

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND SUPPLIER

<b>Product name:</b>	<b>Mamyzin</b>
<b>Product code:</b>	A000593
<b>Recommended use:</b>	Ester of benzylpenicillin for subcutaneous or intramuscular injection for the treatment of mastitis, respiratory infections, footrot and uterine infections.
<b>Company details:</b>	Boehringer Ingelheim Animal Health New Zealand Limited
<b>Address:</b>	Level 3, Boehringer Ingelheim Building 2 Osterley Way Manukau Auckland 2104 New Zealand
<b>Telephone number:</b>	Phone: +64 9 263 1400
<b>Emergency telephone number:</b>	Boehringer Ingelheim Freephone: 0800 800 822 National Poisons Centre : 0800 764 766 (0800 POISON) Fire Service, Ambulance : Dial 111
<b>Date of issue:</b>	18 September 2018
<b>Date of review:</b>	5 February 2020

## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<b>Chemical characterization:</b>	Powder with diluent for injection		
	Each vial of powder contains 5 g or 10 g of penethamate hydriodide.		
	Each vial of diluent contains water for injection with methylparahydroxybenzoate as a preservative.		
<b>Product components:</b>			
<b>Powder</b>			
<b><u>Name</u></b>	<b><u>CAS</u></b>	<b><u>Proportion</u></b>	
Diethylaminoethyl penicillin G, hydriodide	808-71-9	100%	
<b>Diluent</b>			
<b><u>Name</u></b>	<b><u>CAS</u></b>	<b><u>Proportion</u></b>	
Water for injection	7732-18-5	99.85%	
Methylparahydroxybenzoate	19438-10-9	0.15%	

## SECTION 3: HAZARDS IDENTIFICATION

<b>Hazard classifications:</b>	6.1E, 6.5B, 9.1A
<b>Priority and secondary identifiers:</b>	WARNING
<b>Risk and safety phrases:</b>	<p><b>Hazard Statement(s)</b>          H303 May be harmful if swallowed          H317 May cause an allergic skin reaction          H400 Very toxic to aquatic life</p> <p><b>Precautionary statement – Prevention</b>          P102 Keep out of reach of children          P103 Read label before use          P261 Avoid breathing dust          P272 Contaminated work clothing should not be allowed out of the workplace          P273 Avoid release to the environment          P280 Wear protective gloves</p> <p><b>Precautionary statement – Response</b>          P101 If medical advice is needed, have product container or label at hand</p>

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P312 Call a POISON CENTRE or doctor/physician if you feel unwell  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water  
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention  
P321 N/A  
P363 Wash contaminated clothing before reuse  
P391 Collect spillage  
**Precautionary statement – Disposal**  
P501 Seal all wastes in labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations.

## SECTION 4: FIRST AID MEASURES

### Necessary first aid measures:

For advice, contact the National Poisons Centre on 0800 POISON (0800 764 766), or a doctor immediately.  
Animals developing an anaphylactic (life threatening) reactions, such as difficulty breathing or unconsciousness, must receive immediate medical attention.  
In case of self-injection, seek immediate medical attention.  
Ingestion: Do not induce vomiting. Wash out mouth thoroughly with water.  
Eyes: If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. Seek medical attention.  
Skin: Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. Seek medical attention.  
Inhalation: If inhaled, remove affected person from contaminated area to fresh air. Apply artificial respiration if not breathing.

### Workplace facilities:

No special facilities required.

### Required instructions:

Observe good work practices and avoid skin contact. Wash hands and exposed skin before meals and after use. Do not eat or drink while using.

### Notes for medical personnel:

Treat symptomatically. For animal injection only. Not for human use. Antidote: Epinephrine is indicated for anaphylactoid reactions.

## SECTION 5: FIRE FIGHTING MEASURES

### Type of hazard:

Non-combustible material

### Fire hazard properties:

Under fire conditions, this product may emit toxic and/or irritating fumes and gases including carbon monoxide and carbon dioxide.

### Extinguishing media and methods:

Water spray, carbon dioxide, chemical powder or foam.

### Hazchem code:

2Z

### Recommended protective clothing:

Fire fighters should wear full protective clothing and self-contained breathing apparatus operated in positive pressure mode. Fight fire from safe location.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Emergency procedures:

Increase ventilation. Evacuate all unprotected personnel. Wear sufficient respiratory protection and full protective clothing to prevent exposure. Sweep up material avoiding dust generation or dampen spilled material with water to avoid airborne dust, then transfer material to a suitable container. Wash surfaces well with soap and water. Seal all wastes in labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs, inform the local water and waste management authorities in accordance with local regulations.

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## SECTION 7: HANDLING AND STORAGE

**Precautions for safe handling:**

Use only in a well-ventilated area. Avoid contact with clothing, skin or eyes and accidental injection. Use entire contents when first opened. Sterilise all injection apparatus before use. Avoid the use of strong disinfectants. If possible, avoid injection during wet weather or dusty conditions. Maintain high standards of personal hygiene i.e. washing hands prior to eating, drinking, smoking or using toilet facilities. Prevent the buildup of dust in the work atmosphere.

**Approved handlers:**

Not required

**Conditions for safe storage:**

Store in a dry, well-ventilated area, out of direct sunlight. Store in suitable, labelled containers. Keep containers closed when not in use. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.

**Store site requirements:**

Store below 30 °C

## SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

**Workplace exposure standards:**

No exposure standards have been established for the mixture. However, over- exposure to some chemicals may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions and should be kept to the least possible levels.

**Application in the workplace:**

Prevent exposure by using engineering controls, personal protective equipment and work practices that prevent skin contact.

**Engineering controls:**

This substance is hazardous and should be used with a local exhaust ventilation system, drawing solid/dust away from workers' breathing zone. If the engineering controls are not sufficient to maintain concentrations of particulates below the exposure standards. Suitable respiratory protection must be worn. Additional ventilation requirements are not expected under normal conditions of use. However if there is risk of airborne exposure, provide sufficient ventilation to keep airborne levels as low as possible.

**Personal protection:**

**Respiratory Protection**

None required, when used as intended. However, if engineering controls are not effective in controlling airborne exposure then an approved P2 or P3 respirator should be used.<sup>1</sup>

**Eye Protection**

Safety glasses with side shields or chemical goggles are recommended. Final choice of appropriate eye/ face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations.<sup>2</sup>

**Hand Protection**

None required, when used as intended. However, where exposure to the contents is likely wear gloves of impervious material such as PVC or neoprene gloves. Final choice of appropriate gloves will vary according to individual circumstances, i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.<sup>3</sup>

**Body Protection**

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

**References:**

1. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes

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for individual circumstances

2. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.
3. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Specify product data:

Formulation type: Powder with diluent for injection  
Appearance: Crystal white to slightly white powder  
Specific gravity: Not available  
Boiling Point: Not available  
Melting Point: 178-179°C  
Vapour Pressure: Not available  
Solubility in Water: Slightly soluble (0.96% at 20 °C)  
Flammability: Non-combustible material

## SECTION 10: STABILITY AND REACTIVITY

### Stability of the substance:

Stable under normal conditions of use and storage.

### Conditions to avoid:

Dust accumulation, heat and other sources of ignition.

### Material to avoid:

In aqueous solutions, ester is hydrolyzed to penicillin and free diethylaminoethanol.

### Hazardous decomposition products:

Under fire conditions this product may emit toxic and/or irritating fumes and gases including carbon monoxide and carbon dioxide.

### Specific data:

N/A

## SECTION 11: TOXICOLOGICAL INFORMATION

### Data and interpretation:

#### Toxicology Information

Toxicity data for material given below.

#### Acute toxicity – Oral

LD50 (mouse): 1750 mg/kg

#### Ingestion

Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

#### Inhalation

May cause respiratory irritation. Inhalation of product dust/vapours can cause irritation of the nose, throat and respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### Skin

Causes skin irritation. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis. May cause an allergic skin reaction.

#### Eye

Causes serious eye irritation. On eye contact this product will cause tearing, stinging, blurred vision and redness.

#### Respiratory sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### Skin Sensitisation

May cause an allergic skin reaction.

#### Germ cell mutagenicity

Not considered to be a mutagenic hazard.

#### Carcinogenicity

Not considered to be a carcinogenic hazard.

#### Reproductive Toxicity

Not considered to be toxic to reproduction.

#### STOT-single exposure

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May cause respiratory irritation.  
**STOT-repeated exposure**  
Not expected to cause toxicity to a specific target organ.  
**Aspiration Hazard**  
Not expected to be an aspiration hazard.

## SECTION 12: ENVIRONMENTAL INFORMATION

**Potential environmental interactions:**

No ecological data available for this material.

**Data organisation :**

**Persistence and degradability**

As the substance is an antibiotic, it is likely that it may inhibit the growth of certain microorganisms in the biological treatment plants for sewage.

**Mobility**

Not available

**Bioaccumulative Potential**

Not available

**Other Adverse Effects**

Not available

**Environmental risk and safety phrases:**

Do not discharge this material into waterways, drains and sewers.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Disposal information :**

The disposal of the spilled or waste material and container must be done in accordance with applicable local and national regulations. Used needles should be placed in a designated sharps container.

## SECTION 14: TRANSPORT INFORMATION

**Relevant information:**

This material is classified as a Class 9 – Miscellaneous Substances

Must not be loaded in the same freight container or on the same vehicle with:

- Class 1: Explosives

Class 9 dangerous goods that contain organic matter must not be loaded in the same bulk container or tankwagon with dangerous goods of Division 5.1 unless the Class 9 and Division 5.1 dangerous goods are in separate compartments of a bulk container or tankwagon.

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices. Segregation devices may be used to segregate Dangerous goods of Class 9 when the nature of those dangerous goods requires them to be segregated from dangerous goods of Class 3, 4, 5, 6 or 8 or from food items.

Marine Transport (IMO/IMDG):

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Class/Division: 9

UN No: 3077

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PENETHEMATE HYDRIODIDE) (MARINE POLLUTANT)

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## Air Transport (ICAO/IATA):

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Class/Division: 9

UN No: 3077

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PENETHEMATE HYDRIODIDE)

## U.N. Number

3077

## UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PENETHEMATE HYDRIODIDE)

## Transport hazard class(es)

9

## Packing Group

III

## Hazchem Code

2Z

## Special Precautions for User

Not available

## IERG Number

47

## IMDG Marine pollutant

Yes

## Transport in Bulk

Not available

## Other requirements:

This material is classified as a Class 9 – Miscellaneous Substances  
Must not be loaded in the same freight container or on the same vehicle with:

- Class 1: Explosives

Class 9 dangerous goods that contain organic matter must not be loaded in the same bulk container or tankwagon with dangerous goods of Division 5.1 unless the Class 9 and Division 5.1 dangerous goods are in separate compartments of a bulk container or tankwagon.

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices. Segregation devices may be used to segregate Dangerous goods of Class 9 when the nature of those dangerous goods requires them to be segregated from dangerous goods of Class 3, 4, 5, 6 or 8 or from food items.

## Marine Transport (IMO/IMDG):

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by

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sea.

Class/Division: 9

UN No: 3077

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS  
SUBSTANCE, SOLID, N.O.S. (SODIUM SELENATE) (MARINE  
POLLUTANT)

Packing Group: III EMS : F-A, S-F

Special Provisions: 274 335 966 967 969

Air Transport (ICAO/IATA):

Classified as Dangerous Goods by the criteria of the International  
Air Transport Association (IATA) Dangerous Goods Regulations  
for transport by air.

Class/Division: 9

UN No: 3077

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS  
SUBSTANCE, SOLID, N.O.S. (SODIUM SELENATE)

Packaging Instructions (passenger & cargo): 956

Packaging Instructions (cargo only): 956 Hazard Label:  
Miscellaneous

Special Provisions: A97, A158, A179, A197

## U.N. Number

3077

## UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(SODIUM SELENATE)

## Transport hazard class(es)

9

## Packing Group

III

## Hazchem Code

2Z

## Special Precautions for User

Not available

## IERG Number

47

## IMDG Marine pollutant

Yes

## Transport in Bulk

Not available

## SECTION 15: REGULATORY INFORMATION

### Regulatory status:

Registered pursuant to the ACVM Act 1997, No. A000593  
See [www.foodsafety.govt.nz](http://www.foodsafety.govt.nz) for registration conditions

Restricted Veterinary Medicine  
For use only under the authority or prescription of a veterinarian.

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Approved pursuant to the HSNO Act, Approval Code HSR002165  
See [www.epa.govt.nz](http://www.epa.govt.nz) for approval conditions

**HSNO and ACVM controls:** Refer to Section 3

## SECTION 16: OTHER INFORMATION

**Additional information:** For product information visit the Boehringer Ingelheim website  
[www.boehringer-ingelheim.co.nz](http://www.boehringer-ingelheim.co.nz)  
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