion of rafoxanide though apparently it is excreted in the bile.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Xanthan Gum (E415)
Quinoline Yellow (E104)
Simeticone
Propyl Parahydroxybenzoate (E216)
Methyl Parahydroxybenzoate (E218)
Polysorbate 80
Sodium Citrate (E331)
Sodium Metabisulphite (E223)
Citric Acid Monohydrate
Purified Water

6.2 Incompatibilities

None known.

6.3 Shelf-life

Shelf-life of the veterinary medicinal product as packaged for sale: 3 years.

6.4 Special precautions for storage

Do not store above 25^{o}C.
Protect from freezing and light.

6.5 Nature and composition of immediate packaging

1 L (flat bottom flexi pack, jerrican), 2.5 L (flat bottom flexi pack, back pack), 5 L (jerrican) HDPE white rigid containers closed with a 38 mm HDPP screw cap with a wood pulp PVDC liner.

Not all pack sizes may be marketed.

6.6 Special precautions for the disposal of unused veterinary medicinal products or waste materials

Unused product or waste material should be disposed of in accordance with current practice for pharmaceutical waste under national waste disposal regulations.

7 MARKETING AUTHORISATION HOLDER

Interchem (Ireland) Ltd.,
29 Cookstown Industrial Estate,
Dublin 24,
Ireland.

8 MARKETING AUTHORISATION NUMBER(S)

VPA: 10555/003/002

9 DATE OF THE FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

5th June 2006

10 DATE OF REVISION OF THE TEXT

May 2013