Date of Approval: February 16, 2005

FREEDOM OF INFORMATION SUMMARY

ORIGINAL ABBREVIATED NEW ANIMAL DRUG APPLICATION

ANADA 200-344

Tiamulin Soluble Antibiotic
(tiamulin)

Water Soluble Powder

Swine

For oral use in the treatment of swine dysentery and pneumonia

Sponsored by:

Phoenix Scientific, Inc.

FREEDOM OF INFORMATION SUMMARY

1. GENERAL INFORMATION:

a. File Number:	ANADA 200-344
b. Sponsor:	Phoenix Scientific, Inc. 3915 South 48th St. Terrace St. Joseph, MO 64503 Drug Labeler Code: 059130
c. Established Names:	Tiamulin hydrogen fumarate
d. Proprietary Name:	Tiamulin Soluble Antibiotic
e. Dosage Form:	Soluble powder
f. How Supplied:	2.28 oz (64.6 g) and 6.84 oz (193.8 g) foil packets
g. How Dispensed:	OTC
h. Amount of Active Ingredients:	45% w/w tiamulin
i. Route of Administration:	Oral
j. Species/Class:	Swine/Weighing less than 250 pounds.
k. Recommended Dosage:	Administered in the drinking water for five consecutive days for the treatment of swine dysentery associated with *Brachyspira hyodysenteriae* susceptible to tiamulin at a dose level of 3.5 mg tiamulin per pound of body weight daily and for treatment of swine pneumonia due to *Actinobacillus pleuropneumoniae* susceptible to tiamulin when given a 10.5 mg tiamulin per pound of body weight daily.
l. Pharmacological Category:	Antibiotic
m. Indications:	For the treatment of swine dysentery associated with *Brachyspira hyodysenteriae* susceptible to tiamulin and swine pneumonia due to *Actinobacillus pleuropneumoniae* susceptible to tiamulin.
n. Pioneer Product:	DENAGARD Soluble Antibiotic; tiamulin; NADA 134-644; Boehringer Ingelheim Vetmedica, Inc.

2. TARGET ANIMAL SAFETY AND DRUG EFFECTIVENESS:

Under the provisions of the Federal Food, Drug, and Cosmetic Act, as amended by the Generic Animal Drug and Patent Term Restoration Act (GADPTRA) of 1988, an Abbreviated New Animal Drug Application (ANADA) may be submitted for a generic version of an approved new animal drug (pioneer product). New target animal safety and effectiveness data and human food safety data (other than tissue residue data) are not required for approval of an ANADA.

Ordinarily, the ANADA sponsor shows the generic product is bioequivalent to the pioneer, which has been shown to be safe and effective. If bioequivalence is demonstrated through a clinical endpoint study, then a tissue residue study to establish the withdrawal time for the generic product should also be conducted. For certain dosage forms, the agency will grant a waiver from the requirement of an *in vivo* bioequivalence study. (55 FR 24645, June 18, 1990; Fifth GADPTRA Policy Letter; Bioequivalence Guidance, revised October 9, 2002).

Based on the formulation characteristics of the generic product Phoenix Scientific, Inc. was granted a waiver from the requirement of an *in vivo* bioequivalence study for Tiamulin (tiamulin) Soluble Antibiotic. The generic product is administered as an oral solution, contains similar active ingredients in the same concentration and dosage form as the pioneer product, and contains no inactive ingredients that may significantly affect the absorption of the active ingredient. The pioneer product DENAGARD (tiamulin) Soluble Antibiotic, the subject of Boehringer Ingelheim Vetmedica, Inc., NADA 134-644, was approved on September 15, 1983.

3. HUMAN SAFETY:

- **Tolerance for Residues:**

  The tolerances established for the pioneer product apply to the generic product. A tolerance of 0.6 ppm is established for 8-*alpha*-hydroxymutilin (marker compound) in liver (target tissue) of swine under 21 CFR 556.738.

- **Withdrawal Times:**

  Because a waiver of the *in vivo* bioequivalence study was granted, the withdrawal times are those previously assigned to the pioneer product.

  The withdrawal times established for tiamulin soluble powder under 21 CFR 520.2455 are: 1) 3 days before slaughter when given to swine at a dose of 3.5 mg of tiamulin per pound of body weight for 5 days, and 2) 7 days before slaughter when given to swine at a dose of 10.5 mg per pound of body weight for 5 days.

- **Regulatory Method for Residues:**

  The determinative analytical method (GC) and the confirmatory analytical method (GC-MS) for determining 8-*alpha*-hydroxymutilin in swine liver are on file at the Center for Veterinary Medicine, FDA, 7500 Standish Place, Rockville, MD 20855.

4. AGENCY CONCLUSIONS:

This Abbreviated New Animal Drug Application (ANADA) filed under section 512(b)(2) of the Federal Food, Drug, and Cosmetic Act satisfies the requirements of section 512(n) of the act and demonstrates that Tiamulin Soluble Antibiotic, when used under its proposed conditions of use, is safe and effective for its labeled indications.

5. ATTACHMENTS:

Facsimile generic labeling and currently approved pioneer labeling are attached as follows:

Generic Labeling for ANADA 200-344:
Tiamulin (tiamulin) Soluble Antibiotic
Packet Label – (Front and Back), 2.28 oz (64.6 g) and 6.84 oz (193.8 g) foil packets;
24 x 2.28 oz container label;
12 x 6.84 oz container label;
Package Insert

Pioneer Labeling for NADA 134-644:
DENAGARD (tiamulin) Soluble Antibiotic
Single Packet Label – 2.28 oz (64.4 grams);
20 packet container label;
Package Insert

(Note: The latest nomenclature for the agent associated with swine dysentery, *Brachyspira hyodysenteriae*, appears on the generic labeling but the former name, *Serpulina hyodysenteriae*, appears on the pioneer labeling. The pioneer product DENAGARD (Tiamulin) Soluble Antibiotic is not currently marketed so its labeling does not reflect up to date nomenclature. Rather than copy older nomenclature, CVM recommends that the generic sponsor use the current terminology for the agent associated with swine dysentery, *Brachyspira hyodysenteriae*.)