SAFETY DATA SHEET

1. Identification

Product identifier
Cefovecin Sodium for Injection

Other means of identification

Synonyms
CONVENIA * Convenia® * Convenia® Antibiotic Injection

Recommended use
Veterinary product used as antibiotic agent

Recommended restrictions
Not for human use

Manufacturer/Importer/Supplier/Distributor information

Company Name (USA)
Zoetis Inc.
10 Sylvan Way
Parsippany, New Jersey 07054 (USA)

Rocky Mountain Poison and Drug Center
1-866-531-8896

Product Support/Technical Services
1-800-366-5288

Emergency telephone numbers
CHEMTREC (24 hours): 1-800-424-9300

International CHEMTREC (24 hours): +1-703-527-3887

Company Name (CA)
Zoetis Canada Inc.
16740 Trans-Canada Highway
Kirkland, Quebec, H9H 4M7

Emergency telephone number
International CHEMTREC (24 hours): +1-703-527-3887

Contact E-Mail
productsupport@zoetis.com

Product Support
1-800-461-0917

All Safety Data Sheets are available via our Zoetis Canada website at
https://www.zoetis.ca/sds/sds.aspx

2. Hazard(s) identification

Physical hazards
Not classified.

Health hazards
Sensitization, skin Category 1

Environmental hazards
Not classified.

Label elements

Signal word
Warning

Hazard statement
May cause an allergic skin reaction.

Precautionary statement

Prevention
Avoid breathing dust/fume/gas/mist/vapours/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves.

Response
IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Storage
Store away from incompatible materials.

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards
None known.
Supplemental information

Individuals who are sensitive to beta lactam antibiotics, both penicillins and cephalosporins, may experience contact or systemic hypersensitivity and anaphylaxis upon exposure to this drug.

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>Cefovecin sodium</td>
<td></td>
<td>141195-77-9</td>
<td>20</td>
</tr>
<tr>
<td>Methylparaben</td>
<td></td>
<td>99-76-3</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Propylparaben</td>
<td></td>
<td>94-13-3</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

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. If skin irritation occurs: Get medical advice/attention. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

Eye contact

Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Get medical advice/attention if you feel unwell. If ingestion of a large amount does occur, call a poison control centre 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. Exposed individuals may experience eye tearing, redness, and discomfort. May cause an allergic skin reaction. Dermatitis. Rash.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. Individuals who are sensitive to beta lactam antibiotics, both penicillins and cephalosporins, may experience contact or systemic hypersensitivity and anaphylaxis upon exposure to this drug.

General information

For personal protection, see section 8 of the SDS. IF exposed or concerned: Get medical advice/attention. 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

Use water spray to cool unopened containers.

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

Ensure adequate ventilation. Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Ventilate the contaminated area. Do not breathe dust. 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. Avoid the generation of dusts during clean-up. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Collect spill with an inert, non-combustible absorbent material and transfer to labeled container for disposal. Clean contaminated surface thoroughly. Prevent release to the environment.

Small Spills: Wipe up with a damp cloth and place in container for disposal. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Precautions for safe handling

Wear appropriate personal protective equipment. Avoid contact with eyes, skin, and clothing. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid accidental injection. Avoid prolonged exposure. Observe good industrial hygiene practices. Wash thoroughly after handling. Wash contaminated clothing before reuse. When using, do not eat, drink or smoke. Avoid release to the environment.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a cool, well-ventilated place. @ 2 - 8˚C (36 - 46˚F). Do not store in direct sunlight. Protect from light. Keep away from heat, sparks and open flame. Store away from incompatible materials (see Section 10 of the SDS). Keep out of the reach of children.

8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Zoetis Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cefovecin sodium (CAS 141195-77-9)</td>
<td>TWA</td>
<td>1000 µg/m3</td>
</tr>
</tbody>
</table>

Biological limit values

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

Exposure guidelines

OEL Additional Information: Sensitizer

Not available.

Appropriate engineering controls

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

Respiratory protection

No personal respiratory protective equipment normally required. In case of insufficient ventilation, wear suitable respiratory equipment. Respiratory protection should be provided in instances where exposure to dust, mists, aerosols or vapors are likely. 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

Freeze-dried Powder for reconstitution

Physical state

Solid.

Form

Solid.
Colour: Off-white to yellow
Odour: Not available.
Odour threshold: Not available.

\[ \text{pH: } 6.2 - 7.5 \text{ (reconstituted)} \]
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 available.

\[ \text{Upper/lower flammability or explosive limits} \]
\[ \text{Flammability limit - lower (\%)} \]
\[ \text{Flammability limit - upper (\%)} \]
\[ \text{Explosive limit - lower (\%)} \]
\[ \text{Explosive limit – upper (\%)} \]
Vapour pressure: Not available.
Vapour density: Not available.
Relative density: Not available.

Solvability(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.
Oxidising properties: Not oxidising.

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. Heat, flames and sparks. Sunlight.
Incompatible materials: Strong oxidising agents.
Hazardous decomposition products: No hazardous decomposition products are known.

11. Toxicological information
Information on likely routes of exposure
\[ \text{Inhalation} \]
Under normal conditions of intended use, this material is not expected to be an inhalation hazard. Individuals who are sensitive to beta lactam antibiotics, both penicillins and cephalosporins, may experience contact or systemic hypersensitivity and anaphylaxis upon exposure to this drug.

\[ \text{Skin contact} \]
Cefovecin sodium
Species: Rabbit
Severity: Non-irritating
May cause an allergic skin reaction.

\[ \text{Eye contact} \]
Cefovecin sodium
Species: Rabbit
Severity: Minimal
Direct contact with eyes may cause temporary irritation.
Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhoea. However, ingestion is not likely to be a primary route of occupational exposure.

Direct contact with eyes may cause temporary irritation. Exposed individuals may experience eye tearing, redness, and discomfort. May cause an allergic skin reaction. Dermatitis. Rash.

### Information on toxicological effects

#### Acute toxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Species</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cefovecin sodium (CAS 141195-77-9)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rat</td>
<td>LD50 &gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>LD50 &gt; 2000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Dog</td>
<td>MTD 1000 mg/kg</td>
</tr>
<tr>
<td>Subcutaneous</td>
<td>Dog</td>
<td>MTD &gt; 2000 mg/kg</td>
</tr>
<tr>
<td><strong>Subacute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subcutaneous</td>
<td>Cat</td>
<td>NOAEL 60 mg/kg/day, 5 weeks No effects at maximum dose</td>
</tr>
<tr>
<td></td>
<td>Dog</td>
<td>NOAEL 60 mg/kg/day, 5 weeks No effects at maximum dose</td>
</tr>
<tr>
<td><strong>Subchronic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subcutaneous</td>
<td>Cat</td>
<td>NOAEL 40 mg/kg/day, 16 weeks [Target organ(s): Gastrointestinal system]</td>
</tr>
<tr>
<td></td>
<td>Dog</td>
<td>NOAEL 40 mg/kg/day, 16 weeks No effects at maximum dose</td>
</tr>
<tr>
<td><strong>Propylparaben (CAS 94-13-3)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Mouse</td>
<td>LD50 6332 mg/kg</td>
</tr>
<tr>
<td>Other</td>
<td>Mouse</td>
<td>LD50 200 mg/kg Sub-tenon injection (eye)</td>
</tr>
<tr>
<td><strong>Chronic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>LOAEL 347.2 g/kg, 4 weeks Male reproductive system</td>
</tr>
<tr>
<td></td>
<td></td>
<td>27.1 g/kg, 3 weeks Endocrine system</td>
</tr>
</tbody>
</table>

#### Skin corrosion/irritation

Prolonged skin contact may cause temporary irritation.

**Corrosivity**

| Cefovecin sodium | Species: Rabbit | Severity: Non-irritating |

#### Serious eye damage/eye irritation

Direct contact with eyes may cause temporary irritation.

**Eye contact**

| Cefovecin sodium | Species: Rabbit | Severity: Minimal |

#### Respiratory or skin sensitisation

**Respiratory sensitisation**

Not a respiratory sensitizer.

**Skin sensitisation**

May cause an allergic skin reaction.
Skin sensitisation
Cefovecin sodium

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

Mutagenicity
Cefovecin sodium

- Bacterial Mutagenicity (Ames)
  - Result: negative
  - Species: Salmonella, E. coli
- In Vivo Micronucleus
  - Result: negative
  - Species: Rat Bone Marrow
- Mammalian Cell Mutagenicity
  - Result: Equivocal without activation
  - Species: Mouse Lymphoma

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

Reproductive toxicity
This product is not expected to cause reproductive or developmental effects.

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 Kidneys through prolonged or repeated exposure.

Aspiration hazard
Not an aspiration hazard.

Chronic effects
Prolonged inhalation may be harmful.

Further information
Caution - Pharmaceutical agent. Individuals who are sensitive to beta lactam antibiotics, both penicillins and cephalosporins, may experience contact or systemic hypersensitivity and anaphylaxis upon exposure to this drug. Pseudomembranous colitis (manifested by watery diarrhea, urge to defecate, abdominal cramps, low-grade fever, bloody stools, and abdominal pain) may also occur.

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>Cefovecin sodium (CAS 141195-77-9)</td>
<td>Daphnia magna (Water Flea)</td>
<td>&gt; 1000 mg/l, 48 Hours</td>
</tr>
<tr>
<td>EC50</td>
<td>Polytox</td>
<td>10.31 mg/l</td>
</tr>
<tr>
<td>IC50</td>
<td>Cyprinodon variegatus (Sheepshead Minnow)</td>
<td>770 mg/l, 48 Hours</td>
</tr>
<tr>
<td>LC50</td>
<td>Mysis bahia (Mysid Shrimp)</td>
<td>580 mg/l, 48 Hours</td>
</tr>
<tr>
<td>MIC</td>
<td>Polytox</td>
<td>1.85 mg/l</td>
</tr>
</tbody>
</table>

Persistence and degradability
No data is available on the degradability of this product. Cephalosporins are susceptible to degradation by a number of microorganisms found in waste water treatment plants and the general environment. Resulting degradation products are readily mineralised by environmental microorganisms.

Bioaccumulative potential
No data available.

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 discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. 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

**TDG**
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

**Canadian regulations**
This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

- **Controlled Drugs and Substances Act**
  Not regulated.
- **Export Control List (CEPA 1999, Schedule 3)**
  Not listed.
- **Greenhouse Gases**
  Not listed.
- **Precursor Control Regulations**
  Not regulated.

**International regulations**

- **Stockholm Convention**
  Not applicable.
- **Rotterdam Convention**
  Not applicable.
- **Kyoto protocol**
  Not applicable.
- **Montreal Protocol**
  Not applicable.
- **Basel Convention**
  Not applicable.

**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>Country(s) or region</td>
<td>Inventory name</td>
<td>On inventory (yes/no)</td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>-----------------------</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

#### Issue date
16-May-2017

#### Version No.
01

#### 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
Product and Company Identification: Synonyms
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties