

Date of Approval: September 20, 2019

**FREEDOM OF INFORMATION SUMMARY**  
**ORIGINAL ABBREVIATED NEW ANIMAL DRUG APPLICATION**

**ANADA 200-643**

**Monovet<sup>®</sup> and Tylan<sup>™</sup>**

**(monensin Type A medicated article) and (tylosin phosphate)**

**Type A medicated articles to be used in the manufacture of Type  
B and Type C medicated feeds**

**Cattle fed in confinement for slaughter**

Original abbreviated new animal drug approval of a medicated feed combination for the  
indications listed in Section I.L

**Sponsored by:**

**Huvepharma EOOD**

## Table of Contents

I. GENERAL INFORMATION.....	3
II. BIOEQUIVALENCE .....	5
III. EFFECTIVENESS .....	5
IV. TARGET ANIMAL SAFETY.....	5
V. HUMAN FOOD SAFETY .....	5
VI. USER SAFETY.....	6
VII. AGENCY CONCLUSIONS.....	6

**I. GENERAL INFORMATION**

**A. File Number**

ANADA 200-643

**B. Sponsor**

Huvepharma EOOD,  
5<sup>th</sup> Floor, 3A Nikolay Haytov Str.,  
113 Sofia, Bulgaria

Drug Labeler Code: 016592

US Agent Name and Address:  
Kelly Beers, Ph.D.  
Huvepharma, Inc.  
545 West Park Drive  
Peachtree City, GA 30269

**C. Proprietary Name**

Monovet<sup>®</sup> and Tylan<sup>™</sup>

**D. Drug Product Established Name**

monensin Type A medicated article and tylosin phosphate

**E. Pharmacological Categories**

Monovet<sup>®</sup>: Ionophore, anticoccidial  
Tylan<sup>™</sup>: Antimicrobial

**F. Dosage Form**

Type A medicated articles for use in the manufacture of Type B and Type C medicated feeds.

**G. Amount of Active Ingredients in Currently Marketed Products<sup>1</sup>**

Monovet<sup>®</sup>: 90.7 g/lb of monensin  
Tylan<sup>™</sup>: 40 g/lb and 100 g/lb of tylosin

**H. How Supplied**

Monovet<sup>®</sup> (monensin Type A medicated article): 55.12 lb (25 kg) bags  
Tylan<sup>™</sup> (tylosin phosphate): 50 lb (22.68 kg) bags

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<sup>1</sup> The sponsors of these individual currently marketed Type A medicated articles may have approvals for other strengths of these products that are for use in the same species and class, for the same indications, and at the same dosages, but are not currently marketing those strengths of these Type A medicated articles. Such strengths, when legally marketed, are also approved for use in the manufacture of Type B and Type C medicated feeds that are the subject of this approval.

**I. Dispensing Status**

VFD

**J. Route of Administration**

Oral

**K. Species/Class**

Cattle fed in confinement for slaughter

**L. Indications and Dosage Regimens**

1. For improved feed efficiency and reduction of incidence of liver abscesses caused by *Fusobacterium necrophorum* and *Arcanobacterium (Actinomyces) pyogenes* in cattle fed in confinement for slaughter.

a. 5 to 40 g/ton of Monovet<sup>®</sup> for improved feed efficiency in cattle fed in confinement for slaughter.

b. 8 to 10 g/ton of Tylan<sup>™</sup> for reduction of incidence of liver abscesses caused by *Fusobacterium necrophorum* and *Arcanobacterium (Actinomyces) pyogenes* in cattle fed in confinement for slaughter.

Feed continuously as sole ration to provide 50 to 480 mg/hd/day monensin and 60 to 90 mg/hd/day tylosin. No additional improvement in feed efficiency has been shown from feeding monensin at levels greater than 30 g/ton (360 mg monensin per head per day).

2. For prevention and control of coccidiosis due to *Eimeria bovis* and *E. zuernii* and reduction of incidence of liver abscesses caused by *Fusobacterium necrophorum* and *Arcanobacterium (Actinomyces) pyogenes* in cattle fed in confinement for slaughter.

a. 10 to 40 g/ton of Monovet<sup>®</sup> for prevention and control of coccidiosis due to *Eimeria bovis* and *E. zuernii* in cattle fed in confinement for slaughter.

b. 8 to 10 g/ton of Tylan<sup>™</sup> for reduction of incidence of liver abscesses caused by *Fusobacterium necrophorum* and *Arcanobacterium (Actinomyces) pyogenes* in cattle fed in confinement for slaughter.

Feed continuously as sole ration to provide 0.14 to 0.42 mg monensin/lb body weight per day, depending on the severity of the coccidiosis challenge, up to 480 mg/hd/day and 60 to 90 mg/hd/day tylosin.

**M. Reference Listed New Animal Drug Combination**

Rumensin<sup>™</sup> (monensin Type A medicated article) and Tylan<sup>™</sup> (tylosin phosphate); NADA 104-646; Elanco US Inc.

**N. Approved Original Generic Type A Medicated Article**

Monovet® (monensin Type A medicated article); ANADA 200-639; Huvepharma EOOD

**O. Individual Type A medicated articles approved for use in the manufacture of the Type B and Type C combination medicated feeds in this application**

Monovet® (monensin Type A medicated article); ANADA 200-639; Huvepharma EOOD

Tylan™ (tylosin phosphate); NADA 012-491; Elanco US, Inc.

**II. BIOEQUIVALENCE**

Under the provisions of the Federal Food, Drug, and Cosmetic Act (FD&C 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 (reference listed new animal drug). 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.

According to CVM's fourth policy letter issued on November 2, 1989, with regard to the implementation of GADPTRA, after the approval of an ANADA for a generic Type A medicated article, the generic sponsor is entitled to approval for all the feed-mixed combinations for which the RLNAD is approved. Bioequivalence and tissue residue studies are not required for the approval of the generic feed use combinations (Type B or C medicated feeds). Monensin is codified under 21 CFR 558.355, tylosin is codified under 21 CFR 558.625. The combination of monensin type A medicated article and tylosin is codified under 21 CFR 558.625.

**III. EFFECTIVENESS**

CVM did not require effectiveness studies for this approval.

**IV. TARGET ANIMAL SAFETY**

CVM did not require target animal safety studies for this approval.

**V. HUMAN FOOD SAFETY**

The following are assigned to this product for cattle fed in confinement for slaughter:

**A. Acceptable Daily Intake and Tolerances for Residues**

The acceptable daily intake (ADI) for total residues of monensin is 12.5 micrograms *per* kilogram of body weight *per* day. The tolerances established for the feed use RLNAD apply to the generic feed use combination new animal drug product. A tolerance of 0.10 parts *per* million (ppm) is established for residues of monensin (the marker residue) in liver, and 0.05 ppm in muscle, kidney and fat, under 21 CFR 556.420.

An ADI is not cited for total residues of tylosin. The tolerances established for the feed use RLNAD apply to the generic feed use combination new animal drug

product. A tolerance of 0.2 ppm is established for residues of tylosin (the marker residue) in fat, muscle, liver and kidney, under 21 CFR 556.740.

#### **B. Withdrawal Period**

Consistent with CVM's fourth policy letter issued on November 2, 1989, with regard to the implementation of GADPTRA, after the approval of an ANADA for a generic Type A medicated article, the generic sponsor is entitled to approval for all the feed-mixed combinations for which the RLNAD is approved. Tissue residue studies are not required for the approval of the generic feed use combinations (Type B or Type C medicated feeds).

To this end, the withdrawal period for the generic combination Type B and Type C medicated feeds are those previously assigned to the RLNAD feed use combination. When used together, Monovet<sup>®</sup> (monensin Type A medicated article) and Tylan<sup>™</sup> (tylosin phosphate) are approved with a 0-day withdrawal period.

#### **C. Analytical Method for Residues**

The validated analytical method for analysis of residues of monensin and tylosin are on file at the Center for Veterinary Medicine, 7500 Standish Place, Rockville, MD 20855. To obtain a copy of the analytical method, please submit a Freedom of Information request to:  
<https://www.accessdata.fda.gov/scripts/foi/FOIRequest/requestinfo.cfm>.

### **VI. USER SAFETY**

CVM did not require user safety studies for this original approval.

### **VII. AGENCY CONCLUSIONS**

This information submitted in support of this ANADA satisfies the requirements of section 512(n) of the FD&C Act and demonstrates that Monovet<sup>®</sup> and Tylan<sup>™</sup>, when used according to the label, are safe and effective.

Additionally, data demonstrate that residues in food products derived from cattle fed in confinement for slaughter administered Monovet<sup>®</sup> and Tylan<sup>™</sup> will not represent a public health concern when the combination medicated feed is used according to the label.