Section 1 - Identification of the Material and Supplier

Australia Pty Ltd
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Level 6, 5 Rider Blvd
Rhodes NSW 2138 AUSTRALIA
Tel: 1800 814 883
Fax: (02) 8876 0444
Email: productsupport.au@zoetis.com

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:	**22 September 2021** 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.

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.

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.

Section 4 - First Aid Measures

Description of First Aid Measures

Eye Contact: Immediately flush eyes with water for at least 15 minutes. If irritation occurs or persists, get medical attention.

Skin Contact: 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.

Ingestion: Get medical attention. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person.

Inhalation: 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

Exposure:
Medical Conditions Aggravated by Exposure: None known

Indication of the Immediate Medical Attention and Special Treatment Needed
Notes to Physician: None

Section 5 - Fire Fighting Measures

Extinguishing Media: Extinguish fires with CO_2, 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.

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.

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

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/m³

Microcrystalline cellulose

Australia TWA 10 mg/m³

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:

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

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

Section 10 - Stability and Reactivity

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

Section 11 - Toxicological Information

Information on Toxicological Effects
General Information: The information included in this section describes the potential hazards of the individual ingredients. Toxicological properties of the formulation have not been investigated.

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

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

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

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

In Vitro Bacterial Mutagenicity (Ames) *Salmonella* Negative
Unscheduled DNA Synthesis *E. coli* Negative

Marbofloxacin

Bacterial Mutagenicity (Ames) *Salmonella* Positive
In Vitro Chromosome Aberration Human Lymphocytes Negative
In Vitro In Vivo Unscheduled DNA Synthesis Rat Hepatocyte Negative
In Vivo 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

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**

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

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.

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

Section 16 - Other Information

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

Acronyms:

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

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: 22 September 2021 and is valid for 5 years from this date
Supersedes: Revision issued 1 October 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.
22 Sep 2021	Periodical revision

Contact Points:

Zoetis	**1800 814 883**
Police and Fire Brigade:	**Dial 000**

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)

End of Safety Data Sheet