## TiaGard® 12.5%

## (tiamuliln hydrogen fumarate)

# Liquid Concentrate 12.5% Tiamulin hydrogen fumarate

Approved by FDA under ANADA # 200-717

#### **Description:**

TiaGard 12.5% (tiamulin hydrogen fumarate) Liquid Concentrate is a solution containing 12.5% tiamulin hydrogen fumarate (w/v) in an aqueous solution. The active ingredient, tiamulin hydrogen fumarate, chemically is 14-desoxy-14-[(2-diethylaminoethyl) mercaptoacetoxy] mutilin hydrogen fumarate, a semi-synthetic diterpene antibiotic. TiaGard 12.5% Liquid Concentrate is for use only in preparing medicated drinking water for swine.

#### Actions:

Tiamulin is active against *Brachyspira* (formerly *Serpulina* or *Treponema*) *hyodysenteriae* and *Actinobacillus pleuropneumoniae*. It is readily absorbed from the gut and can be found in the blood within 30 minutes after dosing.

#### Indications:

TiaGard 12.5% (tiamulin hydrogen fumarate), when administered in the drinking water for five consecutive days, is an effective antibiotic for the treatment of swine dysentery associated with *Brachyspira* (formerly *Serpulina* or *Treponema*) *hyodysenteriae* susceptible to tiamulin at a dose level of 3.5 mg tiamulin hydrogen fumarate per pound of body weight daily and for treatment of swine pneumonia due to *Actinobacillus pleuropneumoniae* susceptible to tiamulin when given at 10.5 mg tiamulin hydrogen fumarate per pound of body weight daily.

#### Contraindications:

Swine being treated with TiaGard 12.5% (tiamulin hydrgen fumarate) should not have access to feeds containing polyether ionophores (e.g., monensin, lasalocid, narasin, salinomycin and semduramicin) as adverse reactions may occur.

#### Residue Warnings:

Withdraw medicated water 3 days before slaughter after treatment at 3.5 mg per pound and 7 days before slaughter following treatment at 10.5 mg per pound body weight.

#### Warning:

Keep out of reach of children. Avoid direc contact with skin. Direct contact with skin or mucous membranes may cause irritation.

Caution: For use in drinking water of swine only - Not for use in humans
Prepare fresh medicated water daily. Use as the only source of
drinking water for 5 days. The effects of tiamulin on swine reproductive
performance, pregnancy and lactation have not been determined.

#### Adverse Reactions:

Overdoses of tiamulin hydrogen fumarate have sometimes produced transitory salivation, vomiting and an apparent calming effect on the pig. If signs of toxicity occur, discontinue use of medicated water and replace with clean, fresh water. In rare cases, redness of the skin primarily over the ham and underline has been observed during medication. If these signs appear, discontinue use of this drug. Provide ample clean drinking water. Thoroughly rinse (hose down) the housing to remove urine and feces from animal contact surfaces or move the animals to clean pens. If the condition persists, consult your veterinarian. Studies to evaluate the safety of the water soluble form of tiamulin in breeding swine have not been done.

#### **Use Directions:**

The concentration of tiamulin hydrogen fumarate in the drinking water must be adjusted to compensate for variation in water consumption due to weight or size of the pig, environmental temperature and other factors. It is important that pigs receive the proper drug dose, 3.5 mg tiamulin hydrogen fumarate per pound for swine dysentery or 10.5 mg tiamulin hydrogen fumarate per pound for swine pneumonia, each day for 5 consecutive days.

#### Directions for preparing TiaGard 12.5% medicated solutions

Determine the amount of TiaGard 12.5% Liquid Concentrate needed to medicate the desired volume of drinking water at the proper concentration. Carefully measure out this amount, add it to the water and stir to thoroughly mix.

	this bottle will treat for Iter consumption per pi		
Net tiamulin hydrogen fumarate content:  Diseases to be treated:		625,000 mg	
		Swine Dysentery	Swine Pneumonia
Daily tiamulin hydrogen fumarate required per pound body weight:		3.5 mg	10.5 mg
Required treatment duration:		5 days	5 days
Pig Wt, Ib	Water Intake, gal 0.3 - 0.5	# of pigs 8,930	# of pigs 2,975
45	0.4 - 1.1	3,970	1,325
75 125 180	0.7 - 1.5 1.0 - 2.0 1.2 - 3.0	2,380 1,430 990	795 475 330
Suggested final dilution of:	1 bottle (5 Liters) 3 bottles (15 Liters) 1/2 bottle (2.5 Liters)	2750 gal 8250 gal 1375 gal	917 gal 2750 gal 458 gal
Tiamulin hydrogen fumarate concentration 227 mg per gallon at suggested final dilution* (60 ppm)			681 mg (180 ppm)

- 1. Prepare fresh medicated drinking water every day for the 5 day treatment period.
- 2. Water medicated with TiaGard 12.5% should be the only source of drinking water during the treatment period.
- \*3. Increase or decrease dilution rate as required to obtain proper daily drug dose.

#### Directions for using TiaGard 12.5%

In medicated proportioners: One liter of TiaGard 12.5% Liquid Concentrate mixed with water to make 4.3 gallons of stock solution and this stock solution metered at one fluid ounce per gallon will provide 227 mg of tiamulin hydrogen fumarate per gallon to 550 gallons of drinking water for treatment of swine dysentery. Five liters of TiaGard 12.5% Liquid Concentrate mixed with water to make 21.5 gallons of stock solution and this stock solution metered at one fluid ounce per gallon will provide 227 mg of tiamulin hydrogen fumarate per gallon to 2750 gallons of drinking water for treatment of swine dysentery Three liters of TiaGard 12.5% Liquid Concentrate mixed with water to make 4.3 gallons of stock solution and this stock solution metered at one fluid ounce per gallon will provide 681 mg tiamulin hydrogen fumarate per gallon to a total of 550 gallons of drinking water for treatment of swine pneumonia. Fifteen liters of TiaGard 12.5% Liquid Concentrate mixed with water to make 21.5 gallons of stock solution and this stock solution metered at one fluid ounce per gallon will provide 681 mg tiamulin hydrogen fumarate per gallon to a total of 2750 gallons of drinking water for treatment of swine pneumonia.

In barrels or tanks: One liter (1000 mL) of TiaGard 12.5% Liquid Concentrate will medicate 550 gallons of drinking water at 227 mg per gallon for treatment of swine dysentery or 183 gallons at 681 mg per gallon for treatment of swine pneumonia at 381 mg per gallon for treatment of swine pneumonia.

Measure TiaGard 12.5% Liquid Concentrate carefully, pour into the proper amount of water and thoroughly mix. The concentration of tiamulin hydrogen fumarate in the stock solution and in the drinking water delivered must be adjusted to compensate for variation in water consumption by pigs due to body weight, environmental and other factors. It is important that the pigs receive the proper drug dose of 3.5 mg of tiamulin hydrogen fumarate per pound of body weight daily for 5 consecutive days for treatment of swine dysentery or a dose of 10.5 mg per pound body weight daily for 5 consecutive days for treatment of swine pneumonia.

**Attention:** If no response to treatment is obtained within 5 days re-establish the diagnosis. Failure of response may be related to the presence of non-susceptible organisms of other complicating disease conditions. Because of the tendency for the disease to recur on premises with a history of swine dysentery or with swine pneumonia, a control program should be implemented after treatment. Drugs are not substitutes for proper sanitary measures or good management, but should be used in conjunction with such practices.

### How supplied:

Container Size	Active Ingredients	
1 Liter bottle	12.5% (125.0 g)	
(33.8 fl oz; 1000 mL)	Tiamulin hydrogen fumarate	
5 Liter bottle	12.5% (625.0 g)	
(169 fl oz; 5000 mL)	Tiamulin hydrogen fumarate	

#### STORAGE AND HANDLING

**Protect from direct sunlight.** Store at controlled room temperature, 59 °–77 °F (15 °–25 °C). Use stock solutions within 24 hours after preparation. Do not store stock or diluted solutions in galvanized metal containers.

#### Observe expiration date.

To report suspected adverse drug events, for technical assistance or to obtain a copy of the Safety Data Sheet, contact Aurora Pharmaceutical at 1-888-215-1256 or http://www.auroraphar-

To report suspected adverse drug events, for technical assistance or to obtain a copy of the Safety Data Sheet, contact Aurora Pharmaceutical at 1-888-215-1256 or http://www.aurorapharmaceutical.com. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or http://www.fda.gov/reportanimalae.

Restricted Drug (California): Use only as directed.



1 Liter

REORDER NO: 22001

MANUFACTURED BY:

Aurora Pharmaceutical, Inc.NORTHFIELD, MINNESOTA 55057

1-888-215-1256

www.aurorapharmaceutical.com

5 Liter

REORDER NO: 22002

MANUFACTURED BY:

Aurora Pharmaceutical, Inc.NORTHFIELD, MINNESOTA 55057 1-888-215-1256

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Rev. 07/2022

Net tiamulin hydrogen fumarate content:  Diseases to be treated:  Daily tiamulin hydrogen fumarate required per pound body weight:  Required treatment duration:		125,000 mg	
		Swine Dysentery	Swine Pneumonia
		3.5 mg 5 days	10.5 mg 5 days
20	0.3 - 0.5	1,786	595
45	0.4 - 1.1	794	265
75	0.7 - 1.5	476	159
125	1.0 - 2.0	286	95
180	1.2 - 3.0	198	66
Suggested	1 bottle (1 Liter)	550 gal	183 gal
final dilution of:	3 bottles (3 Liters)	1650 gal	550 gal
	1/2 bottle (2.5 Liters)	275 gal	92 gal
Tiamulin hydrogen fumarate concentration 227 mg		n 227 mg	681 mg
per gallon at sugg	gested final dilution*	(60 ppm)	(180 ppm)