

# SAFETY DATA SHEET



## 1. Identification

<b>Product identifier</b>	<b>Moxidectin Oral Gel</b>
<b>Other means of identification</b>	
<b>Synonyms</b>	QUEST® Gel * QUEST GEL * QUEST® 2% Equine Oral Gel * Moxidectin equine oral gel
<b>Recommended use</b>	Veterinary product used as anti-worm agent (anthelmintic)
<b>Recommended restrictions</b>	Not for human use
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Company Name (USA)</b>	Zoetis Inc. 10 Sylvan Way Parsippany, New Jersey 07054 (USA)
<b>Rocky Mountain Poison and Drug Center</b>	1-866-531-8896
<b>Product Support/Technical Services</b>	1-888-963-8471
<b>Emergency telephone numbers</b>	CHEMTREC (24 hours): 1-800-424-9300 International CHEMTREC (24 hours): +1-703-527-3887
<b>Company Name (CA)</b>	Zoetis Canada Inc. 16740 Trans-Canada Highway Kirkland, Quebec, H9H 4M7
<b>Emergency telephone number</b>	International CHEMTREC (24 hours): +1-703-527-3887
<b>Contact E-Mail</b>	productsupport@zoetis.com
<b>Product Support</b>	1-800-461-0917

All Safety Data Sheets are available via our Zoetis Canada website at <https://www.zoetis.ca/sds/sds.aspx>

**Supplier** Not available.

## 2. Hazard identification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Specific target organ toxicity following repeated exposure	Category 2 (central nervous system)
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1

### Label elements



<b>Signal word</b>	Warning
<b>Hazard statement</b>	May cause damage to organs (central nervous system) through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.
<b>Precautionary statement</b>	
<b>Prevention</b>	Do not breathe dust/fume/gas/mist/vapours/spray. Avoid release to the environment.
<b>Response</b>	Get medical advice/attention if you feel unwell. Collect spillage.
<b>Storage</b>	Store away from incompatible materials.

<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Supplemental information</b>	None.
<b>Other hazards</b>	None known.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Benzyl alcohol		100-51-6	4
Moxidectin		113507-06-5	2

### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist. For breathing difficulties, oxygen may be necessary.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water. Get medical advice/attention if you feel unwell. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Remove contact lenses, if present and easy to do.
<b>Ingestion</b>	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 unconscious person.
<b>Most important symptoms/effects, acute and delayed</b>	May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Direct contact with eyes may cause temporary irritation. Exposed individuals may experience eye tearing, redness, and discomfort.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. May cause central nervous system effects.
<b>General information</b>	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Use water spray to cool unopened containers.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Ventilate the contaminated area. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapour. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. Avoid contact with eyes, skin, and clothing. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Avoid release to the environment. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Prevent entry into waterways, sewer, basements or confined areas. Ensure adequate ventilation.  Large Spills: Stop the flow of material, if this is without risk. Clean surface thoroughly to remove residual contamination.  Small Spills: 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. Clean contaminated surface thoroughly.

**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. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

**Precautions for safe handling** Do not breathe mist or vapour. Do not taste or swallow. Use this product with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store locked up. Keep away from heat, sparks and open flame. Store in tightly closed container. Store in a well-ventilated place. Do not allow material to freeze. Store at 15-30°C (59-86°F). Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### 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** Moxidectin - Zoetis OEB 3 (control exposure to the range of 10ug/m3 to < 100ug/m3)

**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. Ensure adequate ventilation, especially in confined areas. Provide eyewash station. Keep air contamination levels below the exposure limits or within the OEB range listed above in this section. Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or aerosols.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses or goggles if eye contact is possible.

#### Skin protection

**Hand protection** Wear appropriate chemical resistant gloves. Impervious gloves are recommended if skin contact with drug product is possible and for bulk processing operations.

**Other** Wear suitable protective clothing. Use of an impervious apron is recommended. Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations.

**Respiratory protection** No personal respiratory protective equipment normally required. Chemical respirator with organic vapour cartridge, full facepiece, dust and mist filter. 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.

**General hygiene considerations** 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.

## 9. Physical and chemical properties

<b>Appearance</b>	gel.
<b>Physical state</b>	Liquid.
<b>Form</b>	Solid.
<b>Colour</b>	Clear.
<b>Odour</b>	Not available.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.

<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit – upper (%)</b>	Not available.
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidising properties</b>	Not oxidising.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Keep away from heat, spark, open flames and other sources of ignition. Contact with incompatible materials. Protect from freezing. Avoid release to the environment.
<b>Incompatible materials</b>	Avoid contact with oxidisers or reducing agents.
<b>Hazardous decomposition products</b>	Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. Carbon dioxide, carbon monoxide, and oxides of nitrogen.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Under normal conditions of intended use, this material is not expected to be an inhalation hazard. Prolonged inhalation may be harmful.	
<b>Skin contact</b>	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.	
Benzyl alcohol		Species: Guinea Pig Severity: Moderate
Moxidectin		Species: Rabbit Severity: Mild
Benzyl alcohol		Species: Rabbit Severity: Minimal
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.	
Moxidectin		Species: Rabbit Severity: Moderate
Benzyl alcohol		Species: Rabbit Severity: Severe
<b>Ingestion</b>	May cause discomfort if swallowed.	

**Symptoms related to the physical, chemical and toxicological characteristics**

May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Direct contact with eyes may cause temporary irritation. Exposed individuals may experience eye tearing, redness, and discomfort.

**Information on toxicological effects**

**Acute toxicity** Not acutely toxic

<b>Product</b>	<b>Species</b>	<b>Test Results</b>
Moxidectin Oral Gel		
<b><u>Acute</u></b>		
<b>Dermal</b>		
ATE		> 10000 mg/kg
<b>Oral</b>		
ATE		4345 mg/kg

<b>Components</b>	<b>Species</b>	<b>Test Results</b>
Benzyl alcohol (CAS 100-51-6)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	2000 mg/kg
<b>Inhalation</b>		
LC50	Rat	> 4.178 mg/l 1000 mg/l, 8 Hours
<b>Oral</b>		
LD50	Mouse	1580 mg/kg
	Rat	1230 mg/kg

Moxidectin (CAS 113507-06-5)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rat	> 2000 mg/kg
<b>Oral</b>		
LD50	Rat	106 mg/kg
<b><u>Chronic</u></b>		
<b>Oral</b>		
NOEL	Mouse	30 mg/kg/day, 2 years (Not carcinogenic)
	Rat	100 mg/kg/day, 2 years (Not carcinogenic)
<b><u>Subacute</u></b>		
<b>Oral</b>		
LOEL	Rat	100 mg/kg/day, 28 days (Central Nervous System)
NOEL	Mouse	75 mg/kg/day, 28 days (Central nervous system)
<b><u>Subchronic</u></b>		
<b>Oral</b>		
NOEL	Dog	10 mg/kg/day, 90 days (Central Nervous System)
	Rat	50 mg/kg/day, 13 weeks (Central Nervous System)

**Skin corrosion/irritation** Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

**Corrosivity**  
Moxidectin

Species: Rabbit  
Severity: Mild

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

**Eye contact**

Moxidectin

Species: Rabbit  
Severity: Moderate

Benzyl alcohol

Species: Rabbit  
Severity: Severe**Respiratory or skin sensitisation****Respiratory sensitisation** Not a respiratory sensitiser.**Skin sensitisation** This product is not expected to cause skin sensitisation.**Skin Sensitisation**

Moxidectin

Species: Guinea Pig  
Severity: Negative**Germ cell mutagenicity**

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

**Mutagenicity**

Moxidectin

In Vitro Bacterial Mutagenicity (Ames)  
Result: Negative  
Species: Salmonella , E. coliIn Vitro HGPRT Forward Gene Mutation Assay  
Result: Negative  
Species: Chinese Hamster Ovary (CHO) cellsIn Vivo Cytogenetics  
Result: Negative  
Species: Rat Bone MarrowIn Vivo Unscheduled DNA Synthesis  
Result: Negative  
Species: Rat Hepatocyte**Carcinogenicity**

Not classifiable as to carcinogenicity to humans. Due to partial or complete lack of data the classification is not possible.

**Reproductive toxicity**

This product is not expected to cause reproductive or developmental effects. 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 route5 mg/kg/day Embryo / Fetal Development, (Negative)  
Result: NOEL  
Species: Rat  
Organ: Oral route5 mg/kg/day Embryo / Fetal Development, (Not Teratogenic, Embryotoxicity, Maternal Toxicity)  
Result: NOEL  
Species: Rat  
Organ: Oral route**Specific target organ toxicity - single exposure** Not classified.**Specific target organ toxicity - repeated exposure** May cause damage to organs (central nervous system) through prolonged or repeated exposure.**Aspiration hazard** Not an aspiration hazard.**Chronic effects** Prolonged inhalation may be harmful. May cause damage to organs through prolonged or repeated exposure.

**Further information** Adverse effects associated with therapeutic use include clumsy motion of limbs/trunk (ataxia), drowsiness, depression, and salivation.

## 12. Ecological information

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

Components	Species	Test Results
Benzyl alcohol (CAS 100-51-6)		
<b>Aquatic</b>		
Algae	EC50	Pseudokirchneriella subcapitata (Green Alga) 500 mg/l, 72 Hours
Crustacea	EC50	Daphnia magna (Water Flea) 230 mg/l, 48 Hours 66 mg/l, 21 day(s) Toxicity for reproduction
Fish	LC50	Pimephales promelas (Fathead Minnow) 460 mg/l, 96 Hours
<i>Acute</i>		
Fish	LC50	Bluegill (Lepomis macrochirus) 10 mg/l, 96 hours
Moxidectin (CAS 113507-06-5)		
<b>Aquatic</b>		
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** The active ingredient in this formulation is expected to bind to soil or sediment.

### Biodegradability

#### Percent Degradation (Aerobic Biodegradation)

Benzyl alcohol 92 - 96 %  
Test Duration: 28 days

**Bioaccumulative potential** See below

#### Partition coefficient n-octanol / water (log Kow)

Benzyl alcohol 1.1  
Moxidectin 4.77

**Mobility in soil** The active ingredient in this formulation is expected to bind to soil or sediment.

### 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.

## 13. Disposal considerations

**Disposal instructions** Avoid release to the environment. 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.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** 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.

**14. Transport information****TDG**

**UN number** UN3082  
**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Moxidectin)  
**Transport hazard class(es)**  
**Class** 9  
**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards** Yes  
**Special precautions for user** Not available.

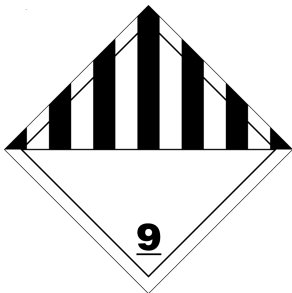
**IATA**

**UN number** UN3082  
**UN proper shipping name** Environmentally hazardous substance, liquid, n.o.s. (Moxidectin)  
**Transport hazard class(es)**  
**Class** 9  
**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards** Yes  
**ERG Code** 9L  
**Special precautions for user** Not available.  
**Other information**  
**Passenger and cargo aircraft** Allowed with restrictions.  
**Cargo aircraft only** Allowed with restrictions.

**IMDG**

**UN number** UN3082  
**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Moxidectin), 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** Not available.

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

**IATA; IMDG; TDG**



## 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.

## 15. Regulatory information

### Canadian regulations

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

#### Controlled Drugs and Substances Act

Not regulated.

#### Export Control List (CEPA 1999, Schedule 3)

Not listed.

#### Greenhouse Gases

Not listed.

#### Precursor Control Regulations

Not regulated.

### International regulations

#### Stockholm Convention

Not applicable.

#### Rotterdam Convention

Not applicable.

#### Kyoto Protocol

Not applicable.

#### Montreal Protocol

Not applicable.

#### Basel Convention

Not applicable.

### International Inventories

#### Country(s) or region

#### Inventory name

#### On inventory (yes/no)\*

Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information

**Issue date** 05-June-2017

**Revision date** 05-July-2022

**Version No.** 04

**List of abbreviations** AICIS: Australian Inventory of Industrial Chemicals.  
ATE: Acute Toxicity Estimate according to REGULATION (EC) No 1272/2008 (CLP).

**Disclaimer** Zoetis Inc. believes that the information contained in this Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time. The information in the sheet was written based on the best knowledge and experience currently available.

**Revision information** Transport Information: Material Transportation Information