

## Section 1 - Identification of the Material and Supplier

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**Chemical nature:** Blend of ingredients (see below). Active ingredient is antibacterial  
**Trade Name:** **Zeniquin Tablets**  
**Product Use:** Antibacterial preparation used in veterinary applications  
**Creation Date:** **July, 2006**  
**This version issued:** **1 October 2016** and is valid for 5 years from this date

## Section 2 - Hazards Identification

**Appearance:** Beige-colored modified oval shaped tablets

### Classification of the Substance or Mixture

#### GHS - Classification

Reproductive Toxicity: Category 2

Specific target organ systemic toxicity (repeated exposure): Category 1

### Label Elements

**Signal Word:** Danger

#### Hazard Statements:

H361 - Suspected of damaging fertility or the unborn child  
H372 - Causes damage to organs through prolonged or repeated exposure

#### Precautionary Statements:

P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P264 - Wash hands thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P308 + P313 - IF exposed or concerned: Get medical attention/advice  
P405 - Store locked up  
P501 - Dispose of contents/container in accordance with all local and national regulations



### Other Hazards

#### Short Term:

May cause eye irritation (based on components) . There is a risk of photosensitization within a few hours after excessive exposure to quinolones. If excess exposure occurs, avoid direct sunlight and wash skin with soap and water.

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**Long Term:**

This compound may cause cartilage deterioration in knee joints and adverse reproductive effects (based on animal data).

**Known Clinical Effects:**

Individuals sensitive to this material or other materials in its chemical class may develop allergic reactions. Serious allergic reactions, including anaphylaxis, have been reported. Convulsions, increased intracranial pressure, and toxic psychosis have been reported in patients receiving quinolones.

**Note:**

This document has been prepared in accordance with standards for workplace safety, which require the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warnings included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

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### Section 3 - Composition/Information on Ingredients

Hazardous Ingredients	CAS No	Conc %	GHS Classification
Marbofloxacin	115550-35-1	7.3	Acute Tox. Cat. 5 (H303) Repro. Cat. 2 (H361) Aquatic Tox. Cat. 3 (H402)
Stearic acid	57-11-4	*	Not Listed
Microcrystalline cellulose	9004-34-6	*	Not Listed

**Additional Information:** \* Proprietary  
Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety.

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible.

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### Section 4 - First Aid Measures

**Description of First Aid Measures**

<b>Eye Contact:</b>	Immediately flush eyes with water for at least 15 minutes. If irritation occurs or persists, get medical attention.
<b>Skin Contact:</b>	Remove contaminated clothing and shoes. Wash skin with soap and water. This material may not be completely removed by conventional laundering. Consult professional laundry service. Do not home launder. If irritation occurs or persists, get medical attention.
<b>Ingestion:</b>	Get medical attention. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person.
<b>Inhalation:</b>	Not an expected route of exposure. In case of over exposure, move exposed person to fresh air. Refer to a physician if subject experiences difficulty breathing.

**Most Important Symptoms and Effects, Both Acute and Delayed**  
Symptoms and Effects of No data available

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**Exposure:**  
**Medical Conditions** None known  
**Aggravated by Exposure:**

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**Indication of the Immediate Medical Attention and Special Treatment Needed**

**Notes to Physician:** None

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**Section 5 - Fire Fighting Measures**

**Extinguishing Media:** Extinguish fires with CO<sub>2</sub>, extinguishing powder, foam, or water.

**Special Hazards Arising from the Substance or Mixture**

**Hazardous Combustion Products:** Formation of toxic gases is possible during heating or fire. Carbon monoxide, carbon dioxide, nitrogen oxides and fluorine-containing compounds

**Fire / Explosion Hazards:** Fine particles (such as dust and mists) may fuel fires/explosions.

**Advice for Fire-Fighters**

Wear approved positive pressure, self-contained breathing apparatus and full protective turn out gear. Dike and collect water used to fight fire.

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**Section 6 - Accidental Release Measures****Personal Precautions, Protective Equipment and Emergency Procedures**

Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

**Environmental Precautions**

Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

**Methods and Material for Containment and Cleaning Up**

**Measures for Cleaning / Collecting:** Contain the source of spill if it is safe to do so. Collect spilled material by a method that controls dust generation. A damp cloth or a filtered vacuum should be used to clean spills of dry solids. Clean spill area thoroughly.

**Additional Consideration for Large Spills:** Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel.

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**Section 7 - Handling and Storage****Precautions for Safe Handling**

Keep away from heat. If tablets or capsules are crushed and/or broken, avoid breathing dust and avoid contact with eyes, skin, and clothing. Avoid generating airborne dust. Keep away from heat, sparks, and flame.

**Conditions for Safe Storage, Including any Incompatibilities**

**Storage Conditions:** Keep in tightly closed containers or packages away from moisture and heat. Store out of direct sunlight in a well ventilated area at room temperature.

**Storage Temperature:** 15-30°C

**Incompatible Materials:** As a precautionary measure, keep away from strong oxidizers

**MATERIAL SAFETY DATA SHEET**

Specific end use(s): No data available

## Section 8 - Exposure Controls and Personal Protection

### Control Parameters

Refer to available public information for specific member state Occupational Exposure Limits.

#### Marbofloxacin

Zoetis OEL TWA 8-hr 0.2mg/m<sup>3</sup>

#### Microcrystalline cellulose

Australia TWA 10 mg/m<sup>3</sup>

### Exposure Controls

#### Engineering Controls:

Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or fumes.

#### Personal Protective Equipment:

Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).

#### Hands:

Wear impervious gloves if skin contact is possible.

#### Eyes:

Safety glasses or goggles

#### Skin:

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

#### Respiratory protection:

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.

## Section 9 - Physical and Chemical Properties:

<b>Physical State:</b>	Film-coated tablets	<b>Color: Stearic acid</b>	Beige
<b>Odor:</b>	No data available	<b>Odor Threshold:</b>	No data available
<b>Molecular Formula:</b>	Mixture	<b>Molecular Weight:</b>	Mixture

**Solvent Solubility:** No data available

**Water Solubility:** No data available

**pH:** No data available

**Melting/Freezing Point (°C):** No data available

**Boiling Point (°C):** No data available

**Partition Coefficient: (Method, pH, Endpoint, Value)**

No data available

**Decomposition Temperature (°C):** No data available

**Evaporation Rate (Gram/s):** No data available

**Vapor Pressure (kPa):** No data available

**Vapor Density (g/ml):** No data available

**Relative Density:** No data available

**Viscosity:** No data available

### Flammability:

**Autoignition Temperature (Solid) (°C):** No data available

**Flammability (Solids):** No data available

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<b>Flash Point (Liquid) (°C):</b>	No data available
<b>Upper Explosive Limits (Liquid) (% by Vol.):</b>	No data available
<b>Lower Explosive Limits (Liquid) (% by Vol.):</b>	No data available
<b>Polymerization:</b>	Will not occur

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## Section 10 - Stability and Reactivity

<b>Reactivity:</b>	No data available
<b>Chemical Stability:</b>	Stable
<b>Possibility of Hazardous Reactions</b>	
<b>Oxidizing Properties:</b>	No data available
<b>Conditions to Avoid:</b>	Direct sunlight, conditions that might generate heat and dispersion as a dust cloud Fine particles (such as dust and mists) may fuel fires/explosions.
<b>Incompatible Materials:</b>	As a precautionary measure, keep away from strong oxidizers
<b>Hazardous Decomposition Products:</b>	No data available

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## Section 11 - Toxicological Information

### Information on Toxicological Effects

<b>General Information:</b>	The information included in this section describes the potential hazards of the individual ingredients. Toxicological properties of the formulation have not been investigated.
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### Acute Toxicity: (Species, Route, End Point, Dose)

#### Stearic acid

Rat	Oral	LD50	> 4640 mg/kg
Rabbit	Dermal	LD50	> 5000mg/kg

#### Microcrystalline cellulose

Rat	Oral	LD50	> 5000 mg/kg
Rabbit	Dermal	LD50	> 2000 mg/kg

#### Hydroxypropyl methylcellulose

Rat	Oral	LD50	> 10,000 mg/kg
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#### Marbofloxacin

Rat	Oral	LD50	2720-3772 mg/kg
Mouse	Oral	LD50	1781-1822mg/kg

#### **Acute Toxicity Comments:**

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

### Irritation / Sensitization: (Study Type, Species, Severity)

#### Stearic acid

Skin Irritation	Rabbit	Moderate
Eye Irritation	Rabbit	Mild

#### Microcrystalline cellulose

Skin Irritation	Rabbit	Non-irritating
Eye Irritation	Rabbit	Non-irritating

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**Marbofloxacin**

Eye Irritation	Rabbit	Minimal
Eye Irritation	Rabbit	Non-irritating
Skin Irritation	Rabbit	Non-irritating

**Repeated Dose Toxicity: (Duration, Species, Route, Dose, End Point, Target Organ)****Stearic acid**

30 Week(s)	Rat	Oral300 ppm	LOAEL	Adipose tissue
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**Marbofloxacin**

4 Week(s)	Rat	Oral250 mg/kg/day	NOAEL	None identified
13 Week(s)	Rat	Oral 4 mg/kg/day	NOAEL	Male reproductive system, Connective tissue
14 Day(s)	Dog	Oral < 11 mg/kg/day	NOAEL	Connective tissue

**Reproduction & Developmental Toxicity: (Study Type, Species, Route, Dose, End Point, Effect(s))****Marbofloxacin**

2 Generation Reproductive Toxicity	Rat	Oral10 mg/kg/day	NOAEL	Fertility, Embryotoxicity, Fetotoxicity
Prenatal & Postnatal Development	Rat	Oral 700 mg/kg/day	NOAEL	Not Teratogenic, Maternal Toxicity
Prenatal & Postnatal Development	Rabbit	Oral 80 mg/kg/day	NOAEL	Not Teratogenic, Maternal Toxicity
Reproductive system	Liver	Connective tissue		

**Genetic Toxicity: (Study Type, Cell Type/Organism, Result)****Stearic acid**

<i>In Vitro</i> Bacterial Mutagenicity (Ames)	<i>Salmonella</i>	Negative
Unscheduled DNA Synthesis	<i>E. coli</i>	Negative

**Marbofloxacin**

Bacterial Mutagenicity (Ames)	<i>Salmonella</i>	Positive
<i>In Vitro</i> Chromosome Aberration	Human Lymphocytes	Negative
<i>In Vitro In Vivo</i> Unscheduled DNA Synthesis	Rat Hepatocyte	Negative
<i>In Vivo</i> Micronucleus	Mouse Bone Marrow	Negative

**Carcinogenicity: (Duration, Species, Route, Dose, End Point, Effect(s))****Stearic acid**

26 Week(s)	Rat	Subcutaneous 0.5 mg/kg/week	NOAEL	Not carcinogenic
52 Week(s)	Mouse	Subcutaneous 0.05 mg/kg/week	LOAEL	Tumors

**Marbofloxacin**

104 Week(s)	Rat	Oral 250 mg/kg/day	NOEL	Not carcinogenic
106 Week(s)	Mouse	Oral 600 mg/kg/day	NOAEL	Not carcinogenic

**Carcinogen Status:**

None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

**Section 12 - Ecological Information****MATERIAL SAFETY DATA SHEET**

**Environmental Overview:** Environmental properties have not been investigated. In the environment, the active ingredient in this formulation is expected to bind tightly to soil or sediment and degrade rapidly when exposed to sunlight.

**Toxicity:**

**Aquatic Toxicity: (Species, Method, End Point, Duration, Result)**

**Marbofloxacin**

*Daphnia magna* (Water Flea) LC50 48 Hours 62.3 (NOEC) mg/L

**Persistence and Degradability:** No data available

**Bio-accumulative Potential:** No data available

**Mobility in Soil:** No data available

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## Section 13 - Disposal Considerations

**Disposal:** Dispose of small quantities and empty containers by wrapping with paper and putting in garbage. For larger quantities use a commercial waste disposal service

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## Section 14 - Transport Information

The following refers to all modes of transportation unless specified below.

Not regulated for transport under IATA, ADG or IMDG regulations.

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## Section 15 - Regulatory Information

### Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

**Poison Schedule** Schedule 4

**Stearic acid**

**Australia (AICS):** Present

**Microcrystalline cellulose**

**Australia (AICS):** Present

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## Section 16 - Other Information

This MSDS contains only safety-related information. For other data see product literature.

**Acronyms:**

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail, 7th Edition
<b>AICS</b>	Australian Inventory of Chemical Substances
<b>SWA</b>	Safe Work Australia, formerly ASCC and NOHSC
<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>Hazchem Code</b>	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
<b>IARC</b>	International Agency for Research on Cancer

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Issued by: Zoetis Australia Pty Ltd

Phone: 1800 814 883

Poisons Information Centre: 13 11 26 from anywhere in Australia, (0800 764 766 in New Zealand)

NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
R-Phrase	Risk Phrase
SUSMP	Standard for the Uniform Scheduling of Medicines & Poisons
UN Number	United Nations Number

**This version issued: 1 October 2016** and is valid for 5 years from this date

**Supersedes:** Revision issued 30 August 2016

**Revision History:**

Date of Revision	Reason
17 Nov 2014	Update to GHS
30 August 2016	Revision for consistency with Zoetis organisation
01 Oct 2016	Minor corrections and updates. Inclusion of additional ingredients in Section 3.

Contact Points:

<b>Zoetis</b>	<b>1800 814 883</b>
<b>Police and Fire Brigade:</b>	<b>Dial 000</b>

**If ineffective:**

**Dial Poisons Information Centre**  
**(13 11 26 from anywhere in Australia)**

**THIS SDS SUMMARISES OUR CURRENT AND BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION ABOUT THE PRODUCT DETAILED IN THIS SDS, AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE FOR THE RECOMMENDED USE. EACH USER OF THE PRODUCT MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THEIR OWN WORKPLACE. IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT ZOETIS.**

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (December 2011)

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**End of Safety Data Sheet**

**MATERIAL SAFETY DATA SHEET**