Section 1 - Identification of the Substance/Mixture and Supplier

Zoetis Australia Pty Ltd
ABN 94 156 476 425
Level 6, 5 Rider Blvd
Rhodes NSW 2138 AUSTRALIA
Tel: 1800 814 883
Fax: (02) 8876 0444
Email: productsupport.au@zoetis.com

Product Identifier: DECTOMAX® Injectable endectocide
APVMA Approval No: 46128
Other names: None
Chemical family: Doramectin in an oily base
Recommended Use: Veterinary product used as antiparasitic; endectocide
Restrictions on use For veterinary use only
Emergency Phone: 1800 814 883 (all hours)

Section 2 - Hazards Identification

Appearance: Colorless to pale yellow solution

Classification of the Substance or Mixture
GHS - Classification
Reproductive Toxicity: Category 2
Reproductive Toxicity: Effects on or via lactation
Acute aquatic toxicity: Category 1
Chronic aquatic toxicity: Category 1

Label Elements
Signal Word: Warning
Hazard Statements:
H361 - Suspected of damaging fertility or the unborn child
H362 - May cause harm to breast-fed children
H410 - Very toxic to aquatic life with long lasting effects

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
P263 - Avoid contact during pregnancy/while nursing
P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P273 - Avoid release to the environment
P308 + P313 - IF exposed or concerned: Get medical attention/advice
P391 - Collect spillage
P405 - Store locked up
P501 - Dispose of contents/container in accordance with all local and national regulations

Other Hazards
Short Term: May be harmful if swallowed. (based on components). May cause nervous system effects. May cause eye and skin irritation.

Long Term: Repeat-dose studies in animals have shown a potential to cause adverse effects on the developing fetus. May cause effects on nervous system.

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

<table>
<thead>
<tr>
<th>Hazardous Ingredients</th>
<th>CAS No</th>
<th>Conc,%</th>
<th>GHS Classification</th>
</tr>
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<tbody>
<tr>
<td>Doramectin</td>
<td>117704-25-3</td>
<td>1</td>
<td>Acute Tox. 4 (H302)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Repr. 2 (H361)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Lact (H362)</td>
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<td></td>
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<td></td>
<td>Aq. Acute 1 (H400)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Aq. Chronic 1 (H410)</td>
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<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No</th>
<th>Conc,%</th>
<th>GHS Classification</th>
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<tbody>
<tr>
<td>Sesame oil</td>
<td>8008-74-0</td>
<td>*</td>
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<tr>
<td>Ethyl oleate</td>
<td>111-62-6</td>
<td>*</td>
<td>Not Listed</td>
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</table>

Additional Information: Proprietary
Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety. In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has been withheld as a trade secret.

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: Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention immediately.

Skin Contact: Remove contaminated clothing. Flush area with large amounts of water. Use soap. Seek medical attention.

Ingestion: Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention immediately.

Inhalation: Remove to fresh air and keep patient at rest. Seek medical attention immediately.

Most Important Symptoms and Effects, both Acute and Delayed

Symptoms and Effects of Exposure: For information on potential signs and symptoms of exposure, see section 2 – Hazards Identification and/or Section 11 - Toxicological Information.

Medical Conditions Aggravated by Exposure: None known

Indication of the Immediate Medical Attention and Special Treatment Needed

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Poisons Information Centre: 13 11 26 from anywhere in Australia
Section 5 - Fire Fighting Measures

Extinguishing Media: Extinguish fires with CO₂, 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.
- Fire / Explosion Hazards: Fine particles (such as dust and mists) may fuel fires/explosions.

Advice for Fire-Fighters
During all firefighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

Section 6 - Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures
Ensure adequate ventilation. Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure. Avoid contact with skin, eyes and clothing.

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 the spill if it is safe to do so. Absorbent material and transfer into a labeled container for disposal. 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
When handling, use appropriate personal protective equipment (see Section 8). Use only in a well-ventilated area. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Avoid accidental injection. Wash thoroughly after handling. Refer to Section 12 - Ecological Information, for information on potential effects on the environment. Releases to the environment should be avoided. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.

Conditions for Safe Storage, Including any Incompatibilities
- Storage Conditions: Store as directed by product packaging.
- Storage Temperature: < 30 °C
- Specific end use(s): Veterinary Antiparasitic (veterinary); endectocide

Section 8 - Exposure Controls and Personal Protection
Control Parameters
Refer to available public information for specific member state Occupational Exposure Limits.

**Doramectin**

**Zoetis OEL TWA 8-hr**

200μg/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. Keep airborne contamination levels below the exposure limits listed above in this section.

**Personal Protective Equipment:** Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).

**Hands:** Impervious gloves are recommended if skin contact with drug product is possible and for bulk processing operations.

**Eyes:** Wear safety glasses or goggles if eye contact is possible.

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

**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.

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**Section 9 - Physical and Chemical Properties:**

<table>
<thead>
<tr>
<th>Physical State:</th>
<th>Liquid</th>
<th>Color:</th>
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<tr>
<td>Molecular Formula:</td>
<td>Mixture</td>
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<td>Mixture</td>
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<td>Melting/Freezing Point (°C):</td>
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<td>Boiling Point (°C):</td>
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<tr>
<td>Partition Coefficient: (Method, pH, Endpoint, Value)</td>
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<td>Decomposition Temperature (°C):</td>
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<td>Evaporation Rate (Gram/s):</td>
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<tr>
<td>Viscosity:</td>
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</tbody>
</table>

**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 under normal conditions of use.
Possibility of Hazardous Reactions
   Oxidizing Properties: No data available
   Conditions to Avoid: Fine particles (such as dust and mists) may fuel fires/explosions.
   Incompatible Materials: As a precautionary measure, keep away from strong oxidizers
   Hazardous Decomposition: Thermal decomposition products may include carbon monoxide, carbon dioxide and other toxic vapors.

Section 11 - Toxicological Information

Information on Toxicological Effects
General Information: Toxicological properties of the formulation have not been investigated. The information in this section describes the potential hazards of the individual ingredients and the formulation. Routes of exposure: eye contact, skin contact

Acute Toxicity: (Species, Route, End Point, Dose)
Doramectin
   Rat (M) Oral LD50 1000-2000 mg/kg
   Rat (F) Oral LD50 500-1000 mg/kg

Irritation / Sensitization: (Study Type, Species, Severity)
Doramectin
   Eye Irritation Rabbit Non-irritating
   Skin Irritation Rabbit Non-irritating

Repeated Dose Toxicity: (Duration, Species, Route, Dose, End Point, Target Organ)
Doramectin
   3 Month(s) Rat Oral 2 mg/kg/day NOEL Liver
   3 Month(s) Dog Oral 0.1 mg/kg/day NOEL Central Nervous System,

Chronic Effects/Carcinogenicity
   No carcinogenic data available. However, the carcinogenic potential of a structurally related avermectin, abamectin, has been investigated in rodents. No evidence of carcinogenicity was seen in these studies.

Reproduction & Developmental Toxicity: (Study Type, Species, Route, Dose, End Point, Effect(s))
Doramectin
   Embryo / Fetal Development Rat Oral >6 mg/kg/day NOEL Not teratogenic
   Embryo / Fetal Development Mouse Oral 3 mg/kg/day NOEL Fetotoxicity, Not Teratogenic
   Embryo / Fetal Development Rabbit Oral 0.75 mg/kg/day NOEL Maternal Toxicity, Teratogenic

Genetic Toxicity: (Study Type, Cell Type/Organism, Result)
Doramectin
   Bacterial Mutagenicity (Ames) Salmonella Negative
   Mammalian Cell Mutagenicity Mouse Lymphoma Negative
   Unscheduled DNA Synthesis Rat Hepatocyte Negative

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

Product Level Toxicity Data
Section 12 - Ecological Information

Environmental Overview: Releases to the environment should be avoided. As with other members of the avermectin family, doramectin is highly toxic to fish and certain aquatic organisms. However, once in contact with soil, it is tightly bound and does not readily desorb. It is unlikely to reach groundwater and is also biodegradable by soil microflora.

Toxicity:

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

Doramectin
- *Daphnia magna* (Water Flea) TAD EC50 48 Hours 0.00010 mg/L
- *Lepomis macrochirus* (Bluegill Sunfish) TAD LC50 96 Hours 0.011 mg/L
- *Oncorhynchus mykiss* (Rainbow Trout) TAD LC50 96 Hours 0.0051 mg/L

Bacterial Inhibition: (Inoculum, Method, End Point, Result)

Doramectin
- *Aspergillus niger* (Fungus) TAD MIC 600 mg/L
- *Clostridium perfringens* (Bacterium) TAD MIC 40 mg/L

Persistence and Degradability: No data available

Bio-accumulative Potential:

Doramectin
- Measured Log P 4.4

Mobility in Soil: No data available

Section 13 - Disposal Considerations

Disposal: Special help is available for the disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 http://www.chemclear.com.au/ and for help with the disposal of empty drums, contact DrumMuster http://www.drummuster.com.au/ where you will find contact details for your area.

Section 14 - Transport Information

ADG: Not regulated for transportation due to Special Provision AU01

As of January 1, 2015, materials offered for transport that are classified for transportation only as Marine Pollutants and which are packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 Liters or less for liquids or having a net mass per single or inner packaging of 5 kilograms or less for solids are NOT subject to IATA or IMDG transport regulations provided the general packaging requirements of those regulations are met.

UN number: UN 3082
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Doramectin)

Transport hazard class(es): 9

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Packing group: III
Environmental Hazard(s): Marine Pollutant

Please refer to the applicable dangerous goods regulations for additional information. Transport according to the requirements of the appropriate regulatory body.

Section 15 - Regulatory Information

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

Sesame oil
Australia (AICS): Present

Ethyl oleate
Australia (AICS): Present

Poison Schedule: S5
AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations.
The following ingredient: Doramectin, is mentioned in the SUSMP.

Section 16 - Other Information

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

Data Sources: The data contained in this SDS may have been gathered from confidential internal sources, raw material suppliers, or from the published 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)
SUSMP Standard for the Uniform Scheduling of Medicines & Poisons
UN Number United Nations Number

This version issued: 21 September 2021 and is valid for 5 years from this date
Supersedes: Revision issued 1 Oct 2016

Revision History:

<table>
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<tr>
<th>Date of Revision</th>
<th>Reason</th>
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<tbody>
<tr>
<td>19 Nov 2015</td>
<td>Update to Zoetis address</td>
</tr>
<tr>
<td>01 Oct 2016</td>
<td>Remove NOHSC information, revision for consistency with Zoetis organisation</td>
</tr>
<tr>
<td>21 Sep 2021</td>
<td>Periodical revision</td>
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</tbody>
</table>

Contact Points:

Zoetis 1800 814 883
Police and Fire Brigade: Dial 000

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Issued by: Zoetis Australia Pty Ltd Phone: 1800 814 883
Poisons Information Centre: 13 11 26 from anywhere in Australia
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