Date of Approval: December 22, 1999

FREEDOM OF INFORMATION SUMMARY

SUPPLEMENTAL NEW ANIMAL DRUG APPLICATION

NADA 65-480

Chlortetracycline (CTC)

Soluble Powder

Sponsored by:

Pennfield Oil Inc.

FREEDOM OF INFORMATION SUMMARY

1. GENERAL INFORMATION

NADA Number	65-480
Sponsor:	Pennfield Oil Company Omaha, Nebraska 68144
Generic Name:	Chlortetracycline HCl
Trade Name:	Chlortetracycline Soluble Powder
Marketing Status:	OTC
Effect of the supplement:	To revise withdrawal period in swine to zero day.

2. INDICATION FOR USE: Control and treatment of bacterial enteritis (scours) caused by *Escherichia coli* and bacterial pneumonia associated with *Pasteurella* spp., *Actinobacillus pleuropneumoniae* (*Hemophilus* spp.) and *Klebsiella* spp. For use in swine and calves.

3. A. DOSAGE FORM: Soluble Powder

   B. ROUTE OF ADMINISTRATION: Oral-For use in drinking water

   C. RECOMMENDED DOSAGES: 10 mg per pound body weight in divided doses

4. EFFECTIVENESS: No further effectiveness data were required.

   ANIMAL SAFETY: No further safety data were required.

6. HUMAN SAFETY

A. TOLERANCE

The FDA has established tolerances for the sum of residues of tetracyclines, including chlortetracycline, oxytetracycline and tetracycline, in tissues of beef cattle, non-lactating dairy cows, calves, swine, sheep, chickens, turkeys and ducks (61 FR 67453, December 23, 1996). The tolerances established for chlortetracycline under 21 CFR 556.150 are as follows: 2 ppm in muscle, 6 ppm in liver, and 12 ppm in kidney and fat.

B. RESIDUE DEPLETION STUDY AND CALCULATION OF A REVISED WITHDRAWAL PERIOD

1. Study number: 403-72-1

2. Study report title: "Report of Chlortetracycline Depletion Studies in the Tissues of Swine Following Oral Administration in the Drinking Water of 10 mg Chlortetracycline per Pound Body Weight for a 45 Day Duration," Project No. 403-72-1, February 8, 1973.

3. Investigators: G. Shipley, DVM,
Director of Clinical Research,
Philips Roxane Clinical Research Farm
Crosby, MO.

4. General Design

   a. Purpose: This is a tissue residue depletion study for chlortetracycline HCl soluble powder conducted in swine. The study was conducted to comply with Good Laboratory Practices, 21CFR 58. Tissue analyses were conducted by S. Houston, Director of the Analytical Department, Analytical Department, Philips Roxane, Inc., St. Joseph, MO.

   b. Animals: Nine healthy pigs, weight 38-45 pounds.

   c. Dosage form: Soluble powder mixed in drinking water to deliver 10 mg chlortetracycline *per* pound body weight.

   d. Route of administration: Orally.

   e. Doses: Continuously in the drinking water.

f. Test Duration: 45 days

g. Pertinent Parameters Measured: Approximately 150 g each of liver, kidney, muscle, fat, and skin.

5. Results

Residue analyses were conducted at the Analytical Department, Philips Roxane, Inc., St. Joseph, MO, using an adapted validated microbiological assay. Tissue residue values are presented in Table 6.1.

Table 6.1 Mean residues (ppm ± SD) of chlortetracycline in swine tissues following oral administration of chlortetracycline soluble powder at a dose of 10 mg/lb body weight for 45 days.

Withdrawal	Tissue				
	Liver	**Kidney**	**Muscle**	**Fat**	**Skin**
6 hours	0.52±0.06	1.22±0.38	0.37±0.16	0.63±0.84	0.39±0.19
5 days	0.16±0.04	0.32±0.09	0.06±0.03	0.08±0.06	0.40±0.06
10 days	0.10±0.04	0.27±0.07	0.06	0.20±0.08	0.08±0.04

6. Conclusions

A statistical tolerance limit algorithm was used to calculate a withdrawal period with a 99th percentile tolerance limit with 95% confidence. These residue data demonstrate that a zero day preslaughter withdrawal period may be applied to the oral administration of chlortetracycline in swine at a dose of 10 mg/lb BW.

C. REGULATORY ANALYTICAL METHOD FOR RESIDUES

The regulatory analytical method for detection of residues of the drug is a microbiological test using *Bacillus cereus* var. *mycoides* (ATCC 11778). The method is found in Antibiotic Residues in Milk, Dairy Products, and Animal Tissues: Methods, Reports and Protocols, Revised October 1968, Reprinted December 1974, Nation Center for Antibiotic and Insulin Analysis, FDA, Washington, DC 20204. The level of sensitivity of the assay is 0.04 ppm for chlortetracycline.

7. AGENCY CONCLUSIONS:

This supplemental NADA satisfies the requirements of section 512 of the Act and demonstrates that Chlortetracycline Soluble Powder when used under its proposed conditions of use, is safe and effective for the labeled indications. The supplemental approval provides for the use of this Chlortetracycline Soluble Powder fed to swine with a zero day withdrawal period.

Under the Center's supplemental approval policy [21 CFR 514.106(b)(2)(x)] this is a Category II change. The approval of this change is not expected to have any adverse effect on the safety or effectiveness of this new animal drug. However, the approval did require a re-evaluation of the human food safety data in the parent application.

8. **Labeling: See Attachment**

Chlortetracycline Soluble Powder
25.6 OZ. PACKET LABELING