

Punch DRENCH

For Veterinary Use Only

COMPOSITION:

Oxyclanzanide	62.50mg
Oxfendazole	22.85mg
Cobalt Sulphate	1.67mg
Sodium Selenite	0.50mg

INDICATIONS:

Punch drench is indicated for the treatment and control of chronic fascioliasis, mature and developing immature gastrointestinal round worms, tape worms, lung worms in cattle, sheep & goat. It is ocidical against nematodirus eggs. Sodium Selenite & cobalt sulphate provide additional supplement to improve animal performance.

PHARMACOLOGY:

Oxyclanzanide is an anthelmintic of the salicylanilide group. It is effective against fasciola species, acting as an uncoupler of oxidative phosphorylation. It may act at more than one site to decrease levels of ATP leading to metabolic malfunction and death of the parasite. Oxyclanzanide is slowly absorbed after oral administration with peak plasma levels 24 hours after dosing. Excretion is predominantly faecal.

Oxfendazole is a sulphoxide identical to the sulphoxide metabolite of fenbendazole, both are known to be anthelmintically active and metabolically interconvertible. Reduction of oxfendazole to fenbendazole occurs in the ruminal fluid while oxidation of fenbendazole to oxfendazole is carried out by hepatic microsomal enzymes in the liver. Much of fenbendazole's anthelmintic activity is attributed to oxfendazole, the latter being much more potent. Limited information is available regarding oxfendazole pharmacokinetics. Unlike most of the other benzimidazole compounds, oxfendazole is absorbed more readily from the GI tract. The elimination half life has been reported to be about 7.5 hours in sheep and 5.25 hours in goats. Absorbed oxfendazole is metabolized (and vice versa) to the active compound, fenbendazole (sulfoxide) and the sulfone.

Cobalt Sulphate has been recognised as a dietary essential for ruminants since the 1930's. It is peculiar as an essential trace element in ruminant nutrition in that it is stored in the body in limited amounts only and hence symptoms of deficiency can occur very rapidly. The effect of cobalt sulphate in the rumen is to participate in the production of vitamin B12 (produced by ruminal micro-organisms) and compared to omnivores the requirement for vitamin B12 is very much higher.

Cobalt sulphate may also be beneficial in ruminant diets as a means of improving the efficiency of fiber digestion by bacteria. Although cobalt sulphate requirements are less than 1 ppm in the diet, Cobalt sulphate deficiency has devastating effects on animal health. Feeding a well fortified trace mineralized salt containing cobalt sulphate is the best means of insuring that animals get adequate cobalt sulphate nutrition.

The biochemical role of sodium selenite is as a component of the enzyme glutathione peroxidase (GSH-PX). The exact role of GSH-PX in mammalian cells is not fully understood but it is thought to act by protecting cells from oxidizing agents which are capable of irreversibly denaturing essential cellular proteins which leads to degeneration and necrosis, resulting in muscular weakness and white muscle disease commonly associated with sodium selenite deficiency. It is believed that a deficiency in sodium selenite can cause a decrease in the humoral response of animals to vaccination and increase the susceptibility of animals to disease. The symptoms are most pronounced in young fast growing animals.

Drug Interactions:

Punch contains Oxfendazole, so it should not be given concurrently with the bromsalan fluikides (Dibromsalan, Tribromsalan). Abortions in cattle and death in sheep have been reported after using these compounds with oxfendazole.

Carcinogenicity:

Cobalt Sulphate did not cause mutations in most bacterial tests systems studied, but it did cause genetic damage in many tests systems using mammalian cells (NTP 1998). In syrian hamster embryo cells, cobalt sulphate caused cell transformation (Kerckaert et al. 1996) and micronucleus formation (Gibson et al. 1997). In mouse fibroblasts, it caused expression of the p53 tumor-suppressor gene (Duerksen Hughes et al. 1999).

SIDE EFFECTS:

At normal oxyclanzanide dose levels, cattle may show slight softening of the faeces with the occasional animal showing increased frequency of defaecation and transient inappetence. Aforesaid untoward actions are the only undesired effects of Punch, as oxfendazole is devoid of adverse effects at this dose. However, hypersensitivity reactions secondary to antigen release by dying parasites are theoretically possible, particularly with high dose.

TOXICITY:

The effects of oxyclanzanide overdosage are dullness and some loosening of faeces, possible diarrhoea, inappetence and loss of weight in cattle. These effects are occasionally enhanced in animals with severe liver damage and/or dehydration at the time of dosing. The oral LD 50 in female rats was 3519mg oxyclanzanide/kg bw. Signs of acute toxicity were blood staining of muzzle, pallor, diarrhoea, increased respiration, lethargy, faecal and

urine staining of perineum. At autopsy congestion of several organs, signs of liver toxicity fattiness, accentuation of lobular structure) and dilated fluid filled uterus were found. Other oral LD 50 values in rats, mice and rabbits were in the range of 310mg/kg bw to more than 2000mg/kg bw, but could not be assessed because the original reports were not Available. Tolerance data in cattle and sheep showed that relatively low single doses (15mg/kg bw) could already have adverse effects on central nervous system and intestinal function (behavioural depression, diarrhoea, and inappetence). At higher doses the severity of signs of toxicity increased and mortality occurred at 50mg/kg bw and higher. Presumably these side effects were due to the pharmacodynamic action of the substance.

DOSAGE & ADMINISTRATION:

Sheep/Goat		Cattle	
1ml/4.5kg body weight		5ml/25kg body weight	
Body weight	Dose	Body weight	Dose
9kg	2ml	100kg	20ml
13.5kg	3ml	150kg	30ml
18kg	4ml	200kg	40ml
22.5kg	5ml	250kg	50ml
27kg	6ml	300kg	60ml
31.5kg	7ml	350kg	70ml
36kg	8ml		
40.5kg	9ml		
45kg	10ml		
Above 45kg should be given a further 1ml for each additional 4.5kg		Above 350kg should be given a further 5ml for each additional 25kg	

PRECAUTIONS:

The body weight of animals should be assessed as accurately as possible before calculating the dosage. Care must be taken when administering by dosing gun. Do not use in known cases of hypersensitivity to the active ingredients. At the normal dose level, oxyclanzanide may sometimes cause slight softening of the faeces in cattle with the occasional animal showing increased frequency of defecation and transient inappetence. Side effects are occasionally enhanced in animals suffering from severe liver damage and/or dehydration at the time of dosing.

WITHDRAWAL TIME:

Meat: 14 days.

Milk: 1 day.

WARNINGS:

For animal treatment only. Shake well before use.

Store between 15-25°C in a cool and dry place. Consult the veterinarian before use.

Protect from light and heat. Keep out of the reach of children.

Selmore's Specs.



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