SECTION 1: IDENTIFICATION

1.1. Product Identifier
Product Form: Substance
Product Name: TyloMed Soluble Powder (Tylosin Tartrate Soluble Powder)

1.2. Intended Use of the Product
Use of the substance/mixture: Veterinary Macrolide antibiotic

1.3. Name, Address, and Telephone of the Responsible Party
Company
Bimeda Inc.
One Tower Lane
Oakbrook Terrace Tower
Oakbrook Terrace, IL 60181
T 630-928-0361
F 630-928 0362
www.bimedaus.com

1.4. Emergency Telephone Number
Emergency Number: 519-654-8055, 800-424-9300 CHEMTREC (in US); +1 703-527-3887 CHEMTREC (International and Maritime)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture
GHS-US classification
Comb. Dust
Eye Irrit. 2A H319
Skin Sens. 1 H317
Full text of H-phrases: see section 16

2.2. Label Elements
GHS-US Labeling
Hazard Pictograms (GHS-US): ☠️

Signal Word (GHS-US): Warning
Hazard Statements (GHS-US): May form combustible dust concentrations in air.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.

Precautionary Statements (GHS-US):
P261 - Avoid breathing dust.
P264 - Wash hands, forearms, and exposed areas thoroughly after handling.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P280 - Wear eye protection, protective clothing, protective gloves.
P302+P352 - If on skin: Wash with plenty of water.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 - Specific treatment (see Section 4 on this SDS).
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other Hazards
Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US)
No data available
TyloMed Soluble Powder (Tylosin Tartrate Soluble Powder)  
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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substance

<table>
<thead>
<tr>
<th>Name</th>
<th>Substance</th>
<th>Product Identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tylosin Tartrate, [R-(R*,R*)]-2,3-dihydroxybutanedioate (salt)</td>
<td>(CAS No) 1405-54-5</td>
<td>100</td>
<td>Comb. Dust Eye Irrit. 2A, H319 Skin Sens. 1, H317</td>
<td></td>
</tr>
</tbody>
</table>

### 3.2. Mixture

Not applicable

SECTION 4: FIRST AID MEASURES

### 4.1. Description of First Aid Measures

**First-aid Measures General**: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First-aid Measures After Inhalation**: Using proper respiratory protection, move the exposed person to fresh air at once. Encourage exposed person to cough, spit out, and blow nose to remove dust. Immediately call a poison center, physician, or emergency medical service.

**First-aid Measures After Skin Contact**: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

**First-aid Measures After Eye Contact**: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

**First-aid Measures After Ingestion**: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

**Symptoms/Injuries**: Causes serious eye irritation. Skin sensitization.

**Symptoms/Injuries After Inhalation**: Dust may be harmful or cause irritation.

**Symptoms/Injuries After Skin Contact**: May cause an allergic skin reaction.

**Symptoms/Injuries After Eye Contact**: Contact causes severe irritation with redness and swelling of the conjunctiva.

**Symptoms/Injuries After Ingestion**: Ingestion may cause adverse effects.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media**: Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media**: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard**: Combustible Dust.

**Explosion Hazard**: Dust explosion hazard in air.

**Reactivity**: Hazardous reactions will not occur under normal conditions.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire**: Exercise caution when fighting any chemical fire.

**Firefighting Instructions**: Use water spray or fog for cooling exposed containers.

**Protection During Firefighting**: Do not enter fire area without proper protective equipment, including respiratory protection.

**Other Information**: Risk of dust explosion.

SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures**: Avoid breathing dust. Do not get in eyes, on skin, or on clothing. Avoid generating dust. Remove ignition sources. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

#### 6.1.1. For Non-emergency Personnel

**Protective Equipment**: Use appropriate personal protection equipment (PPE).

**Emergency Procedures**: Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Responders

**Protective Equipment**: Equip cleanup crew with proper protection.

**Emergency Procedures**: Ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.
6.3. Methods and Material for Containment and Cleaning Up

For Containment: Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. Avoid generation of dust during clean-up of spills.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Contact competent authorities after a spill. Use explosion proof vacuum during cleanup, with appropriate filter. Do not mix with other materials. Vacuum clean-up is preferred. If sweeping is required use a dust suppressant. Use only non-sparking tools.

6.4. Reference to Other Sections

See Heading 8. Exposure controls and personal protection. See Section 13, Disposal Considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations.

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid breathing dust. Avoid contact with skin, eyes and clothing. Avoid creating or spreading dust. Keep away from heat, sparks, open flames, hot surfaces. — No smoking.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Avoid creating or spreading dust. Use explosion-proof electrical, ventilating, lighting equipment. Proper grounding procedures to avoid static electricity should be followed.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Products: Strong acids, strong bases, strong oxidizers.

Storage Temperature: 15 - 30 °C (59 - 86 °F)

7.3. Specific End Use(s)

Veterinary Macrolide antibiotic

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.


Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear protective gloves.

Eye Protection: Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Other Information: When using, do not eat, drink or smoke.
### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. Information on Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Light yellow powder</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>878 - 968 °F (470 - 520 °C)</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>932 - 968 °F (500 - 520 °C)</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative Vapor Density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Water: Freely Soluble</td>
</tr>
<tr>
<td>Partition Coefficient: N-Octanol/Water</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
</tbody>
</table>

#### 9.2. Other Information

No additional information available

### SECTION 10: STABILITY AND REACTIVITY

#### 10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

#### 10.2. Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

#### 10.3. Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to Avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials. Sparks, heat, open flame and other sources of ignition.

#### 10.5. Incompatible Materials

Strong acids, strong bases, strong oxidizers.

#### 10.6. Hazardous Decomposition Products

Thermal decomposition generates: Nitrogen oxides. Irritating or toxic vapors. Toxic fumes.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1. Information On Toxicological Effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Tylosin Tartrate, [R-(R*,R*)]-2,3-dihydroxybutanedioate (salt) (1405-54-5)</td>
<td>LD50 Oral Rat &gt; 6200 mg/kg</td>
</tr>
<tr>
<td>Skin Corrosion/Irritation</td>
<td>Not classified</td>
</tr>
<tr>
<td>Serious Eye Damage/Irritation</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>Respiratory or Skin Sensitization</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>Germ Cell Mutagenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Reproductive Toxicity</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific Target Organ Toxicity (Single Exposure)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Specific Target Organ Toxicity (Repeated Exposure)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Aspiration Hazard</td>
<td>Not classified</td>
</tr>
<tr>
<td>Symptoms/Injuries After Inhalation</td>
<td>Dust may be harmful or cause irritation.</td>
</tr>
<tr>
<td>Symptoms/Injuries After Skin Contact</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>Symptoms/Injuries After Eye Contact</td>
<td>Contact causes severe irritation with redness and swelling of the conjunctiva.</td>
</tr>
<tr>
<td>Symptoms/Injuries After Ingestion</td>
<td>Ingestion may cause adverse effects.</td>
</tr>
</tbody>
</table>
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SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Ecology - General : Not classified.

12.2. Persistence and Degradability
TyloMed Soluble Powder (Tylosin Tartrate Soluble Powder) (1405-54-5)
Persistence and Degradability Not established.

12.3. Bioaccumulative Potential
TyloMed Soluble Powder (Tylosin Tartrate Soluble Powder) (1405-54-5)
Bioaccumulative Potential Not established.

12.4. Mobility in Soil No additional information available

12.5. Other Adverse Effects
Other Information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.
Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

SECTION 14: TRANSPORT INFORMATION

14.1. In Accordance with DOT Not regulated for transport
14.2. In Accordance with IMDG Not regulated for transport
14.3. In Accordance with IATA Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations
TyloMed Soluble Powder (Tylosin Tartrate Soluble Powder) (1405-54-5)
SARA Section 311/312 Hazard Classes Immediate (acute) health hazard

15.2 US State Regulations Neither this product nor its chemical components appear on any US state lists.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 11/20/2015
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

| Comb. Dust | May form combustible dust concentrations in air |
| Eye Irrit. 2A | Serious eye damage/eye irritation Category 2A |
| Skin Sens. 1 | Skin sensitization Category 1 |
| H317 | May cause an allergic skin reaction |
| H319 | Causes serious eye irritation |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom)