SAFETY DATA SHEET

Zoetis New Zealand Limited

Section 1: Identification of the Substance and Supplier

Trade Name:	**EXCENEL® Flow**
ACVM Registration No.:	A011314
Classification:	Restricted Veterinary Medicine (RVM)
Recommended Use:	Injectable antibiotic for the treatment of respiratory infections in cattle and pigs, bovine footrot and acute metritis in cattle.
Company Details:	Zoetis New Zealand Limited
Address:	Level 4, 8 Mahuhu Crescent Auckland Central Auckland 1010 New Zealand
Telephone No.:	0800 963 847 (Business Hours)
Emergency Telephone No.:	National Poisons Centre: 0800 POISON (0800 764 766) Emergency Services: In an emergency dial 111
Date of Preparation:	01 July 2019

Section 2: Hazards Identification

Hazard Classification:	6.9B
Priority Identifier(s):	WARNING - KEEP OUT OF REACH OF CHILDREN
Secondary Identifier(s):	6.9B May cause target organ damage from repeated oral exposure at high doses.

Section 3: Composition / Information on Ingredients

Chemical Identity of Ingredients

Ingredient	CAS No.	Concentration
Ceftiofur (as ceftiofur hydrochloride)	103980-44-5	50 mg/mL
Other ingredients determined not to be hazardous.	-	-

This is a commercial product whose exact ratio of components may vary.
Trace quantities of impurities are also likely.

Section 4: First Aid Measures

Necessary First Aid Measures:

For advice contact the National Poisons Centre at 0800 POISON (0800 764 766) or a doctor immediately. If the patient is not breathing begin artificial respiration and seek medical advice immediately. Never give fluids or induce vomiting if a patient is unconscious or convulsing, regardless of injury.

Self-Injection: Immediate medical advice should be sought on the management of **all** instances of accidental self-injection, particularly those near a joint or associated with bruising. Allow the wound to bleed freely and avoid squeezing the injection site to avoid spread of the product. Clean the wound thoroughly with soap and water, and then keep it clean and dry.

Ingestion: DO NOT induce vomiting. If the patient is conscious wash mouth out with water. Do not give anything by mouth to an unconscious person. Seek medical advice immediately.

Eye Contact: Flush the eye(s) out with running water for at least 15 minutes. Removal of contact lenses should be done with caution within 5 minutes of exposure. If symptoms develop seek medical advice immediately.

Skin Contact: Remove any contaminated clothing and wash the affected area immediately with soap and water. If symptoms develop seek medical advice immediately.

Inhalation: Move the patient to fresh air. If symptoms develop seek medical advice immediately.

Poisoning Symptoms: 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.

Workplace Facilities: No specific facilities required. Standard emergency equipment must be available.

Hygiene Practices: Avoid self-injection, ingestion, contact with skin and eyes, and inhalation of dusts, mists or vapours. Do not eat, drink or smoke while using this product. Wash hands and exposed skin before eating, drinking or smoking and after work. Wash any protective clothing after use.

Notes for Medical Personnel: Provide general supportive measures and treat symptomatically. Keep patient under observation. Symptoms may be delayed.

Section 5: Fire-Fighting Measures

Type of hazard: This product is not flammable; however, irritating and possibly toxic gases may be generated by thermal decomposition or combustion. Fine particles (such as dust and mists) may fuel fires/explosions.

Fire Hazard Properties: Formation of toxic gases is possible during heating or fire.

Regulatory Requirements: Not applicable.

Extinguishing Media & Methods: Use carbon dioxide (CO_2), extinguishing powder, foam or water to extinguish fires involving this product.

Hazchem Code: None allocated.

Recommended Protective Clothing: During large-scale fire fighting operations wear approved positive pressure, self-contained breathing apparatus and full protective turn-out gear.

Section 6: Accidental Release Measures

Personal Precautions:	Personnel involved in clean-up should wear appropriate personal protective equipment to minimise exposure. This may include eye protection, chemically resistant gloves, boots and overalls.
Environmental Precautions:	Prevent material from entering surface water drains or waterways. If a significant quantity of material enters drains, advise emergency services.
Procedure for Spills:	1. Non-essential personnel should be evacuated from the affected area. 2. Stop leak and contain the source of spill if it is safe to do so. Reposition any leaking containers to minimise further leakage. 3. Absorb the spill with an absorbent material (e.g. sand). 4. Collect the spilled material into labelled containers for disposal, minimising dust generation. 5. Decontaminate the spill area thoroughly with detergent and water, preventing runoff from entering drains.
Procedure for Disposal:	Contaminated material must be disposed of at an approved landfill or other approved facility in accordance with local, regional and national requirements. Avoid contamination of any water supply with product or empty container.

Section 7: Handling and Storage

Handling

Precautions for Safe Handling:	No special technical protective measures required. No special handling advice required.
Regulatory Requirements:	Not required.
Handling Practices:	Avoid self-injection, ingestion, contact with skin and eyes, and inhalation of dusts, mists or vapours. Do not eat, drink or smoke while handling this product. Wash hands and exposed skin before eating, drinking or smoking and after work. Wash any protective clothing after use.
Approved Handlers:	Approved handlers are not required for this product.

Storage

Conditions for Safe Storage:	Store below 25°C (Room Temperature). Keep out of reach of children. Store in a well ventilated area in the original container, tightly closed, away from foodstuffs.
Store Site Requirements:	No additional requirements.
Packaging:	Store in the original container, away from foodstuffs.

Section 8: Exposure Control / Personal Protection

Always Read and Follow the Label Instructions and Warnings

Workplace Exposure Guidelines	
Workplace Exposure Standards:	A time weighted average (TWA) concentration for an 8-hour day and a 5-day week has not been established for the active ingredient in this product.
Application in the Workplace:	Zoetis OEL TWA 8-hr (ceftiofur hydrochloride): 200 µg/m^3, Sensitiser
Exposure Standards Outside the Workplace:	None set.
Engineering Controls:	Engineering controls should be used as the primary means to control exposures. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.
Personal Protection:	The following instructions are for those coming into frequent and / or lengthy contact with this product. For occasional handling employ precautions suitable for the conditions under which the product is being handled.
	Hands: Impervious gloves are recommended if skin contact is possible and for bulk processing operations.
	Eyes: It is always prudent to utilise protective eyewear.
	Skin: When prolonged or frequently repeated contact could occur, utilise chemically protective clothing. Selection of specific items such as a face shield, gloves, boots, or overalls will depend on the situation.
	Respiratory: Respiratory protection is not normally required; however, if necessary utilise an air-purifying respirator that complies with NZ standards.
General Hygiene:	Change work clothes regularly. Avoid self-injection, ingestion, contact with skin and eyes, and inhalation of dusts, mists or vapours. Do not eat, drink or smoke while handling this product. Wash hands and exposed skin before eating, drinking or smoking and after work. Wash any protective clothing after use.

Section 9: Physical and Chemical Properties

Appearance:	Opaque suspension
Odour:	No data available
Density:	No data available
Melting Point:	Not applicable
Boiling Point:	No data available
pH:	No data available
Solubility in Water:	No data available
Flashpoint:	Not applicable. This product is not flammable
Oxidising Properties:	Not applicable. This product is not an oxidiser
Corrosive Properties:	Not applicable. This product is not corrosive
Vapour Pressure:	Not applicable

Section 10: Stability and Reactivity

Stability of the Substance:	This product is stable and non-reactive under normal conditions of use.
Conditions to Avoid:	Store as recommended. No special conditions to avoid.
Material to Avoid:	As a precautionary measure, keep away from strong oxidisers.
Hazardous Decomposition Products:	Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.
Hazardous Polymerisation:	This product is unlikely to spontaneously polymerise.
Specific Data:	No specific data available.

Section 11: Toxicological Information

HSNO Classifications

6.9B May cause target organ damage from repeated oral exposure at high doses.

Acute Effects

Acute Toxicity: Ceftiofur hydrochloride (Species, Route, End Point, Dose):

- Rat (Oral) LD_{50} > 7760mg/kg
- Rat (Intraperitoneal) LD_{50} 927mg/kg
- Rat (Inhalation) LC_{50} > 8.3mg/L

A greater than symbol (>) indicates that the toxicity endpoint being tested was not achievable at the highest dose used in the test.

Sensitisation: Ceftiofur hydrochloride (Study Type, Species, Severity):

- Eye Irritation (Rabbit) Minimal
- Skin Irritation (Rabbit) Minimal

Chronic / Long Term Effects

Repeated Dose Toxicity: Ceftiofur hydrochloride (Duration, Species, Route, Dose, End Point, Target Organ):

- 90 Days (Dog) Oral 30mg/kg/day NOEL Blood forming organs

Teratogenicity: Ceftiofur hydrochloride (Study Type, Species, Route, Dose, End Point, Effects):

- 2 Generation Reproductive Toxicity (Rat) Oral 1000mg/kg/day NOEL Foetotoxicity
- Embryo/Foetal Development (Rat) Oral 3200mg/kg/day NOAEL Not Teratogenic

Mutagenicity: Ceftiofur hydrochloride (Study Type, Cell Type/Organism, Result):

- Bacterial Mutagenicity (Ames) *Salmonella, E. Coli* Negative
- Unscheduled DNA Synthesis (Rat) Negative
- Mammalian Call Mutagenicity Chinese Hamster Ovary (CHO) cells Negative

Carcinogenicity: None of the components of this formulation are listed as carcinogenic by IARC, NTP or OSHA.

Section 12: Ecotoxicity Information

HSNO Classifications

Not applicable. This product is not classified as ecotoxic.

The environmental characteristics of this material have not been fully evaluated.
Avoid contamination of any water supply with product or empty container.

Ecotoxicity Effects	
Toxicity to Birds:	Not applicable
Acute Toxicity to Fish:	Not applicable
Toxicity to Algae:	Not applicable
Toxicity to Aquatic Invertebrates:	Not applicable
Toxicity to Soil Dwelling Organisms:	Not applicable
Acute Toxicity to Bees:	Not applicable

Environmental Fate

No information available.

Section 13: Disposal Considerations

Product Disposal:	Preferably dispose of product by use in accordance with label directions. Otherwise dispose of product at an approved landfill, or other approved facility in accordance with local, regional and national regulations.
Container Disposal:	Dispose of empty containers by wrapping in paper and putting in garbage for disposal at an approved landfill, or other approved facility in accordance with local, regional and national regulations. Used needles and syringes should immediately be placed in a designated and appropriately labelled “sharps” container.

Section 14: Transport Information

Dangerous Goods Classification

UN No.:	Not applicable. This product is not a dangerous good.
Class:	Not applicable. This product is not a dangerous good.
Packing Group:	Not applicable. This product is not a dangerous good.
Proper Shipping Name:	Not applicable. This product is not a dangerous good.

Section 15: Regulatory Information

HSNO Approval No.:	HSR100757
HSNO Controls:	See www.epa.govt.nz for controls
ACVM Registration No.:	A011314
ACVM Controls:	See www.foodsafety.govt.nz for registration conditions

Section 16: Other Information

Note: This product is a veterinary medicine and must therefore be used in accordance with the container label directions. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the Government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

CONTACT POINT:	**Zoetis New Zealand Limited:**	0800 963 847 (Business Hours)
	National Poisons Centre:	0800 POISON (0800 764 766)
	Emergency Services:	Dial 111

This Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

PLEASE READ ALL LABELS CAREFULLY BEFORE USING PRODUCT.

If clarification of further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.