1. Identification

Product identifier: Inteprity

Other means of identification:
- **Synonyms**: 10% Avilamycin Premix
- **Recommended use**: Veterinary Product
- **Recommended restrictions**: None known.

Manufacturer/Importer/Supplier/Distributor information

**Company Name**: Elanco Animal Health
- 2500 Innovation Way
- Greenfield, IN 46140
- US

**Phone**: 1-877-Elanco1 (1-877-352-6261)

**Emergency Telephone**: Elanco Product Technical Support / Human or Animal Exposure Reporting: 1-888-545-5973

**Email**: elanco_sds@elanco.com

**Transportation Emergency Telephone**: CHEMTREC: 1-800-424-9300 (Outside U.S. 1-703-527-3887)

2. Hazard(s) identification

**Physical hazards**: Not classified.

**Health hazards**:
- **Category 2B**: Serious eye damage/eye irritation
- **Category 1**: Sensitization, respiratory

**OSHA defined hazards**: Combustible dust

**Label elements**

<table>
<thead>
<tr>
<th>Signal word</th>
<th>Danger</th>
</tr>
</thead>
</table>

**Hazard statement**

- May form combustible dust concentrations in air.
- Causes eye irritation.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Precautionary statement**

**Prevention**

| P261 | Avoid breathing dust. |
| P264 | Wash hands thoroughly after handling. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P285 | In case of inadequate ventilation wear respiratory protection. |

**Response**

- **P304 + P340**: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- **P305 + P351 + P338**: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **P337 + P313**: If eye irritation persists: Get medical advice/attention.
- **P342 + P311**: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

**Storage**: Not available.

**Disposal**: Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)  
None known.

Supplemental information  
None.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avilamycin</td>
<td>[(2R,3S,4R,6S)-6-[(2'R,3'S,3aR,4R,4'R,6'S,7aR)-7'-acetyl-7'-hydroxy-6'-methyl-7-(2-methylpropanoyloxy)spiro[4,6,7,7a-tetrahydro-3aH-[1,3]dioxolo[4,5-d]pyran-2,4'-6,7a-dihydro-3aH-[1,3]dioxolo[4,5-c]pyran]-6-yl]oxy-4-hydroxy-5-methoxy-2-(methoxymethyl)oxan-3-yl]oxy-3-hydroxy-5-methoxy-6-methyloxan-4-yl]oxy-4'-hydroxy-2',4'-7a-timethylspiro[3a,4,6,7-tetrahydro-[1,3]dioxolo[5,4-c]pyran-2,6'-oxane]-3'-yl]oxy-4-hydroxy-2-methyloxan-3-yl][3,5-dichloro-4-hydroxy-2-methoxy-6-methylbenzoate</td>
<td>11051-71-1</td>
<td>10</td>
</tr>
</tbody>
</table>

Excipient: Grain Dust  
MINERAL OIL  
8012-95-1  
<= 3

Composition comments  
Excipients may include: Rice hulls. Soybean mill run. The anti-dusting oil reduces potential exposure under normal handling conditions of use.

4. First-aid measures

Inhalation  
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Get medical attention immediately.

Skin contact  
Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists. Take off contaminated clothing and wash before reuse.

Eye contact  
Do not rub eyes. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.

Ingestion  
Give several glasses of water. Never give liquid to an unconscious person. Call a physician or poison control center immediately.

Most important symptoms/effects, acute and delayed  
Irritating to eyes. Wheezing.

Indication of immediate medical attention and special treatment needed  
Provide general supportive measures and treat symptomatically.

General information  
If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media  
Water fog. Foam. Dry chemicals. Carbon dioxide (CO2). Apply extinguishing media carefully to avoid creating airborne dust.

Unsuitable extinguishing media  
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical  
Dust may form explosive mixture with air.

Special protective equipment and precautions for firefighters  
Wear self-contained breathing apparatus and protective clothing. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions  
In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods  
Use standard firefighting procedures and consider the hazards of other involved materials.
6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Avoid inhalation of dust. Wear suitable protective clothing, gloves and eye/face protection. See Section 8 of the SDS for Personal Protective Equipment.

**Methods and materials for containment and cleaning up**

Vacuum material with appropriate dust collection filter in place. Be aware of potential for dust explosion when using electrical equipment. If vacuum is not available, lightly mist/wet material and remove by mopping or wet wiping. Large spills due to traffic accidents, etc., should be reported immediately to CHEMTREC and Elanco Animal Health for assistance.

**Environmental precautions**

Avoid discharge into drains, water courses or onto the ground. Prevent spilled material from flowing onto adjacent land or into streams, ponds, or lakes.

7. Handling and storage

**Precautions for safe handling**

Minimize dust generation and accumulation. Wash hands thoroughly after handling. Avoid contact with eyes, skin, and clothing. Wear appropriate personal protective equipment.

**Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place.

8. Exposure controls/personal protection

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>U.S. - OSHA Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excipient: Grain Dust</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>(grain dust)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-dusting oil (CAS 8012-95-1)</td>
<td>PEL</td>
<td>5 mg/m³</td>
<td>Mist.</td>
</tr>
</tbody>
</table>

**ACGIH Components**

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excipient: Grain Dust</td>
<td>TWA</td>
<td>4 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-dusting oil (CAS 8012-95-1)</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>Inhalable fraction.</td>
</tr>
</tbody>
</table>

**US. NIOSH: Pocket Guide to Chemical Hazards Components**

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-dusting oil (CAS 8012-95-1)</td>
<td>STEL</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>5 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lilly (LEG) Material</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inteprity</td>
<td>TWA (8hrs)</td>
<td>4 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elanco OEL Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avilamycin (CAS 11051-71-1)</td>
<td>TWA (8hrs)</td>
<td>10 mg/m³</td>
</tr>
</tbody>
</table>

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Laboratory fume hood or local exhaust ventilation.**

**In a manufacturing setting, wear chemical-resistant gloves and body covering to minimize skin contact. If handled in a ventilated enclosure, as in a laboratory setting, respirator and goggles or face shield may not be required. Safety glasses are always required.**

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear safety glasses with side shields (or goggles).
Skin protection

Hand protection
Chemical resistant gloves.

Other
Chemical-resistant gloves and impermeable body covering to minimize skin contact.

Respiratory protection
In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the respirator. Select appropriate respirator for physical characteristics of material. Select respirator with appropriate protection factor.

Thermal hazards
Not available.

General hygiene considerations
Under normal use and handling conditions, wear goggles to protect eyes and wear impermeable gloves and protective equipment to avoid direct contact with skin. Wash thoroughly with soap and water after handling.

When mixing and handling, use protective clothing, impervious gloves, and dust respirator (recommended). Operators should wash thoroughly with soap and water after handling. If accidental eye contact occurs, immediately rinse with plenty of water.

9. Physical and chemical properties

Appearance

Physical state
Solid.

Form
Free flowing material which may contain light colored particles.

Color
Brown

Odor
Musty

Odor threshold
No data available.

pH
6 - 8

Melting point/freezing point
No data available.

Initial boiling point and boiling range
No data available.

Flash point
No data available.

Evaporation rate
No data available.

Flammability (solid, gas)
No test data available.

Flammability:

Upper/lower flammability or explosive limits

Flammability limit - lower (%)
No data available.

Flammability limit - upper (%)
No data available.

Explosive limit - lower (%)
No data available.

Explosive limit - upper (%)
No data available.

Vapor pressure
No data available.

Vapor density
No data available.

Relative density
No data available.

Solubility(ies)

Solubility (water)
Insoluble

Partition coefficient (n-octanol/water)
No data available.

Auto-ignition temperature
No data available.

Decomposition temperature
No data available.

Viscosity
No data available.

Other information

Density
No data available.

Explosive properties
Not explosive.

Flammability
No data available.

Molecular weight
No data available.

Oxidizing properties
The substance or mixture is not classified as oxidizing.
10. Stability and reactivity

Reactivity
The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability
Material is stable under normal conditions.

Possibility of hazardous reactions
Hazardous polymerization does not occur.

Conditions to avoid
Keep away from heat, sparks and open flame. Contact with incompatible materials. Minimize dust generation and accumulation.

Incompatible materials
Strong oxidizing agents.

Hazardous decomposition products
Fire or excessive heat may produce hazardous decomposition products.

11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avilamycin (CAS 11051-71-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD</td>
<td>Rabbit</td>
<td>&gt; 2000 mg/kg (14.9% formulation)</td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>&gt; 770 mg/m3, 4 hours (14.9% formulation)</td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>&gt; 5000 mg/kg (14.9% formulation)</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
(14.9% Avilamycin)
Rabbit: Slight irritation.
Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation
Rabbit: Irritating to eyes. (14.9 % Avilamycin) (cleared within 7 days)

Respiratory or skin sensitization

Respiratory sensitization
May cause allergy or asthma symptoms or breathing difficulties if inhaled. Allergic reactions in a manufacturing setting have been reported. Did not cause sensitization on laboratory animals. (Avilamycin)

Skin sensitization
Allergic reactions in a manufacturing setting have been reported. Did not cause sensitization on laboratory animals. (Avilamycin)
Based on available data, the classification criteria are not met.

Germ cell mutagenicity
Result in genetic toxicity assays (in vitro and in vivo): Negative (Avilamycin)

Carcinogenicity
No effects identified in animal studies. (Avilamycin)

IARC Monographs. Overall Evaluation of Carcinogenicity
Anti-dusting oil (CAS 8012-95-1) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)
Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens
Not listed.

Reproductive toxicity
No effects identified in animal studies. (Avilamycin)

Specific target organ toxicity - single exposure
No effects identified in animal studies. (Avilamycin)

Specific target organ toxicity - repeated exposure
No target organ toxicity identified through animal studies. (Avilamycin)

Aspiration hazard
No aspiration toxicity classification
12. Ecological information

Ecotoxicity

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avilamycin (CAS 11051-71-1)</td>
<td>Audrain (Silty clay loam)</td>
<td>66.5 ml/g Mean Kd (adsorption)</td>
</tr>
<tr>
<td></td>
<td>Mutcher sandy loam, pesticide free (sandy clay loam)</td>
<td>143 ml/g Mean Kd (adsorption)</td>
</tr>
<tr>
<td></td>
<td>Raymondville (Sandy clay loam)</td>
<td>2.05 ml/g Mean Kd (adsorption)</td>
</tr>
<tr>
<td></td>
<td>Tehama (Loam)</td>
<td>56 ml/g Mean Kd (adsorption)</td>
</tr>
<tr>
<td></td>
<td>Tift (Sand)</td>
<td>3.57 ml/g Mean Kd (adsorption)</td>
</tr>
</tbody>
</table>

**Acute**

<table>
<thead>
<tr>
<th>Species</th>
<th>LC50</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anas platyrhynchos (Mallard duck)</td>
<td>&gt; 730 ppm, 5 days (Dietary)</td>
<td></td>
</tr>
<tr>
<td>Colinus virginianus (Quail)</td>
<td>&gt; 660 ppm, 5 days (Dietary)</td>
<td></td>
</tr>
<tr>
<td>Earthworm (Eisenia fetida)</td>
<td>&gt; 100 mg/kg, 14 days</td>
<td></td>
</tr>
<tr>
<td>Oncorhynchus mykiss (Rainbow trout)</td>
<td>&gt; 47.8 mg/l, 96 hours</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Species</th>
<th>LD50</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colinus virginianus (Quail)</td>
<td>&gt; 372.5 mg/kg, 5 days</td>
<td></td>
</tr>
</tbody>
</table>

**Chronic**

<table>
<thead>
<tr>
<th>Species</th>
<th>EC50</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn (Zea mays)</td>
<td>&gt; 500 mg/kg, 21 days</td>
<td></td>
</tr>
<tr>
<td>Earthworm (Eisenia fetida)</td>
<td>&gt; 1300 mg/kg, 56 days (reproduction)</td>
<td></td>
</tr>
<tr>
<td>Oat (Avena sativa)</td>
<td>&gt; 500 mg/kg, 21 days</td>
<td></td>
</tr>
<tr>
<td>Radish (Raphanus sativus)</td>
<td>&gt; 500 mg/kg, 21 days</td>
<td></td>
</tr>
<tr>
<td>Soybean (Glycine max)</td>
<td>&gt; 500 mg/kg, 21 days</td>
<td></td>
</tr>
<tr>
<td>Sugar beet (Beta vulgaris)</td>
<td>&gt; 500 mg/kg, 21 days</td>
<td></td>
</tr>
<tr>
<td>Tomato (Solanum lycopersicon)</td>
<td>&gt; 500 mg/kg, 21 days</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Species</th>
<th>NOEC</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earthworm (Eisenia fetida)</td>
<td>1300 mg/kg, 56 days (reproduction)</td>
<td></td>
</tr>
</tbody>
</table>

**Aquatic**

**Acute**

<table>
<thead>
<tr>
<th>Species</th>
<th>EC50</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crustacea</td>
<td>Water flea (Daphnia magna)</td>
<td>&gt; 138 mg/l, 48 hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Species</th>
<th>NOEC</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water flea (Daphnia magna)</td>
<td>138 mg/l, 48 hours</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Species</th>
<th>LC50</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish</td>
<td>Bluegill (Lepomis macrochirus)</td>
<td>&gt; 35.4 mg/l, 96 hours</td>
</tr>
</tbody>
</table>

**Persistence and degradability**

No data is available on the degradability of this product.

**Bioaccumulative potential**

No data available.

**Partition coefficient n-octanol / water (log Kow)**

Avilamycin

<table>
<thead>
<tr>
<th>pH</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>0.681</td>
</tr>
<tr>
<td>7</td>
<td>2.55</td>
</tr>
<tr>
<td>4.5</td>
<td>3.97</td>
</tr>
</tbody>
</table>

**Bioconcentration factor (BCF)**

Avilamycin

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
</tr>
</tbody>
</table>

**Mobility in soil**

No data available.

**Other adverse effects**

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**Ecotoxicological Properties**

**Drinking Water**

**Components**

<table>
<thead>
<tr>
<th>Components</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avilamycin</td>
<td>6.6 mg/l, (Lilly Aquatic Exposure Guideline)</td>
</tr>
</tbody>
</table>

**Chronic Exposure of Aquatic Organisms**

**Components**

<table>
<thead>
<tr>
<th>Components</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avilamycin</td>
<td>2.4 mg/l, (Lilly Aquatic Exposure Guideline)</td>
</tr>
</tbody>
</table>
13. Disposal considerations

Disposal instructions
Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations.

14. Transport information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable.

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
One or more components are not listed on TSCA.
CERCLA/SARA Hazardous Substances - Not applicable.

Toxic Substances Control Act (TSCA)
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.
CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.
SARA 304 Emergency release notification
Not regulated.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
SARA 313 (TRI reporting)
Not regulated.

Other federal regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

US state regulations
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.
California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.
US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))
Anti-dusting oil (CAS 8012-95-1)

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
</tbody>
</table>
Country(s) or region: United States & Puerto Rico
Inventory name: Toxic Substances Control Act (TSCA) Inventory
On inventory (yes/no)*: No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date: 02-03-2016
Revision date: 03-27-2019
Version #: 02

Further information: Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

Disclaimer: As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

For additional information contact:

Elanco Animal Health
0011+1-877-352-6261
0011+1-800-428-4441