# SAFETY DATA SHEET

## 1. Identification

<table>
<thead>
<tr>
<th>Product identifier</th>
<th>Lincomycin Hydrochloride/Spectinomycin Sulfate Tetrahydrate Sterile Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other means of identification</td>
<td>Linco-Spectin® * Linco-Spectin * Linco-Spectin® injectable * Linco-Spectin® sterile solution * LINCO-SPECTIN® Antibiotic Injectable Solution * Linco-Spectin® VET</td>
</tr>
<tr>
<td>Synonyms</td>
<td>Veterinary product used as antibiotic agent</td>
</tr>
<tr>
<td>Recommended use</td>
<td>Not for human use</td>
</tr>
</tbody>
</table>

### Manufacturer/Importer/Supplier/Distributor information

<table>
<thead>
<tr>
<th>Company Name (US)</th>
<th>Zoetis Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Sylvan Way</td>
<td>Parsippany, New Jersey 07054 (USA)</td>
</tr>
<tr>
<td>Rocky Mountain Poison and Drug Center</td>
<td>1-866-531-8896</td>
</tr>
<tr>
<td>Product Support/Technical Services</td>
<td>1-800-366-5288</td>
</tr>
<tr>
<td>Emergency telephone numbers</td>
<td>CHEMTREC (24 hours): 1-800-424-9300</td>
</tr>
<tr>
<td>Company Name (EU)</td>
<td>Zoetis Belgium S.A.</td>
</tr>
<tr>
<td>Mercuriusstraat 20</td>
<td>1930 Zaventem Belgium</td>
</tr>
<tr>
<td>Emergency telephone number</td>
<td>International CHEMTREC (24 hours): +1-703-527-3887</td>
</tr>
<tr>
<td>Contact E-Mail</td>
<td><a href="mailto:VMIPSrecords@zoetis.com">VMIPSrecords@zoetis.com</a></td>
</tr>
</tbody>
</table>

## 2. Hazard(s) identification

### Physical hazards
Not classified.

### Health hazards
Sensitization, skin Category 1

### Environmental hazards
Not classified.

### OSHA defined hazards
Not classified.

### Label elements

<table>
<thead>
<tr>
<th>Signal word</th>
<th>Warning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard statement</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>Precautionary statement</td>
<td></td>
</tr>
<tr>
<td>Prevention</td>
<td>Avoid breathing mist or vapor. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves.</td>
</tr>
<tr>
<td>Response</td>
<td>If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.</td>
</tr>
<tr>
<td>Storage</td>
<td>Store away from incompatible materials.</td>
</tr>
<tr>
<td>Disposal</td>
<td>Dispose of contents/container in accordance with local/regional/national/international regulations.</td>
</tr>
<tr>
<td>Hazard(s) not otherwise classified (HNOC)</td>
<td>None known.</td>
</tr>
</tbody>
</table>
May cause eye irritation. May cause skin irritation. Individuals sensitive to this material or other materials in its chemical class may develop allergic reactions. The most common adverse effects reported with clinical use were diarrhea, nausea, rash, and vomiting. Effects on blood and blood-forming organs have also occurred.

### 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>Spectinomycin Sulfate Tetrahydrate</td>
<td></td>
<td>64058-48-6</td>
<td>10</td>
</tr>
<tr>
<td>Lincomycin Hydrochloride</td>
<td></td>
<td>859-18-7</td>
<td>5</td>
</tr>
<tr>
<td>Benzyl Alcohol</td>
<td></td>
<td>100-51-6</td>
<td>1</td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td>7732-18-5</td>
<td>*</td>
</tr>
</tbody>
</table>

#### Composition comments

* Non-hazardous Ingredients

In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has been withheld as a trade secret.

### 4. First-aid measures

#### Inhalation

Move to fresh air. Call a physician if symptoms develop or persist. For breathing difficulties, oxygen may be necessary.

#### Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation develops and persists. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash clothing separately before reuse.

#### Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash clothing separately before reuse.

#### Ingestion

Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell. If ingestion of a large amount does occur, call a poison control center immediately. Do not induce vomiting without advice from poison control center. Never give anything by mouth to a victim who is unconscious or is having convulsions.

#### Most important symptoms/effects, acute and delayed

Direct contact with eyes may cause temporary irritation. Mild skin irritation. May cause an allergic skin reaction. Dermatitis. Rash. The most common adverse effects reported with clinical use were diarrhea, nausea, rash, and vomiting.

#### Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

#### General information

For personal protection, see section 8 of the SDS. 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 chemical powder. Carbon dioxide (CO2).

#### Unsuitable extinguishing media

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

#### Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

#### Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

#### Fire fighting equipment/instructions

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.

#### General fire hazards

No unusual fire or explosion hazards noted.

### 6. Accidental release measures

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

Keep unnecessary personnel away. Ensure adequate ventilation. Wear appropriate protective equipment and clothing during clean-up. Ventilate closed spaces before entering them. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up

Ensure adequate ventilation. Wear appropriate protective equipment and clothing during clean-up. Avoid release to the environment.

Large Spills: Stop the flow of material, if this is without risk. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Wear personal protective equipment. Provide adequate ventilation. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid accidental injection. Avoid prolonged exposure. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash thoroughly after handling. Avoid release to the environment.

Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. @ 15-30°C (59-86°F). Keep away from heat, sparks and open flame. Do not store in direct sunlight. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

<table>
<thead>
<tr>
<th>Zoetis Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lincomycin Hydrochloride (CAS 859-18-7)</td>
<td>TWA</td>
<td>100 µg/m³</td>
</tr>
<tr>
<td>Spectinomycin Sulfate Tetrahydrate (CAS 64058-48-6)</td>
<td>TWA</td>
<td>2000 µg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. Workplace Environmental Exposure Level (WEEL) Guides Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl Alcohol (CAS 100-51-6)</td>
<td>TWA</td>
<td>44.2 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 ppm</td>
</tr>
</tbody>
</table>

Biological limit values

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

Control banding approach

Not available.

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. General ventilation normally adequate.

Individual protection measures, such as personal protective equipment

Eye/face protection

If contact is likely, safety glasses with side shields are recommended.

Skin protection

Hand protection

Wear protective gloves. Impervious gloves are recommended if skin contact with drug product is possible and for bulk processing operations.

Other

Wear suitable protective clothing. Use protective clothing (uniforms, lab coats, disposable coveralls, etc.) in both production and laboratory areas.

Respiratory protection

No personal respiratory protective equipment normally required. In case of insufficient ventilation, wear suitable respiratory equipment. If the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL.

Thermal hazards

Not applicable.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.
9. Physical and chemical properties

Appearance
- Physical state: Liquid.
- Form: Liquid.
- Color: Not available.
- Odor: Slight.
- Odor threshold: Not available.
- pH: Not available.
- Melting point/freezing point: Not available.
- Initial boiling point and boiling range: Not available.
- Flash point: Not available.
- Evaporation rate: Not available.
- Flammability (solid, gas): Not applicable.

Upper/lower flammability or explosive limits
- Flammability limit - lower (%): Not available.
- Flammability limit - upper (%): Not available.
- Explosive limit - lower (%): Not available.
- Explosive limit - upper (%): Not available.

Vapor pressure: Not available.
Vapor density: Not available.
Relative density: Not available.
Solubility(ies)
- Solubility (water): Not available.
- Partition coefficient (n-octanol/water): Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Not available.

Other information
- Explosive properties: Not explosive.
- Oxidizing properties: Not 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
- No dangerous reaction known under conditions of normal use.

Conditions to avoid
- Contact with incompatible materials.

Incompatible materials
- Strong oxidizing agents.

Hazardous decomposition products
- Thermal decomposition products may include oxides of carbon, nitrogen, and sulfur. May include hydrogen chloride.

11. Toxicological information

Information on likely routes of exposure
- Inhalation: Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
- Skin contact: May cause an allergic skin reaction. Species: Guinea Pig
  Severity: Moderate
Skin contact
Benzyl Alcohol Species: Rabbit
Severity: Minimal

Spectinomycin Sulfate Tetrahydrate Species: Rabbit
Severity: No effect

Eye contact
Direct contact with eyes may cause temporary irritation.
Spectinomycin Sulfate Tetrahydrate Species: Rabbit
Severity: Minimal
Benzyl Alcohol Species: Rabbit
Severity: Severe

Ingestion
Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics
Direct contact with eyes may cause temporary irritation. Exposed individuals may experience eye tearing, redness, and discomfort. Mild skin irritation. May cause an allergic skin reaction. Dermatitis. Rash. The most common adverse effects reported with clinical use were diarrhea, nausea, rash, and vomiting.

Information on toxicological effects

Acute toxicity
Ingestion may result in mild gastrointestinal irritation with nausea, vomiting, or diarrhea.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl Alcohol (CAS 100-51-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
<td>2000 mg/kg</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>&gt; 4.178 mg/L</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000 mg/l, 8 Hours</td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Mouse</td>
<td>1580 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>1230 mg/kg</td>
</tr>
<tr>
<td>Lincomycin Hydrochloride (CAS 859-18-7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intravenous</td>
<td>Mouse</td>
<td>214 mg/kg</td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 4000 mg/kg</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>342 mg/kg (Para-periosteal)</td>
</tr>
<tr>
<td><strong>Subcutaneous</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>9778 mg/kg</td>
</tr>
<tr>
<td><strong>Chronic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Dog</td>
<td>100 mg/kg/day, 6 months (Immune system)</td>
</tr>
<tr>
<td><strong>Subacute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>300 mg/kg/day, 30 days (No effects at maximum dose)</td>
</tr>
<tr>
<td><strong>Subchronic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Dog</td>
<td>400 mg/kg/day, 3 months (None identified)</td>
</tr>
<tr>
<td>Components</td>
<td>Species</td>
<td>Test Results</td>
</tr>
<tr>
<td>------------</td>
<td>---------</td>
<td>--------------</td>
</tr>
<tr>
<td>NOAEL</td>
<td>Rat</td>
<td>300 mg/kg/day, 3 months (None identified)</td>
</tr>
</tbody>
</table>

**Species: Spectinomycin Sulfate Tetrahydrate (CAS 64058-48-6)**

<table>
<thead>
<tr>
<th>Acute</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intravenous</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Mouse</td>
<td>1022 mg/kg</td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Mouse</td>
<td>3577 mg/kg [Sub-tenon injection (eye)]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subchronic</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOAEL</td>
<td>Rat</td>
<td>3000 mg/kg/day, 13 weeks (Target organ(s): None identified)</td>
</tr>
<tr>
<td>NOAEL</td>
<td>Dog</td>
<td>50 mg/kg/day, 90 days (Target organ(s): None identified)</td>
</tr>
<tr>
<td>Rat</td>
<td></td>
<td>400 mg/kg/day, 13 weeks (Target organ(s): None identified)</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**
Prolonged skin contact may cause temporary irritation.

**Corrosivity**
Spectinomycin Sulfate Tetrahydrate Severity: No effect

**Serious eye damage/eye irritation**
Direct contact with eyes may cause temporary irritation.

<table>
<thead>
<tr>
<th>Eye Contact</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Spectinomycin Sulfate Tetrahydrate</td>
<td>Species: Rabbit</td>
<td>Severity: Minimal</td>
</tr>
<tr>
<td>Benzyl Alcohol</td>
<td>Species: Rabbit</td>
<td>Severity: Severe</td>
</tr>
</tbody>
</table>

**Respiratory or skin sensitization**

<table>
<thead>
<tr>
<th>Respiratory sensitization</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not a respiratory sensitizer.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skin sensitization</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>May cause an allergic skin reaction.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Skin sensitization**
Spectinomycin Sulfate Tetrahydrate Severity: Sensitizer

**Germ cell mutagenicity**
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Mutagenicity**
Lincomycin Hydrochloride Bacterial Mutagenicity (Ames) Result: Negative Species: Salmonella

Spectinomycin Sulfate Tetrahydrate Bacterial Mutagenicity (Ames) Result: Negative Species: Salmonella

Lincomycin Hydrochloride Direct DNA Interaction Result: Negative Species: Human Lymphocytes

Spectinomycin Sulfate Tetrahydrate In Vitro Chromosome Aberration Result: Negative Species: Chinese Hamster Ovary (CHO) cells

In Vitro Unscheduled DNA Synthesis Result: Negative Species: Rat Hepatocyte
**Mutagenicity**

**Spectinomycin Sulfate Tetrahydrate**
- In Vivo Micronucleus
- Result: Negative
- Species: Mouse Bone Marrow

**Lincomycin Hydrochloride**
- In Vivo Micronucleus
- Result: Negative
- Species: Rat

- Mammalian Cell Mutagenicity
- Result: Negative
- Species: Mouse Lymphoma

**Carcinogenicity**

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**IARC Monographs. Overall Evaluation of Carcinogenicity**
- Not listed.

- Not regulated.

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

**Reproductive toxicity**

This product is not expected to cause reproductive or developmental effects. This compound can cross the placenta in pregnant women. May be secreted in human breast milk.

**Developmental effects**

**Lincomycin Hydrochloride**
- 100 mg/kg Prenatal & Postnatal Development, Not Teratogenic
- Result: NOEL
- Species: Rat
- Organ: Oral

**Spectinomycin Sulfate Tetrahydrate**
- 1000 mg/kg/day Embryo / Fetal Development, (Maternal Toxicity)
- Result: NOAEL
- Species: Rat
- Organ: Oral

- 2000 mg/kg/day Embryo / Fetal Development, (Fetotoxicity)
- Result: NOAEL
- Species: Rat
- Organ: Oral

**Lincomycin Hydrochloride**
- 30 mg/kg/day Peri-/Postnatal Development, No effects at maximum dose
- Result: NOAEL
- Species: Rat
- Organ: Subcutaneous

- 300 mg/kg/day Embryo / Fetal Development, Not Teratogenic
- Result: NOAEL
- Species: Rat
- Organ: Subcutaneous

- 75 mg/kg/day Fertility and Embryonic Development, No effects at maximum dose
- Result: NOAEL
- Species: Rat
- Organ: Subcutaneous

**Reproductivity**

**Lincomycin Hydrochloride**
- 100 mg/kg 2 Generation Reproductive Toxicity, Fetotoxicity
- Result: LOAEL
- Species: Rat
- Organ: Oral
Reproductivity
Spectinomycin Sulfate Tetrahydrate 2000 mg/kg/day Reproductive & Fertility, (Maternal Toxicity, Paternal toxicity, Fetotoxicity)
Result: NOAEL
Species: Rat
Organ: Oral

400 mg/kg/day Reproductive & Fertility, (Maternal toxicity, Paternal toxicity, Fetotoxicity)
Result: NOEL
Species: Rat
Organ: Oral

Specific target organ toxicity - single exposure
Not classified.

Specific target organ toxicity - repeated exposure
Due to partial or complete lack of data the classification is not possible. This product may affect blood and blood forming organs through prolonged or repeated exposure.

Aspiration hazard
Not an aspiration hazard.

Chronic effects
Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Avoid release to the environment.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl Alcohol (CAS 100-51-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC50</td>
<td>Daphnia magna (Water Flea)</td>
<td>230 mg/L, 48 Hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>66 mg/L, 21 Day(s) Reproduction</td>
</tr>
<tr>
<td></td>
<td>Pseudokirchneriella subcapitata (Green Alga)</td>
<td>500 mg/L, 72 Hours</td>
</tr>
<tr>
<td>LC50</td>
<td>Pimephales promelas (Fathead Minnow)</td>
<td>460 mg/L, 96 Hours</td>
</tr>
</tbody>
</table>

Aquatic
Fish
LC50
Bluegill (Lepomis macrochirus) 10 mg/l, 96 hours

Lincomycin Hydrochloride (CAS 859-18-7)
EC50
Anabaena flos-aquae (Cyanobacteria) 0.03 mg/L, 72 Hours
Daphnia magna (Water Flea) > 900 mg/L, 48 Hours
LC50
Lepomis macrochirus (Bluegill Sunfish) > 980 mg/L, 96 Hours
Salmo gairdneri (Trout) > 980 mg/L, 96 Hours

Spectinomycin Sulfate Tetrahydrate (CAS 64058-48-6)
EC50
Daphnia magna (Water Flea) > 1000 mg/L, 48 Hours
Selenastrum capricornutum (Green Alga) 1.18 mg/L, 72 Hours
LC50
Oncorhynchus mykiss (Rainbow Trout) > 118 mg/L, 96 Hours

Persistence and degradability
No data is available on the degradability of this product.

Bioaccumulative potential
Not expected to bioaccumulate.

Partition coefficient n-octanol / water (log Kow)
Lincomycin Hydrochloride 2.55, pH 6-8
Spectinomycin Sulfate Tetrahydrate -2.44, (Log D, measured, pH 7.4)

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.
13. Disposal considerations

Disposal instructions
Avoid release to the environment. Do not allow this material to drain into sewers/water supplies. Do not discharge into drains, water courses or onto the ground. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations
Dispose in accordance with all applicable regulations.

Hazardous waste code
None known.

Waste from residues / unused products
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied.

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 established.

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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 1910.1001-1050)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical
No

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.

Safe Drinking Water Act (SDWA)
Not regulated.
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.

### 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>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>No</td>
</tr>
<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>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>No</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>No</td>
</tr>
</tbody>
</table>

*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** 02-11-2015  
**Revision date** 04-18-2017  
**Version #** 03  
**Disclaimer** Zoetis Inc. believes that the information contained in this Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time. The information in the sheet was written based on the best knowledge and experience currently available.

**Revision information** This document has undergone significant changes and should be reviewed in its entirety.