SAFETY DATA SHEET

Section 1: Identification

Product identifier **Moxidectin 0.5% Pour-On**

Other means of identification

Synonyms CYDECTIN Pour-On * CYDECTIN (moxidectin) 0.5% Pour-On

Recommended use of the chemical and restrictions on use

Recommended use Veterinary product used as anti-worm agent (anthelmintic)

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	Flammable liquids	Category 4
Health hazards	Skin corrosion/irritation	Category 2
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)

Exclamation mark Environment

Signal word Warning

Hazard statement(s) Combustible liquid. Causes skin irritation. Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.

Storage Store in a well-ventilated place.

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
Petroleum solvent naphtha, light aromatic	64742-95-6	15

Butene, homopolymer	9003-29-6	10
Moxidectin Moxidectin Technical Material (MTM)	113507-06-5	0.5
Butylated hydroxyanisole	25013-16-5	<0.1

Composition comments Other components below reportable levels.

Section 4: First-aid measures

Description of necessary first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist. Call a poison centre or doctor/physician if you feel unwell.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Get medical advice/attention if you feel unwell.

Eye contact Immediately flush eyes with plenty of water 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. Wash contaminated clothing before reuse.

Symptoms caused by exposure Direct contact with eyes may cause temporary irritation. Exposed individuals may experience eye tearing, redness, and discomfort. Causes skin irritation. Signs and symptoms might include skin rash, itching, redness or swelling. Prolonged exposure may cause chronic effects. Adverse effects associated with therapeutic use include clumsy motion of limbs/trunk (ataxia), drowsiness, depression, salivation.

Medical attention and special treatment Provide general supportive measures and treat symptomatically. Monitor respiratory, cardiac and central nervous system. Symptoms may be delayed.

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 The product is combustible, and heating may generate vapours which may form explosive vapour/air mixtures. During fire, gases hazardous to health may be formed.

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 In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Hazchem code None.

Hazards from combustion products None.

General fire hazards Combustible liquid.

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. Ensure adequate ventilation. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Do not breathe mist or vapour. Avoid contact with eyes, skin, and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spillages cannot be contained.

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. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Wear appropriate protective equipment and clothing during clean-up. Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Clean surface thoroughly to remove residual contamination.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

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

Combustible Liquid. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Wear appropriate personal protective equipment. Use this product with adequate ventilation. Do not breathe mist/vapours. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash thoroughly after handling. Avoid release to the environment. Do not empty into drains.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat, sparks and open flame. Protect from sunlight. Store away from incompatible materials (see Section 10 of the SDS). Use appropriate container to avoid environmental contamination.

Section 8: Exposure controls/personal protection

Control parameters

Follow standard monitoring procedures.

Occupational exposure limits

Zoetis

Components	Type	Value
Moxidectin (CAS 113507-06-5)	TWA	70 µg/m3

Biological limit values

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

Control banding approach

Not available.

Appropriate engineering controls

Provide adequate general and local exhaust ventilation. 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. Provide eyewash station and safety shower.

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

Eye/face protection

Wear safety goggles as minimum protection (face shield recommended if splashing is possible).

Skin protection

Hand protection

Wear appropriate chemical resistant gloves.

Other

Wear suitable protective clothing. Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. 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. Whenever air contamination (mist, vapor or odor) is generated, respiratory protection is recommended as a precaution to minimize exposure.

Thermal hazards

Not applicable.

Hygiene measures

When using do not 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

Oily. Liquid.

Physical state

Liquid.

Form

Liquid.

Colour

Clear. Amber.

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	65.5 °C (149.9 °F) Closed cup
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	1.8 %
Explosive limit – upper (%)	12.6 %
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Immiscible
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.
Specific gravity	0.92
Viscosity	26 cps @ 20C/68F

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. Sunlight. 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	Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Moxidectin	Species: Rabbit Severity: Mild
Eye contact	Direct contact with eyes may cause temporary irritation.
Moxidectin	Species: Rabbit Severity: Moderate
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. Exposed individuals may experience eye tearing, redness, and discomfort. Causes skin irritation. Signs and symptoms might include skin rash, itching, redness or swelling. Prolonged exposure may cause chronic effects. Adverse effects associated with therapeutic use include clumsy motion of limbs/trunk (ataxia), drowsiness, depression, salivation.

Information on toxicological effects

Acute toxicity May be harmful if swallowed.

Components	Species	Test Results
Butylated hydroxyanisole (CAS 25013-16-5)		
Acute		
Intraperitoneal		
LD50	Rat	881 mg/kg

Components	Species	Test Results
Oral		
LD50	Mouse	1100 mg/kg
	Rat	2000 mg/kg
Chronic		
Oral		
LOAEL	Rat	3300 mg/kg, 12 days Liver Blood
Moxidectin (CAS 113507-06-5)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg
Oral		
LD50	Rat	106 mg/kg
Chronic		
Oral		
NOEL	Mouse	30 mg/kg/day, 2 years (Not carcinogenic)
	Rat	100 mg/kg/day, 2 years (Not carcinogenic)
Subacute		
Oral		
LOEL	Rat	100 mg/kg/day, 28 days (Central Nervous System)
NOEL	Mouse	75 mg/kg/day, 28 days (Central nervous system)
Subchronic		
Oral		
NOEL	Dog	10 mg/kg/day, 90 days (Central Nervous System)
	Rat	50 mg/kg/day, 13 weeks (Central Nervous System)

Skin corrosion/irritation Causes skin irritation.

Corrosivity
Moxidectin — Species: Rabbit
Severity: Mild

Serious eye damage/eye irritation Due to partial or complete lack of data the classification is not possible. Direct contact with eyes may cause temporary irritation.

Eye contact
Moxidectin — Species: Rabbit
Severity: Moderate

Respiratory irritation Not available.

Respiratory or skin sensitisation

Respiratory sensitisation Due to partial or complete lack of data the classification is not possible.

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

Skin Sensitisation
Moxidectin — Species: Guinea Pig
Severity: Negative

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Mutagenicity
Moxidectin — In Vitro Bacterial Mutagenicity (Ames)
Result: Negative
Species: Salmonella , E. coli

Butylated hydroxyanisole — In Vitro Bacterial Mutagenicity (Ames)
Result: Negative
Species: Salmonella

Moxidectin — In Vitro HGPRT Forward Gene Mutation Assay
Result: Negative
Species: Chinese Hamster Ovary (CHO) cells

Mutagenicity

Moxidectin	In Vivo Cytogenetics Result: Negative Species: Rat Bone Marrow
Butylated hydroxyanisole	In Vivo Micronucleus Result: Negative Species: Bone marrow
Moxidectin	In Vivo Unscheduled DNA Synthesis Result: Negative Species: Rat Hepatocyte

Carcinogenicity Based on available data, the classification criteria are not met. None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA, or ACGIH as a carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Butylated hydroxyanisole (CAS 25013-16-5)	2B Possibly carcinogenic to humans.
Petroleum solvent naphtha, light aromatic (CAS 64742-95-6)	3 Not classifiable as to carcinogenicity to humans.

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

Developmental effects

Moxidectin	1 mg/kg/day Embryo / Fetal Development, (Maternal toxicity, Not teratogenic) Result: NOEL Species: Rabbit Organ: Oral route
Butylated hydroxyanisole	30 g/kg Embryo / Fetal Development, teratogenic Result: LOEL Species: Rat Organ: Oral
Moxidectin	5 mg/kg/day Embryo / Fetal Development, (Negative) Result: NOEL Species: Rat Organ: Oral route 5 mg/kg/day Embryo / Fetal Development, (Not Teratogenic, Embryotoxicity, Maternal Toxicity) Result: NOEL Species: Rat Organ: Oral route

Specific target organ toxicity - single exposure Based on available data, the classification criteria are not met.

Specific target organ toxicity - repeated exposure Based on available data, the classification criteria are not met. This product may affect Nervous system. through prolonged or repeated exposure.

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

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

Chronic effects Prolonged exposure may cause chronic effects. May cause central nervous system effects.

Section 12: Ecological information

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

Components		Species	Test Results
Moxidectin (CAS 113507-06-5)			
Aquatic			
Algae	ErC50	Green algae (Selenastrum capricornutum)	> 87 ppb, 72 Hours
Crustacea	EC50	Daphnia magna (Water Flea)	30 ppt, 48 Hours
Fish	LC50	Lepomis macrochirus (Bluegill Sunfish)	0.62 ppb, 96 Hours
		Oncorhynchus mykiss (rainbow trout)	0.16 ppb, 96 Hours

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

Biodegradability

Percent Degradation (Aerobic Biodegradation)

Moxidectin	Soil DT50, ca. 2 months @ 25°C / 77°F

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

Partition coefficient n-octanol / water (log Kow)

Moxidectin	4.77, @ 25°C / 77°F

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

Adsorption

Soil/Sediment Sorption - Log Koc

Moxidectin	4.3 - 4.6

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 discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. 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. (Moxidectin)
Transport hazard class(es)	
Class	9
Subsidiary hazard	-
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. (Moxidectin), MARINE POLLUTANT
Transport hazard class(es)	
Class	9
Subsidiary hazard	-
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. A6203.
See www.foodsafety.govt.nz for registration conditions.
Approved pursuant to the HSNO Act 1996, No. HSR100759.
See www.epa.govt.nz for approval controls.

New Zealand Inventory of Chemicals (NZIoC): Registration status

Butene, homopolymer (CAS 9003-29-6)	Does not have individual approval but may be used under an appropriate group standard
Butylated hydroxyanisole (CAS 25013-16-5)	Does not have individual approval but may be used under an appropriate group standard
Moxidectin (CAS 113507-06-5)	HSNO Approved
Petroleum solvent naphtha, light aromatic (CAS 64742-95-6)	Does not have individual approval but may be used under an appropriate group standard

Section 16: Other information

Issue date 04-March-2024

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
Transport Information: Proper Shipping Name/Packing Group
GHS: Classification