SAFETY DATA SHEET

Section 1: Identification

Product identifier **Doramectin Injectable Solution 10 mg/ml (Phenol Free)**

Other means of identification

Synonyms DECTOMAX® * Dectomax Injectable Endectocide

Recommended use of the chemical and restrictions on use

Recommended use Veterinary product used as Antiparasitic (veterinary); endectocide

Restrictions on use Not for human use

Details of manufacturer or importer

Company Name (NZ) Zoetis New Zealand Limited
Level 4, 8 Mahuhu Crescent
Auckland Central
Auckland 1010, New Zealand

Telephone No. 0800 963 847 (Business Hours)

Emergency No. (National Poisons Centre) 0800 POISON (0800 764 766)

Emergency No. (Emergency Services) In an emergency dial 111

Section 2: Hazard identification

Classification of the hazardous chemical

Physical hazards	Not classified.	
Health hazards	Reproductive toxicity	Category 2
	Reproductive toxicity	Effects on or via lactation
	Specific target organ toxicity following repeated exposure	Category 2 (nervous system)
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1

Label elements, including precautionary statements

Hazard symbol(s)

Health hazard Environment

Signal word Warning

Hazard statement(s) Suspected of damaging fertility or the unborn child. May cause harm to breast-fed children. May cause damage to organs (nervous system) through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist/vapours. Avoid contact during pregnancy/while nursing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Use personal protective equipment as required.

Response IF exposed or concerned: Get medical advice/attention. Collect spillage.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards which do not result in classification None.

Supplemental information None.

Section 3: Composition/information on ingredients

Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Sesame oil	8008-74-0	65-80
Ethyl oleate	111-62-6	20-25
Doramectin	117704-25-3	1

Section 4: First-aid measures

Description of necessary first aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	In the case of skin contact, immediately wash the skin with plenty of soap and water. In the event of accidental self injection or needle stick injury, wash the injury thoroughly with clean running water. Get medical attention immediately.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Ingestion	Rinse mouth. Call a physician or poison control centre immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconsious person.
Personal protection for first-aid responders	IF exposed or concerned: Get medical advice/attention. You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.
Symptoms caused by exposure	Direct contact with eyes may cause temporary irritation. Exposed individuals may experience eye tearing, redness, and discomfort. May cause reproductive effects. May cause tremors, clumsy motion of limbs/trunk (ataxia), disorientation through prolonged or repeated exposure. May cause reproductive effects.
Medical attention and special treatment	Provide general supportive measures and treat symptomatically.

Section 5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed. Material will burn in a fire.
Special protective equipment and precautions for fire fighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Hazchem code	None.
Hazards from combustion products	None.
General fire hazards	Material will burn in a fire.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Keep unnecessary personnel away.
For emergency responders	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Methods and materials for containment and cleaning up

Ensure adequate ventilation. Wear appropriate protective equipment and clothing during clean-up. Avoid release to the environment.

Contain the source of spill if it is safe to do so. Collect spill with absorbent material. Clean spill area thoroughly. Should not be released into the environment. Prevent product from entering drains.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Section 7: Handling and storage

Precautions for safe handling

Do not handle until all safety precautions have been read and understood. Avoid contact with eyes, skin, and clothing. Avoid accidental injection. Avoid prolonged exposure. Avoid contact during pregnancy/while nursing. Observe good industrial hygiene practices. Wear appropriate personal protective equipment. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Use appropriate container to avoid environmental contamination.

Conditions for safe storage, including any incompatibilities

Store locked up. Store below 30°C (86°F). Keep away from heat, sparks and open flame. Store as directed by product packaging. Use appropriate container to avoid environmental contamination. Store away from incompatible materials (see Section 10 of the SDS).

Section 8: Exposure controls/personal protection

Control parameters

Follow standard monitoring procedures.

Occupational exposure limits

Zoetis

Components	Type	Value
Doramectin (CAS 117704-25-3)	TWA	200 µg/m³

UK. OELs. Workplace Exposure Limits (WELs) (EH40/2005 (Fourth Edition 2020)), Table 1

Components	Type	Value	Form
Sesame oil (CAS 8008-74-0)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Inhalable dust.

Australia

Components	Type	Value	Form
Sesame oil (CAS 8008-74-0)	TWA	10 mg/m3	[As 'vegetable oil mists']

Biological limit values

No biological exposure limits noted for the ingredient(s).

Control banding approach

Not available.

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. General ventilation normally adequate.

Individual protection measures, for example personal protective equipment (PPE)

Eye/face protection

If contact is likely, safety glasses with side shields are recommended.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves.

Other

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

Respiratory protection

No personal respiratory protective equipment normally required. Whenever air contamination (mist, vapor or odor) is generated, respiratory protection is recommended as a precaution to minimize exposure. 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.

Thermal hazards

Not applicable.

Hygiene measures

Observe any medical surveillance requirements. When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Section 9: Physical and chemical properties

Appearance

Liquid.

Physical state

Liquid.

Form

Liquid.

Colour

Colorless to pale-yellow

Odour	Not available.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	224.0 °C (435.2 °F)
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Insoluble
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Kinematic viscosity	Not available.
Other physical and chemical parameters	
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

Section 10: Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials. Excessive heat. Avoid high temperatures. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
Incompatible materials	Strong oxidising agents.
Hazardous decomposition products	Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.

Section 11: Toxicological information

Information on likely routes of exposure

Inhalation	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Skin contact	Prolonged skin contact may cause temporary irritation.
Doramectin	Species: Rabbit Severity: Non-irritating
Eye contact	Direct contact with eyes may cause temporary irritation.
Doramectin	Species: Rabbit Severity: Non-irritating
Ingestion	May be harmful if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation. Exposure may cause temporary irritation, redness, or discomfort. May cause reproductive effects. May cause tremors, clumsy motion of limbs/trunk (ataxia), disorientation through prolonged or repeated exposure. May cause reproductive effects.

Information on toxicological effects

Acute toxicity	Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Components	Species	Test Results
Doramectin (CAS 117704-25-3)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg
Inhalation		
Dust		
LC50	Rat	0.54 mg/l, 4 hours
Oral		
LD50	Rat (F)	500 - 1000 mg/kg
	Rat (M)	1000 - 2000 mg/kg
Subchronic		
Oral		
NOEL	Dog	0.1 mg/kg/day, 3 months (Central Nervous System)
	Rat	2 mg/kg/day, 3 months (Liver)
Sesame oil (CAS 8008-74-0)		
Acute		
Dermal		
LD50	Rabbit	> 2 g/kg
Oral		
LD50	Rat	> 5 g/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Corrosivity
Doramectin — Species: Rabbit
Severity: Non-irritating

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Eye contact
Doramectin — Species: Rabbit
Severity: Non-irritating

Respiratory irritation Not available.

Respiratory or skin sensitisation

Respiratory sensitisation Not a respiratory sensitiser.

Skin sensitisation This product is not expected to cause skin sensitisation.

Skin Sensitisation
Doramectin — LLNA, concentrations up to 5%
Result: Negative
Species: Mouse

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Mutagenicity
Doramectin — Bacterial Mutagenicity (Ames)
Result: Negative
Species: Salmonella

In vivo Micronucleus
Result: Negative
Species: Mouse

Mammalian Cell Mutagenicity
Result: Negative
Species: Mouse Lymphoma

Unscheduled DNA Synthesis
Result: Negative
Species: Rat Hepatocyte

Carcinogenicity Based on available data, the classification criteria are not met.

ACGIH Carcinogens

Not available.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

Reproductive toxicity Suspected of damaging fertility or the unborn child. May cause harm to breastfed babies.

Developmental effects

Doramectin	> 6 mg/kg/day Embryo / Fetal Development, Not teratogenic Result: NOEL Species: Rat Organ: Oral 0.75 mg/kg/day Embryo / Fetal Development, Maternal Toxicity, Teratogenic Result: NOEL Species: Rabbit Organ: Oral 3 mg/kg/day Embryo / Fetal Development, Fetotoxicity, Not Teratogenic Result: NOEL Species: Mouse Organ: Oral

Reproductivity

Doramectin	0.3 mg/kg/day 2-generation, No effects except lower pup weight during lactation Result: NOEL Species: Rat Organ: Oral

Specific target organ toxicity - single exposure Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - repeated exposure May cause damage to organs (nervous system) through prolonged or repeated exposure.

Aspiration hazard Not an aspiration hazard.

Narcotic effects Due to lack of data the classification is not possible.

Chronic effects May cause damage to organs through prolonged or repeated exposure.

Section 12: Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects. Avoid release to the environment.

Components		Species	Test Results
Doramectin (CAS 117704-25-3)			
	EC50	Activated Sludge	> 1000 mg/l, 3 hours
	MIC	Aspergillus niger (Fungus)	600 mg/l
		Clostridium perfingens (Bacterium)	40 mg/l
	NOEC	Eisenia foetida (Earthworm)	0.89 mg/kg, 56 days (reproduction)
Acute			
	LC50	Eisenia foetida (Earthworm)	> 1000 mg/kg, 14 days
			> 1000 mg/kg, 28 days
			> 1000 mg/kg, 7 days
Aquatic			
Algae	MIC	Selenastrum capricornutum (Green Alga)	> 0.026 mg/l, 14 days
	NOEL	Selenastrum capricornutum (Green Alga)	0.026 mg/l, 14 days
Acute			
Crustacea	EC50	Daphnia magna (Water Flea)	0.0001 mg/l, 48 Hours
Fish	LC50	Lepomis macrochirus (Bluegill Sunfish)	0.011 mg/l, 96 Hours
		Oncorhynchus mykiss (rainbow trout)	0.0051 mg/l, 96 Hours

Persistence and degradability No data available for this product. The following information is available for the individual ingredients.

Photolysis

Half-Life (Photolysis-Aqueous)

Doramectin	4.45 hours, @ 25C

Biodegradability

Percent Degradation (Aerobic Biodegradation)

Doramectin	25.5 % OECD 301D Test Duration: 28 days

Percent Degradation (Aerobic Biodegradation-Soil)

Doramectin	50 % Loam DT50, 61-79 days

Bioaccumulative potential No data available for this product. The following information is available for the individual ingredients.

Partition coefficient n-octanol / water (log Kow)

Doramectin	4.4

Mobility in soil No data available for this product. The following information is available for the individual ingredients.

Adsorption

Soil/Sediment Sorption - Log Koc

Doramectin	3.88 - 4.94

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Section 13: Disposal considerations

Disposal methods Avoid release to the environment. Do not allow this material to drain into sewers/water supplies. Do not discharge into drains, water courses or onto the ground. Do not contaminate ponds, waterways or ditches with chemical or used container. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater. Dispose of contents/container in accordance with local/regional/national/international regulations.

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Special precautions to be taken during disposal Dispose in accordance with all applicable regulations.

Method of disposal that should not be used None known.

Section 14: Transport information

IATA

UN number	UN3082
UN proper shipping name	Environmentally hazardous substances, liquid, n.o.s. (Doramectin)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN3082
UN proper shipping name	Environmentally hazardous substances, liquid, n.o.s. (Doramectin), MARINE POLLUTANT
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	Yes
EmS	F-A, S-F
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.

IATA; IMDG

Marine pollutant

General information	IMDG Regulated Marine Pollutant. 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 ICAO/IATA, IMDG, or ADR transport regulations provided the general packaging requirements of those regulations are met. Refer to ICAO/IATA A197, IMDG 2.10.2.7, ADR SP 375. 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

Applicable regulations	Registered pursuant to the ACVM Act 1997, No. A6199 See www.foodsafety.govt.nz for registration conditions. Approved pursuant to the HSNO Act 1996, Code No. HSR100758. See www.epa.govt.nz for approval controls.

New Zealand Inventory of Chemicals (NZIoC): Registration status

Doramectin (CAS 117704-25-3)	May be used as a single component chemical under an appropriate group standard
Ethyl oleate (CAS 111-62-6)	May be used as a single component chemical under an appropriate group standard
Sesame oil (CAS 8008-74-0)	May be used as a single component chemical under an appropriate group standard

Section 16: Other information

Issue date	08-September-2023
Version No.	01
Key abbreviations or acronyms used	Not available.
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Revision information	Product and Company Identification: Synonyms Composition / Information on Ingredients: Ingredients Physical & Chemical Properties: Multiple Properties Transport Information: Material Transportation Information HazReg Data: Pacific Rim GHS: Qualifiers